

## CONTENTS

EGEE User Forum	Page 1
CERN openlab connects to EGEE-II	2
Kimmo Koski and CSC	3
Polish firm offers Java-based EGEE API	4
Related Projects news	4
News in Brief and competition	7
Events and Training	8



Delegates at the opening session on the inaugural EGEE User Forum at CERN, Switzerland

## INAUGURAL EGEE USER FORUM ATTRACTS GLOBAL AUDIENCE

The beginning of March saw the first EGEE User Forum at CERN, Switzerland. This event brought together some 250 participants from the diverse user communities of the EGEE infrastructure to discuss their experiences, learn about new developments within the project and give feedback to the project staff. Spread over three days, the event featured a mix of plenary sessions as well as smaller more focussed discussions on a wide range of subjects.

Presentations by the larger EGEE activities were given in the plenary sessions, in particular by SA1 (operations) and by JRA1 (middleware). Probably the most important part of the User Forum was provided by parallel sessions where the users could discuss their experience and future plans with middleware and operation experts. Users representing 11 different application domains ranging from archaeology to astrophysics participated in the event. Thematic parallel session looked at issues common to all user communities such as VO management and data access.

Each day of the event ended with an interactive poster and demo session, allowing the delegates to view one another's work and discuss the experience of working on the Grid. The overall response

from the community was excellent, and the breadth of participation, from EGEE members and research scientists through to a large number of industrial delegates, highlighted the diverse but strong community that has formed over the course of the project.

The event also marked a milestone for the EGEE infrastructure, whose capacity now exceeds 20,000 CPUs spread across the 27 countries involved in the project. This is an important step in the ongoing increase of the infrastructure, which must be ready to support the LCG project in processing some 10 Petabytes per year from the forthcoming Large Hadron Collider at CERN when it comes online in 2007, in addition to supporting the several other rapidly growing user communities supported by EGEE.

The User Forum was the first of an annual series of events that, along with the EGEE conferences, help the project refine its work and be ever more responsive to user needs. The next major EGEE event will be the EGEE'06 conference, 25-29 September 2006, in Geneva, Switzerland, while the next User Forum will be held in spring 2007.

The full programme and all presentations are available online, together with videos of the plenary sessions. See <http://indico.cern.ch/conferenceTime>

Table.py?confId=286 for details. In addition, all 90 abstracts submitted to the event have been collated to provide a snapshot of the EGEE user community, and the resulting pdf is available at <http://indico.cern.ch/conferenceDisplay.py/abstractBook?confId=286>.

*Massimo Lamanna & Owen Appleton, EGEE*

## CERN OPENLAB CONNECTS TO EGEE-II

The CERN openlab for Datagrid applications was launched in January 2003 as a collaboration with leading IT firms to evaluate and integrate cutting-edge technologies focused on the needs of the LHC Computing Grid (LCG). Since 2003, CERN openlab has allowed CERN to work in collaboration with Enterasys, HP, IBM, Intel and Oracle on a Grid-enabled compute and storage farm called the CERN opencluster.

Important results have been produced via participation in LCG data challenges and service challenges, as well as individual demonstrations, tests and benchmarks. Delivery of results has also taken other forms, such as the porting and integration of the entire EGEE/LCG-2 middleware stack to the 64-bit Itanium platform. Furthermore, many requirement documents and functional assessment reports have been delivered to the partners. The initial openlab project has now come to a close, but a successor project, CERN openlab II, will build on the successes of the first phase with a range of new projects and relationships, notably a close connection with EGEE-II.

The years 2006-2008 correspond to the period of the full deployment of the LHC Computing Grid. Real data will start flowing from the LHC detectors from their start-up in late 2007 but service challenges will simulate the real load on the Grid right from the start. The need to understand and master the continuous technological evolution will continue to be just as important as during the current three-year period. A natural option in this context is to build upon the expertise and reputation established by the first phase of openlab.

Based on the openlab workshop "Industrialising the Grid", held in June 2005, a number of topics of interest to CERN, the EGEE project and the openlab



Sverre Jarp, openlab Chief Technology Officer, working on the opencluster

partners were defined. Two specific themes were singled out as being of particular interest to some of the current openlab partners. These were a Grid interoperability and integration centre (GIC) with close links to EGEE-II; and a platform competence centre (PCC) with the main focus on the PC-based computing hardware and the related software. These two themes will, of course, not exclude other activities being launched in the openlab framework.

