



Enabling Grids for E-science

# Introduction

*EGEE/EGEE-II transition meeting – day 2*

*Bob Jones, EGEE-II Project Director*

*CERN*

*Bob.Jones@cern.ch*

[www.eu-egee.org](http://www.eu-egee.org)



| Thursday 13 April 2006 |                                       |                                   |
|------------------------|---------------------------------------|-----------------------------------|
| 9:00                   | Thursday morning                      |                                   |
| 9:00                   | EGEE Programme of Work                | Bob Jones                         |
| 9:30                   | Technical Overview                    | Erwin Laure                       |
| 10:00                  | SA1 – Grid operations                 | Ian Bird                          |
| 10:30                  | Coffee Break in 600-R-017             |                                   |
| 11:00                  | SA2 – Network provisioning            | Mathieu Goutelle                  |
| 11:15                  | SA3 – Middleware integration          | Markus Schultz                    |
| 11:45                  | JRA1 – Middleware re-engineering      | Claudio Grandi                    |
| 12:15                  | Lunch                                 |                                   |
| 14:00                  | Thursday afternoon                    |                                   |
| 14:00                  | NA3 - Training                        | Malcolm Atkinson/ David Fergusson |
| 14:15                  | NA4 – Application support             | Cal Loomis                        |
| 15:00                  | NA2 – Dissemination & outreach        | Hannelore Hämmerle                |
| 15:15                  | Coffee Break in 600-R-017             |                                   |
| 15:45                  | JRA2 - Quality Assurance and Security | Gabriel Zaquine                   |
| 16:10                  | NA5 – Policy and cooperation          | Fotis Karayannis                  |
| 16:30                  | Related Projects                      | Dieter Kranzmueller               |
| 17:00                  | Discussions                           |                                   |

- **EGEE**

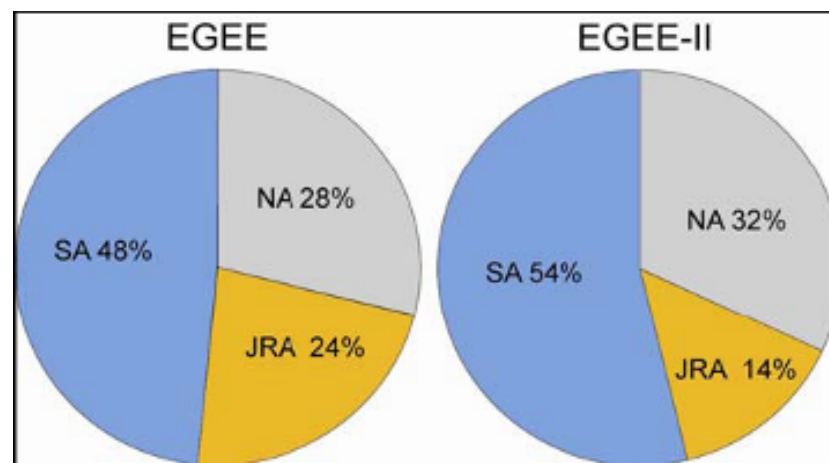
- 1 April 2004 – 31 March 2006
- 71 partners in 27 countries, federated in regional Grids

