



Enabling Grids for E-science

# EGEE-III and collaborating projects

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- **EGEE-III**
  - To be funded under European Commission call INFRA-2007-1.2.3
  - 32M€ compared to ~37M € for EGEE-II
- **Key objectives**
  - Expand/optimize existing EGEE infrastructure, include more resources and user communities
  - Prepare migration from a project-based model to a sustainable federated infrastructure based on National Grid Initiatives
- **2 year period – May 2008 to April 2010**
  - No gap between EGEE-II and EGEE-III
- **Consortium**
  - Now structured on a national basis (National Grid Initiatives/Joint Research Units)
  - 43 partners (compared to 90+ in EGEE-II)

<i><b>Networking activities</b></i>	<i><b>Specific Service Activities</b></i>
NA1: Management	SA1: Operations
NA2: Dissemination	SA2: Networking Support
NA3: Training	SA3: Integration, testing & Cert.
NA4: Applications	<i><b>Joint Research Activities</b></i>
NA5: International Coop. & Policy	JRA1: Middleware engineering

Project	Description	Most relevant EGEE-III activities for collaboration
BalticGrid-II 04/10	The BalticGrid-II project is designed to increase the impact, adoption and reach of the recently built-up e-Infrastructure in the Baltic States.	SA1. EGEE will collaborate with BalticGrid-II to ensure extension of the EGEE infrastructure towards the Baltic States.
BEinGRID End date: 11/09	The BEinGRID consortium is composed of 75 partners who are running eighteen business experiments designed to implement and deploy Grid solutions in industrial key sectors.	NA2, NA4. Several BEinGRID experiments are built on top of EGEE technologies and supported via the EGEE-II Industry Task Force. NA2 will work with BEinGRID on business related prototypes and NA4 will liaise with BEinGRID on license related issues.
EELA-2	EELA-2 will strongly stimulate widespread Grid uptake by new cross-border user communities extending over several regions, providing advanced capabilities to more researchers. The main aim is to foster scientific collaboration between various new Grid user communities.	SA1, SA3. EGEE will collaborate with EELA-2 to ensure extension of the EGEE infrastructure towards Latin America. Further EELA-2 is expected to contribute to multi-platform support of gLite.
EGI_DS 11/09	The EGI Design Study represents a project for the conceptual setup and operation of a new organizational model of a sustainable pan-European grid infrastructure. It will address key questions concerning the assessment of technical and financial feasibility of such a sustainable grid service.	NA1, NA5. The project will work closely with EGEE and related infrastructure projects to permit a transition into an EGI-like structure before the end of the next phase of those projects (envisioned in spring 2010). The close relationship established with these projects will ensure that the EGI design project can profit from the experience and expertise gathered across more than 40 countries and engage with a wide range of research and industrial user communities supported by the current infrastructures.

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ETICS-2	ETICS-2 aims at supporting the widespread adoption of grid technologies by promoting and expanding the use of grid-based software engineering technologies by existing and new communities.	SA3. EGEE-III will collaborate with ETICS-2 on software build and test infrastructures and expects ETICS-2 to complement the planned efforts in SA3.
EUFORIA	EUFORIA intends to use and build on EGEE-II infrastructure and experiences to provide grid technology for the ITER modelling activities in Europe supplementing the Fusion VO stellarator-centric activities.	NA4. The fusion community is one of the potential future major Grid users and EGEE will collaborate with EUFORIA to ensure its infrastructure can be successfully exploited by the fusion community. This work will in particular proceed through the EGEE-III fusion cluster.
GENESI_DR	GENESI-DR will establish an open Earth Science Digital Repository access that will be the basis for Science users to seamlessly access and share all data, information, products and knowledge available from participating key centres.	NA4. The GENESI-DR consortium will work with the Earth Science cluster in NA4 to ensure that Earth Science users have proper access to the GENESI-DR data holding and services.
GridTalk	GridTalk is an action to better coordinate reporting about European Grid projects and their scientific impact to the public, the broader scientific community and decision makers in government and industry.	NA2. EGEE will collaborate with GridTalk to highlight the scientific impact of the EGEE infrastructure. GridTalk will particularly interact with NA2 in EGEE-III.