Of particular interest to EGEE-II will be work on interoperability and testing through the GIC, encompassing tests of the EGEE stacks on test-beds provided by the partners. Within the PCC, openlab-II will work on platform virtualization, an interesting technology for expanding the range of hardware current Grid systems can run on. With the support of EGEE-II, the openlab will also continue its successful student programme, which brings a number of students from a range of Grid related fields to CERN each summer to work closely with the openlab team on a range of exciting projects.

During the first three years of its existence, the CERN openlab has demonstrated its ability to work successfully with key industrial partners on the test-

ing and validation of new technologies. As it enters its second phase, a formally defined relationship with EGEE-II will increase the impact of the openlab partnership beyond LHC computing to the wider domain of Grid-based scientific computing.

*Sverre Jarp, openlab Chief Technology Officer*

## KIMMO KOSKI AND CSC

CSC, the Finnish IT Centre for Science, develops and provides IT services for the Finnish research community. Already a partner in DEISA, the European supercomputing Grid project, CSC is a major player in Nordic science and will soon join EGEE-II. This month EGEE News spoke to Kimmo Koski, CSC's Managing Director, during a visit to the Project Office.

Kimmo Koski worked at CSC for much of the 1990s, before moving to Nokia as Global IT Manager at the Nokia Research Center, where he experienced the IT sector from a commercial point of view. "I'd been at CSC for several years and felt I'd seen it all, and then I was headhunted by Nokia. I tried to introduce the 'Grid' concept there, as I'd been working in Grids for some seven years under different names."

After this experience in industry, he returned to CSC in 2004 as Managing Director, finding it a quite different experience: "At CSC you have more pressure but more decision making power as well. If I have a great idea I can make sure there will be resources to proceed with it, though of course this means I can be blamed if it goes wrong."

CSC employs some 140 staff working in a number of roles to support 200 scientific applications from fields such as High Energy Physics, material and nano-science, biosciences, environmental science and even linguistics. "We are in a unique position, as CSC is the only major computing centre in Finland, and it is the site of not only the major scientific computing centre but also of the national research network, and in addition it has in-house scientific support staff. While I think a lot of the organisation, it's important to avoid becoming an ivory tower, and getting involved in European projects is part of that."

As a supercomputing centre, CSC has been a partner in DEISA, the Distributed European Infra-



Kimmo Koski, Managing Director of CSC, the Finnish IT Centre for Science

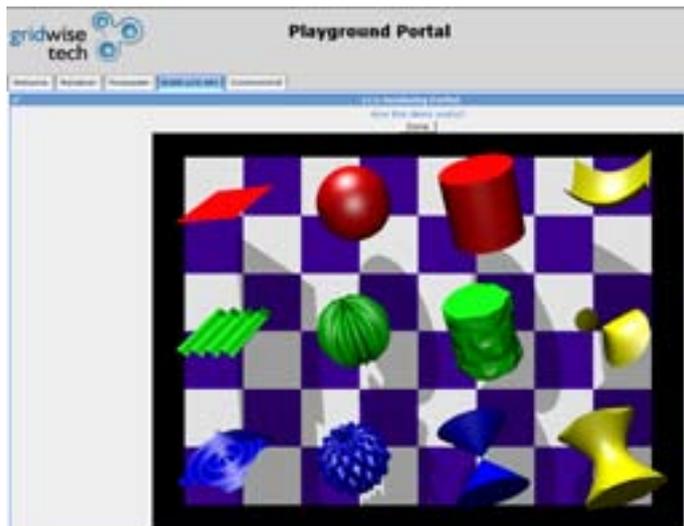
structure for Supercomputing Applications, for some time. The DEISA project operates a supercomputing Grid complementary to the efforts of EGEE, and the two projects already have a number of common partners and work closely together in a number of areas. CSC is also part of the European EMBRACE project, and four other projects approved in recent EU funding calls.

In EGEE-II, CSC will contribute to the operations and application activities (SA1 and NA4) but more generally hopes to contribute to the overall effort of promoting international research in its region and Europe as a whole. "I think with the Grid we spend too much time talking about technical issues. They are important but we also need to talk about the valuable side effects of the technical work. From our point of view it's not only the technological opportunities, as they take years to achieve. As valuable is the knowledge of collaboration; networking with our colleagues is key. In Finland we can't afford not to collaborate, and as scientific research becomes ever more international, collaboration will only become more key to the whole scientific community."