- **EGEE-II**

- 1 April 2006 – 31 March 2008
- 91 partners in 32 countries
- 13 Federations

- **Objectives**

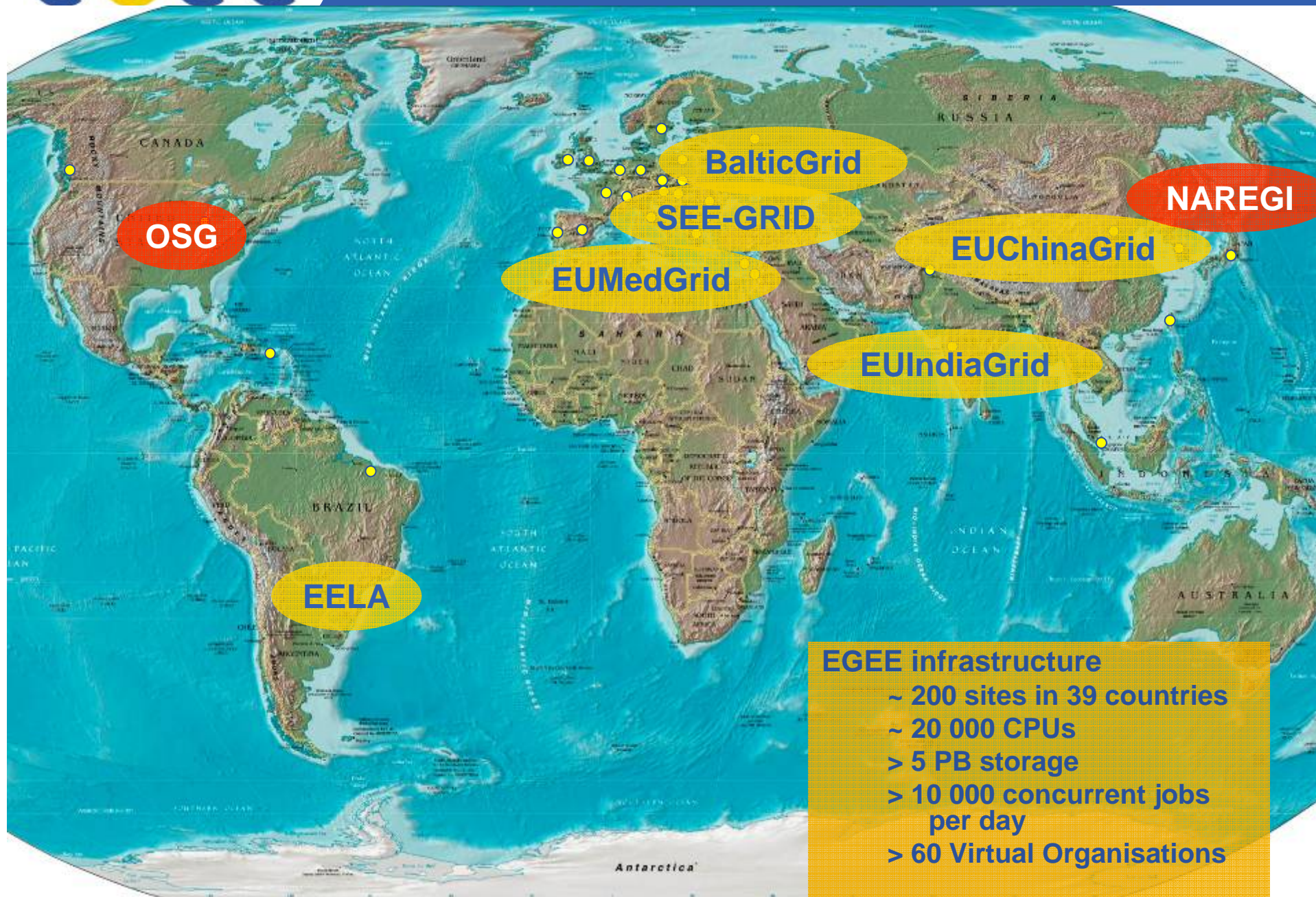
- Large-scale, production-quality infrastructure for e-Science
- Attracting new resources and users from industry as well as science
- Improving and maintaining “gLite” Grid middleware



- **Infrastructure**
  - Manage and operate production Grid for European Research Area
  - Interoperate with e-Infrastructure projects around the globe
  - Contribute to Grid standardisation efforts
  
- **Support applications from diverse communities**
  - Astrophysics
  - Computational Chemistry
  - Earth Sciences
  - Finance
  - Fusion
  - Geophysics
  - High Energy Physics
  - Life Sciences
  - Multimedia
  - ...
  