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OGF-EUROPE	The Project aims to shape EU & global priorities while emphasising the need for open standards and a level playing field for all participants within the region. It will increase the ability of industry and commerce to influence requirements for a more competitive ICT infrastructure towards i2010.	NA2, SA3, JRA1. EGEE-III will contribute its experience to standardization processes within the remit of WP2 activities of OGF-EUROPE on requirements notably for the Grid Interoperability Now (GIN) Working Group. This includes particularly middleware standards but also business-related activities.
SEE-GRID-SCI	SEE-GRID-SCI will strongly stimulate widespread Grid uptake by new cross-border user communities extending over the region, providing advanced capabilities to more researchers. The main aim is to foster scientific collaboration between various new Grid user communities in South-East-European countries, with an emphasis of strategic environmental applications such as seismology and meteorology.	SA1. EGEE will continue to collaborate with SEE-GRID-SCI to ensure its reach into the South-East European region.
OMII-UK 12/09	OMII-UK aims to provide software and support to enable a sustained future for the UK e-Science community and its international collaborators.	NA4. EGEE-III will liaise with OMII-UK on the usage of higher level middleware services in particular the TAVERNA workflow system.

Project Name	Description	Collaboration with EGEE-III
@neurIST End date: 12/09	@neurIST will provide an IT infrastructure for the management, integration and processing of data associated with the diagnosis and treatment of cerebral aneurysm and subarachnoid haemorrhage.	@neurIST collaborates with the EGEE Life Sciences communities to establish common requirements and best practices.
ACGT End date: 12/09	The ACGT project is developing an advanced Grid architecture allowing the analysis and comparison of both clinical and genetic results within large scale databases in order to perform a fast diagnosis and to define accurate therapeutic countermeasures.	ACGT collaborates with the EGEE Life Sciences communities to establish common requirements and best practices.
AssessGrid End date: 12/08	AssessGrid addresses the risk awareness and consideration in Service Level Agreement (SLA) negotiation, self-organising fault-tolerant actions, and capacity planning in Grids.	AssessGrid and EGEE aim to collaborate in the definition of concrete guarantee terms of SLAs. AssessGrid is using EGEE's resource usage data to develop their models.
CoreGRID End date: 08/08	The CoreGRID project aims at strengthening and advancing scientific and technological excellence in the area of Grid and Peer-to-Peer technologies.	CoreGRID collaborates with EGEE on standardisation and policy issues and uses EGEE as one of the platforms for their interoperability tests.
CYCLOPS End date: 05/08	CYCLOPS aims to bridge the gap between the Grid and the GMES (Global Monitoring for Environment and Security) communities.	CYCLOPS uses the EGEE infrastructure and extends its user base.

<b>DEGREE</b> End date: 05/08	DEGREE project aims to bridge the Earth Science and Grid communities throughout Europe, ensure that Earth Science requirements are satisfied in Grid technology, and disseminate and promote uptake of Grid in wider Earth Science community.	DEGREE collaborates with the EGEE Earth Science communities to establish common requirements and best practices.
<b>DEISA</b> End date: 04/09	DEISA is a consortium of leading national supercomputing centres that currently deploys and operates a persistent, production quality, distributed supercomputing environment with continental scope. It aims to enable scientific discovery by enhancing European capabilities in the area of high performance computing.	DEISA collaborates with EGEE on mutual interoperability towards seamless access between the infrastructures.
<b>Edutain@Grid</b> End date: 08/09	Edutain@Grid aims to develop a Grid-based framework allowing responsive and interactive applications to exploit technology that has previously been applied to “big science” projects. Edutain@Grid extends the use base of EGEE technologies.	Edutain@Grid aims to develop a Grid-based framework allowing responsive and interactive applications to exploit technology that has previously been applied to “big science” projects. Edutain@Grid extends the use base of EGEE technologies.
<b>EC-GIN</b> End date: 10/09	A collaboration of European and Chinese partners, EC-GIN will develop tailored network technology to support Grid applications. This will be supplemented with a secure and incentive-based Grid Services network traffic management system to balance network and Grid performance demands and resource use.	EC-GIN collaborates with the EGEE networking activity, SA2, to ensure its developments will eventually be usable by EGEE.



<b>EMBRACE</b> End date: 01/10	The EMBRACE project will optimise informatics and information exploitation by pure and applied biological scientists in both the academic and commercial sectors,	EMBRACE collaborates with the EGEE Life Sciences communities on the usage of the EGEE infrastructure and to establish common requirements and best practices.
<b>EUIndiaGrid</b> End date: 09/08	EU-IndiaGrid is the first European and Indian Grid-focused project.	It supports interconnectivity between EGEE and the Indian Grid infrastructures, Garuda India Grid and Department of Atomic Energy Grid.
<b>GÉANT2</b> End date: 08/08	GÉANT2 is the seventh generation pan-European research and education network, successor to the pan-European multi-gigabit research network GÉANT.	The EGEE infrastructure depends on GÉANT for its network connectivity and close links have been set up between GÉANT and SA2.
<b>g-Eclipse</b> End date: 06/09	The g-Eclipse project aims to build an integrated workbench framework to access the power of existing Grid infrastructures.	The general middleware independent framework from the g-Eclipse project is used by application developers for the development services exploiting the EGEE infrastructure.
<b>Health-e-Child</b> End date: 12/09	Health-e-Child aims to develop an integrated healthcare platform for European pediatrics, providing seamless integration of traditional and new biomedical information sources.	It will use gLite, on top of which high level medical services will be developed for end-user clinicians and other medical applications.
<b>KnowARC</b> End date: 05/09	The KnowARC project aims to improve and extend the existing state-of-the-art technology found in the Advanced Resource Connector (ARC) middleware.	Among other things, KnowARC is also working on the interoperability between ARC and gLite middleware.
<b>myGrid</b>	myGrid is a suite of components designed to support in silico science.	myGrid collaborates with EGEE on interfacing the Taverna workbench to the EGEE infrastructure.