*Owen Appleton, EGEE*

## POLISH FIRM OFFERS DEMO OF JAVA-BASED EGEE API

The popularity of Grid computing has sparked new demands for customised solutions that are simple to access for end users. The demand for Grid portals to access thousands of computer servers spread around Europe initiated a new challenge in August



The Gridwise Tech portal using the EGEE infrastructure to render a three dimensional image in real time.

2005 for Polish consultancy firm GridwiseTech. GridwiseTech carried out thorough research in an attempt to find technologies filling the niche which existed in the market at the time. This resulted in choosing the best technologies and augmenting them with advanced features to provide a complete solution to its customers.

EGEE is the first Grid system deployed in the production environment on a worldwide scale. EGEE currently deploys the LCG-2 software distribution that originated from the LCG (LHC Computing Grid) project. The LCG-2 middleware was identified as the first Grid system deployed in the production environment on a worldwide scale, and GridwiseTech was attracted to both the LCG-2 middleware and its successor, the gLite distribution, as a potential solution to its customers' needs.

GridwiseTech has closely followed the development of these systems and is further developing its Java API for both the LCG-2 and gLite solutions. In this they have been cooperating with several academic institutions, two of them being Cyfronet and SZTAKI,

Poland. Cyfronet and SZTAKI are part of EGEE's Central European federation and the VOCE Virtual Organisation. VOCE has made resources available externally for work with GridwiseTech, and the resulting solution has been welcomed by its clients.

A live demo of this system is now available online at <http://gridwisetech.pl:8080/gridsphere/gridsphere> where users can experience the use of the EGEE Grid through a rendering demo, where an image is sent to the Grid in small pieces, rendered and returned as a single image. While this demo is made freely available, it was used in the development of a commercial solution for one of GridwiseTech's customers, and parties interested in the system should contact GridwiseTech for more information.

*GridwiseTech*

## RELATED PROJECT NEWS

### EGEE RELATED PROJECTS STAMP

EGEE supports a wide range of related projects, from infrastructure extensions to applications projects, all of which have close relationships with EGEE that benefit both parties. To allow such projects to identify themselves as being related to EGEE, the Project Office has produced a 'stamp' that can be added to websites or documents.

*Owen Appleton, EGEE*



The new EGEE Related Project stamp, for projects to highlight their link to EGEE in their online or printed material

## EELA: CREATING A HUMAN NETWORK BETWEEN EUROPE AND LATIN AMERICA

The EELA Project (E-Infrastructure shared between Europe and Latin America) will create a human network dedicated to work on Grids, e-Infrastructures, and e-Science through a group of skilled and highly motivated staff in Europe and Latin America.

EELA began on 1 January 2006 and was officially launched during the kick-off Meeting held at CIE-MAT in Madrid and Trujillo (Spain) from 30 January to 2 February 2006. The first two days of this meeting were dedicated to management set-up, technical meetings and presentations of the EuChinaGrid, EuMedGrid, SEEGRID and ICEAGE projects, as well as EGEE – considered as the incubator project for EELA.

Funded by the European Commission, the EELA project aims to build a digital bridge between the existing e-Infrastructure initiatives that are in process of consolidation in Europe (in the framework of the European EGEE Project), and those that are emerging in Latin America, through the creation of a collaborative network that will share an interoperable Grid infrastructure to support the development and testing of advanced applications.

In its collective effort, EELA will start up a common infrastructure in Latin America and Europe, interconnected by means of the RedCLARA and GÉANT networks, in which to implement certain applications of general interest: Biomedicine, High Energy Physics, e-Education and Climate. Because of the scope of its action, EELA will help to reduce the digital divide in the Latin-American region, making available to researchers a very powerful e-Infrastructure on which to make complex investigations in a simple way, and which can be extended in the future to serve as basis for a greater community of users. In addition, this effort will allow Latin America to enter into the Grid technology field an ordered form and as a coherent group. EELA is coordinated by CIE-MAT in Madrid, Spain, and includes partners from Spain, Italy, Portugal, Switzerland, Argentina, Brazil, Chile, Cuba, Mexico, Peru and Venezuela.

For more information see <http://www.eu-eela.org/>.

*Felix Barrio & Raquel Muñoz*  
EELA Project Office and Dissemination

## EUCHINAGRID: CREATING A “VIRTUAL GRID-BASED RESEARCH SPACE” BETWEEN EUROPE AND CHINA

The EUChinaGRID Project – Interconnection & Interoperability of Grids between Europe and China – is funded by the EU within the Sixth Framework Programme for Research and Technological Development (FP6), and began on 1 January 2006. The official kick-off meeting was held in Athens on 24-25 January 2006.