- **Business**
  - Forge links with the full spectrum of interested business partners
  
- + **Disseminate knowledge about the Grid through training**
- + **Prepare for sustainable European Grid Infrastructure**



# eGEE A global, federated e-Infrastructure



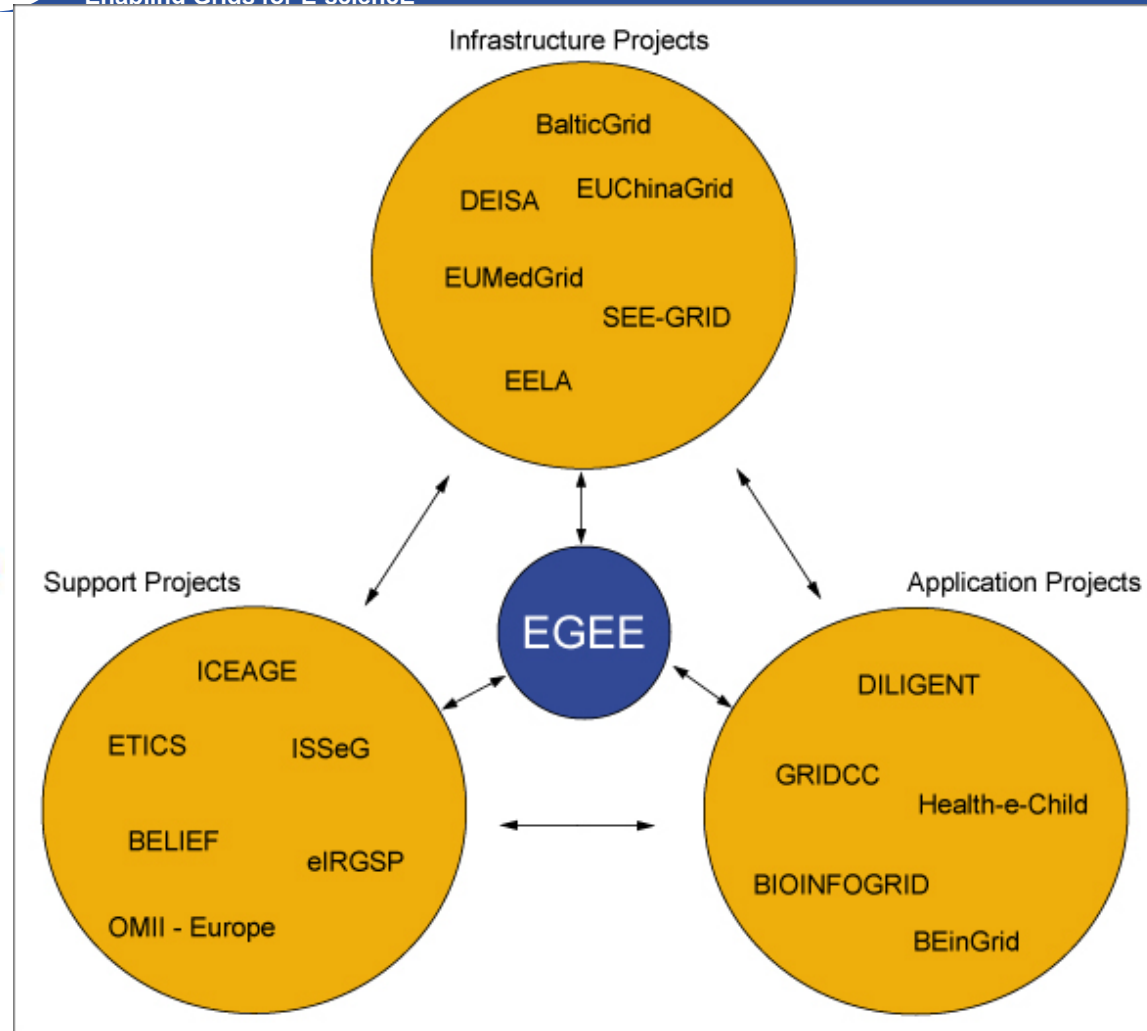
**EGEE infrastructure**

- ~ 200 sites in 39 countries
- ~ 20 000 CPUs
- > 5 PB storage
- > 10 000 concurrent jobs per day
- > 60 Virtual Organisations

- **Infrastructure operation**
  - Currently includes >200 sites across 39 countries
  - Continuous monitoring of grid services in a distributed global infrastructure
  - Automated site configuration/management
  
- **Middleware**
  - Production quality middleware distributed under business friendly open source licence
  
- **User Support - *Managed process from first contact through to production usage***
  - Training
  - Documentation
  - Expertise in grid-enabling applications
  - Online helpdesk
  - Networking events (User Forum, Conferences etc.)
  