NESSI	NESSI aims to provide a unified view for European research in Services Architectures and Software Infrastructures	EGEE provides its experience in operating a large scale infrastructure as input into NESSI.
NESSI-Grid End date: 10/08	NESSI-Grid's objective is to actively assist NESSI in the implementation of its mission and achievement of its goals in Grid-related areas.	NESSI-Grid will investigate users' needs and ways of satisfying them in close cooperation with Grid, Service Oriented Architecture, and IT Utilities agents.
OMII-UK End date: 12/09	OMII-UK aims to provide software and support to enable a sustained future for the UK e-Science community and its international collaborators.	It is working with EGEE through OMII-Europe (ending 04/08) and ETICS.
OSG End date: 10/10	The OSG is a distributed computing infrastructure for large-scale scientific research. The OSG Consortium's alliance of universities, national laboratories, scientific collaborations and software developers brings petascale computing and storage resources into a uniform shared cyberinfrastructure.	OSG and EGEE work on mutual interoperability, which has been fully achieved in EGEE-II to allow user communities to exploit both infrastructures without extra effort.
TeraGrid End date: 08/10	TeraGrid is an open scientific discovery infrastructure combining top class resources at nine partner sites to create an integrated computational resource. Using high-performance network connections, it integrates high-performance computers, data resources, tools, and high-end experimental facilities in the US.	TeraGrid collaborates with EGEE on mutual interoperability towards seamless access between the infrastructures.

D4Science	The objective of this project is to consolidate and extend the e-Infrastructures built so far by the EGEE and DILIGENT projects in order to address the needs of scientific communities operating in Environmental Monitoring and Fisheries Resources Management areas. In particular, the project will provide such communities with facilities for creating Virtual Research Environments based on shared resources, including computational, storage, data, and service resources.	EGEE has already collaborated with the DILIGENT project in the context of FP6 for the set-up of a pre-production infrastructure based on EGEE pre-production service. With D4Science the already established collaboration will continue in FP7. D4Science will link and extend the EGEE production infrastructure and exploit gLite functionality in the context of virtual research environments, enabling repositories and services sharing in addition to computing and storage sharing of resources.
DORII	The DORII project aims to deploy e-Infrastructures for new scientific communities, relying on the integration of remote instruments in the infrastructure.	EGEE will collaborate with DORII to ensure DORII will be able to exploit the EGEE infrastructure for its work.
eIRG-Sp2	e-Infrastructures Reflection Group Support.	e-Infrastructures Reflection Group Support Programme2 – e-IRGSP2
EDGeS	EDGeS aims at bridging traditional Grid system (like EGEE) and desktop grids (like BOINC and XtremWeb).	Through collaborations with EDGeS the existing EGEE infrastructure is expected to extend to desktop infrastructures for best-effort usage.

e-NMR	The main objective is to optimise and extend the use of the NMR Research Infrastructures of EU-NMR.	EGEE will collaborate with e-NMR in particular through its life science cluster and through access to the EGEE infrastructure.
(BELIEF-II\	The BELIEF-II project will build on the achievements and momentum created by BELIEF [2005-2007], to coordinate the efficient and effective communication, results, networking and knowledge flow between EU eInfrastructure projects and their users, promoting their development and exploitation globally.	EGEE documents, results, articles will be uploaded onto the BELIEF-II Digital Library. Participation in the Review Panel will aid in articles showcasing results or latest developments that will be heard by a wide-audience covering the entire eInfrastructure ecosystem. EGEE will contribute towards a dissemination DVD produced by BELIEF-II as well as a common eInfrastructure brochure.
EUAsiaGRID	The project will pave the way towards an Asian e-Science Grid Infrastructure,	EGEE will collaborate with EUAsiaGrid to ensure Asian Grid efforts are will aligned with EGEE.