The project aims to create an interoperable Grid infrastructure between Europe and China, train new user communities, and support them in their process



The EUChinaGrid team enjoys the weather at their kick off meeting in Athens, Greece.

of adopting new powerful Grid tools and services for the benefit of e-Science. This will foster the creation of an integrated “virtual Grid-based research space” across Europe and China.

In the framework of the EUChinaGRID project, the importance of the interoperability issues will be stressed, for what concerns both network and Grid services layers. Regarding middleware services layers, EUChinaGRID aims to promote the integration between the major European and Chinese Grid environments (namely EGEE and CNGRID), pursuing common definition of standard procedures for testing and middleware certification and a definition of common requirements in order to enable the integration of the infrastructure management tools. Regarding the network layer, IPv4-IPv6 interoperability will be studied to support the full compatibility of deployed middleware with IPv6 services.

Such services are already implemented by Chinese partners at a production level and are bound to be exploited on a large scale in the next few years in Europe as well: the valuable Chinese experience on this subject will be thoroughly analysed and disseminated to European Partners, thus facilitating the protocol upgrade. This work will be of interest as Grids could also benefit from the introduction of IPv6 at a production level, thanks to a more efficient packet forwarding, which can improve parallel computing. The study of the IPv6 protocol in realistic conditions and its interaction with Grid infrastructures will support the global research community, permitting high performance use of these technologies and creating fruitful relationships and an effective collaboration between Europe and one of the most populous and rapidly growing countries of the world.

*Giada Di Giammarco*  
*EUChinaGRID Project Office and Dissemination*

#### EUMEDGRID: MEDITERRANEAN E-SCIENCE TAKES OFF FROM MALTA

With the successful kick-off meeting held in Malta on 6-7 February, the EUMEDGRID – “Empowering e-Science Across the Mediterranean” project has officially begun. This challenging initiative is aimed at implementing a Grid pilot infrastructure across the Mediterranean towards Global e-Science, but also towards promoting peaceful development throughout the Mediterranean basin.

Funded by the EU within the 6th Framework Programme and coordinated by EGEE partner INFN, the new-born project aims to support the development of EGEE-compliant Grid eInfrastructure in the Mediterranean Area and to promote the porting of new applications to the Grid, thus allowing Mediterranean scientists to collaborate closely with their European colleagues.

Conceived as the extension of EGEE in the region, EUMEDGRID will disseminate Grid awareness and competences across the Mediterranean and, while at the same time identifying new research groups to be involved in the project, helping them to exploit Grid’s enormous potential to improve their own applications.

The interest of the EUMEDGRID experience, however, is not restricted to scientific issues. Although the opportunity to port applications of regional importance – such as the hydro-geological and medical applications, on the pilot infrastructure is valuable, fostering Grid awareness and the growth of new competences among our neighbours’ scientific communities will be a concrete initiative towards



Participants at the EUMedGrid kick off meeting in Athens, Greece. Image courtesy of Charles Mifsud.

bridging the digital divide and, promoting a peaceful and effective collaboration among all partners.

At such a delicate moment for Mediterranean politics, this can easily become the most challenging aspect of the EUMEDGRID initiative. As Maltese Minister Louis Galea stated during his opening speech at the Malta meeting: “The diplomacy of education can be the best tool for the development of peace, security and growth in all the Euro-Med area. The traditional tool of diplomacy still remains an essential tool in foreign politics. However, working together by means of networking in education, research and technology is a more effective strategy to enhance the knowledge of different cultures and people would know how to better respect their dignity and identity.” And this first meeting, in which representatives from all the Mediterranean (including Algeria, Egypt, Jordan, Israel, Morocco, Palestine, Syria, Tunisia and Turkey) met together was an excellent starting point.

For further information see <http://www.eumedgrid.org>.

*Federica Tanlongo*  
*EUMEDGRID PO and Dissemination*

## NEWS IN BRIEF

### “EGO” NAME COMPETITION

Within the project and the wider European Grid community, plans are being made for the long term sustainability of the Grid. Many of these plans involve some sort of central body, often called the European Grid Organisation (EGO). This acronym is deemed unsuitable, so the PO is looking for suggestions for a new name, and the winner will receive a prize. Name proposals should be sent by 31 March to [anna.cook@cern.ch](mailto:anna.cook@cern.ch).