- **Future**
  - Expand on interoperability with related infrastructures



|                                 |                                    |
|---------------------------------|------------------------------------|
| <b>CSC, Finland</b>             | <b>Imperial College, U.K.</b>      |
| <b>ETHZ, Switzerland</b>        | <b>Switch, Switzerland</b>         |
| <b>ULB, Belgium</b>             | <b>CIEMAT, Spain</b>               |
| <b>TID, Spain</b>               | <b>IPB, Serbia and Montenegro</b>  |
| <b>TUBITAK, Turkey</b>          | <b>FZJ, Germany</b>                |
| <b>UCM, Spain</b>               | <b>UNIZAR, Spain</b>               |
| <b>CNR, Italy</b>               | <b>ELETTRA, Italy</b>              |
| <b>Healthgrid, France</b>       | <b>Metaware, Italy</b>             |
| <b>CNES, France</b>             | <b>RUG, The Netherlands</b>        |
| <b>Glasgow University, U.K.</b> | <b>Manchester University, U.K.</b> |
| <b>CKSC, Korea</b>              | <b>KISTI, Korea</b>                |
| <b>ASGC, Taiwan</b>             | <b>SRCE, Croatia</b>               |
| <b>RENCI, U.S.A</b>             | <b>Oxford University, U.K.</b>     |





- **Industry Task Force**

- Group of industry partners in the project
- Links related industry projects (NESSI, BEinGRID, ...)
- Works with EGEE's Technical Coordination Group



- **Collaboration with CERN openlab project**

- IT industry partnerships for hardware and software development



- **EGEE Business Associates (EBA)**

- Companies sponsoring work on joint-interest subjects
  - Technical developments & Transfer of know-how and services to industry
  - Business modelling
  - Exploitation strategies & Market Surveys

- **Industry Forum**

- Led by Industry to improve Grid take-up in Industry
- Organises industry events and disseminates grid information
  - Next event: Paris 27<sup>th</sup> April  
<http://www.eu-egee.org/events/industryday/first-egee-industry-day/>
  - Further events across Europe are being planned