### EGEE INDUSTRY DAY

EGEE will host a special event for members of Industry on 27 April 2006 at LPNHE (Laboratoire de Physique Nucleaire et des Hautes Energies), located in the centre of Paris. The EGEE Industry Day will be a unique platform for Industry to interact directly with the EGEE project, the biggest Grid infrastructure in Europe, and will bring together decision makers, research heads, policy makers and CTOs to learn how industrial applications can be deployed on EGEE.

The event will highlight where Grid computing can create new industrial solutions and how organizations can benefit from sophisticated computing resources of the Grid, not available in traditional IT infrastructures. Interactive discussions will provide an opportunity to get an industry perspective and discover how to EGEE can work towards a commercial Grid. More information is available at <http://public.eu-egee.org/industry/industryday.html>.

### EGEE - EGEE-II TRANSITION MEETING

The project will hold a transition meeting to mark the move from EGEE to EGEE-II at CERN, Switzerland, on 12-13 April 2006. The meeting is open to all partners, though the first day in particular will serve to introduce new partners to the tools and procedures to be used during EGEE-II. The EGEE-II activity leaders will introduce their activities and present their major tasks for the coming year. Those wishing to attend should register, and also seek accommodation early to avoid problems. More information and registration is available at <http://egee-intranet.web.cern.ch/egee-intranet/Transition/index.htm>

### CORDIS WEBSITE MOVE

Cordis, the European Union web portal for Research and Development, is moving its website from the old address at <http://www.cordis.lu/> to a new address at <http://cordis.europa.eu.int>. At present both addresses work but shortly the old address will cease to function. The new site for the F3 (Research Infrastructures) unit, which funds EGEE, will be <http://cordis.europa.eu.int/ist/rn>.

### EGEE @ GGF16

Last month EGEE ran a stand at the 16th Global Grid Forum in Athens Greece, the first time EGEE has participated in GGF in this way. Both the event, which was hosted by EGEE partner GRNET, and the stand were judged successful by the many EGEE members present at the conference. The stand, staffed by NA2 partners from the South Eastern European Federation, featured the real-time monitoring system for the EGEE/LCG infrastructure produced by Imperial College, London (see <http://gridportal.hep.ph.ic.ac.uk/rtm>), as well as a broad range of technical and publicity material. EGEE also plans to have a stand at GGF17 in Japan, staffed by our Asian partners, and continuing the project's commitment to global standards for Grid computing through organisations such as the Global Grid Forum.



The EGEE stand at GGF16, in Athens, Greece. Picture courtesy of Hara Mpimpa.

## CERN OPENLAB STUDENT PROGRAMME CALLS FOR APPLICANTS

CERN openlab is CERN's industrial partnership with leading IT companies to test and validate cutting edge hardware and software for the Grid. As part of this activity, a student programme was initiated in 2003 which brings some 15 top students to CERN for two months each summer to work in teams on advanced Grid projects. Topics have included optimising Grid data distribution, monitoring the LCG service challenges, porting EGEE's gLite software to a 64-bit environment, developing and optimising an advanced cluster for the Grid as well as volunteer computing projects such as LHC@home.



openlab students and supervisors in the CERN Computer Centre.

To qualify for the CERN openlab student programme you should be studying for a Bachelor, Master or Ph.D. in Computing or Physics. All nationalities may apply, provided the home institute supports the application and is prepared to share costs. The successful candidates will spend two months at CERN during the period June-October of 2006. As well as the project work, the students receive training in all aspects of Grids from LCG, EGEE and CERN openlab staff and take part in study tours to regional IT centres of interest.

Check [www.cern.ch/openlab](http://www.cern.ch/openlab) for more details. Candidates should send a CV and letter of support from a supervisor to [Francois.Grey@cern.ch](mailto:Francois.Grey@cern.ch). Closing date for applications is 31 March 2006.

## EVENTS & TRAINING

### EGEE TRAINING PROGRAMME

The International Summer School on Grid Computing is one of many training events that the EGEE training team help deliver. The EGEE training team currently offer a highly developed and wide ranging training programme. Over the last two years, as part of the EGEE Project, the training team have run more than 250 events with 2500 attendees in locations all over the world and in the next phase of the project (EGEE-II) the team will continue to deliver a programme of training and services.

For information on courses and training material or to register for any events go to: <http://egee.nesc.ac.uk/> where there is also an option to enter information about related events you may be running yourself.

### FORTHCOMING EVENTS

20-21 March, 2006

e-Infrastructure Roadshow event: MIMAS, Manchester, United Kingdom

<http://homepages.nesc.ac.uk/~mjm/training/roadshow.html>

28 March 2006

e-Infrastructure Roadshow event: University of Leeds, United Kingdom

<http://homepages.nesc.ac.uk/~mjm/training/roadshow.html>

12-13 April, 2006

EGEE/EGEE-II Transition meeting

<http://egee-intranet.web.cern.ch/egee-intranet/Transition/index.htm>

27 April 2006, Paris, France

EGEE Industry Day

<http://public.eu-egee.org/industry/industryday.html>

10-12 May 2006, Tokyo, Japan

GGF17

[http://www.ggf.org/GGF17/ggf\\_events\\_ggf17.htm](http://www.ggf.org/GGF17/ggf_events_ggf17.htm)

19-21 September, Brussels, Belgium

European Grid Technology Days

[http://www.cordis.lu/ist/grids/agenda\\_15\\_09\\_04.htm](http://www.cordis.lu/ist/grids/agenda_15_09_04.htm)

21-23 September 2006  
Austrian Grid Symposium, Innsbruck, Austria  
<http://www.austriangrid.at/austriangrid/>

25-29 September 2006, Geneva, Switzerland  
EGEE'06 conference  
<http://egee-intranet.web.cern.ch/egee-intranet/conferences/EGEE06/index.html>

22-24 November 2006, Baden-Baden, Germany  
German e-Science Conference  
[www.ges2006.de](http://www.ges2006.de)

### CALLS FOR PAPERS AND PARTICIPATION

19 April 2006, e-Science Institute, Edinburgh, UK  
Calls for themes and workshops for the e-Science Institute  
[http://www.nesc.ac.uk/news/articles\\_and\\_calls/Call-for-Themes-March-06.pdf](http://www.nesc.ac.uk/news/articles_and_calls/Call-for-Themes-March-06.pdf) and [http://www.nesc.ac.uk/news/articles\\_and\\_calls/Call-for-Responsive-March-06.pdf](http://www.nesc.ac.uk/news/articles_and_calls/Call-for-Responsive-March-06.pdf)

19 June 2006, Paris, France  
EGEE Workshop on Rights Management in Production Grids HPDC 15  
<http://cern.ch/egee-intranet/HPDC-Workshop/>

13-15 September 2006, Munich, Germany  
HPCC-06  
<http://hpcc06.lrr.in.tum.de/>

21-23 September 2006, Innsbruck, Austria  
6th Austrian-Hungarian Workshop on Distributed and Parallel Systems  
<http://www.lpds.sztaki.hu/dapsys>

4-6 December 2006, Amsterdam, The Netherlands  
Second IEEE International Conference on e-Science  
<http://www.escience-meeting.org/eScience2006>

### FORTHCOMING TRAINING EVENTS

23 March 2006 London, UK  
Virtualization and Grid  
[www.gridcomputingnow.org](http://www.gridcomputingnow.org)

24 March 2006 Manchester, UK  
Virtualization and Grid  
[www.gridcomputingnow.org](http://www.gridcomputingnow.org)

9-21 July 2006, Ischia, Near Naples, Italy  
Fourth International Summer School on Grid Computing,  
<http://www.dma.unina.it/~murli/ISSGC06/>

11-15 September 2006, Karlsruhe, Germany  
GridKa School 2006-03-20  
<http://iwrwww1.fzk.de/gks06/>

### FURTHER EDUCATION

MSc. in e-Science, University of Edinburgh  
This course will begin at the start of the next academic year. For further details, see [http://www.ph.ed.ac.uk/postgraduate/degrees/msc\\_escience.html](http://www.ph.ed.ac.uk/postgraduate/degrees/msc_escience.html)

### TRAINING MATERIAL

A great deal of training material can be found in the NA3 Training Material Archive at:  
<http://www.egee.nesc.ac.uk/trgmat/index.html> .  
Current course material is available in:

- EGEE Induction
- LCG2 APIs
- Web Services
- UML for developing web services
- Globus Toolkit
- LCG2 Install and Admin
- gLite

As the EGEE project is ending and EGEE-II is starting, we will be contacting recipients of the newsletter shortly to confirm their interest and to better understand our audience.

You are receiving this newsletter as you have expressed an interest in the EGEE project. If you have any questions, comments or suggestions for the next issue, please feel free to contact [owen.appleton@cern.ch](mailto:owen.appleton@cern.ch) .