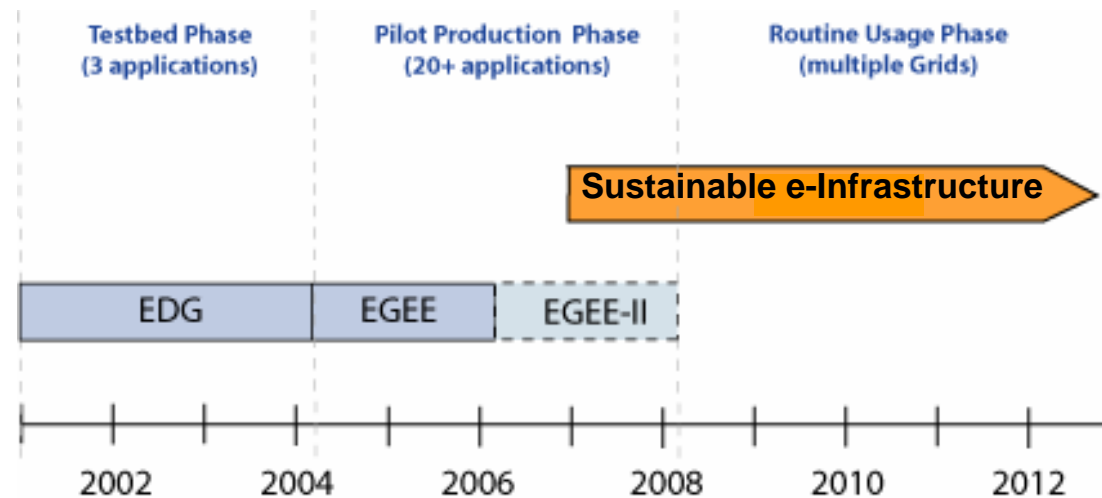


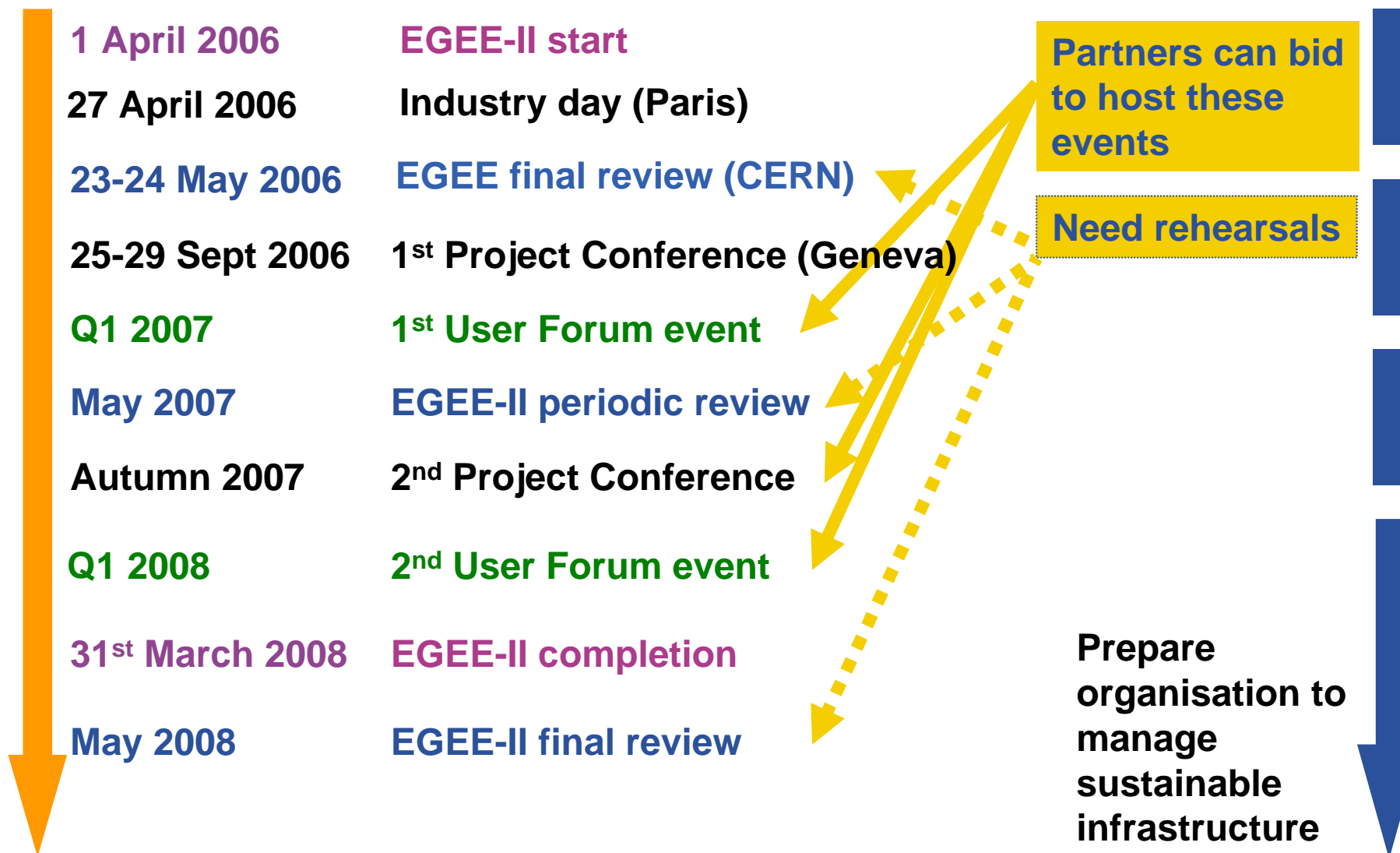
Enabling Grids for E-science

# Project Execution Board (PEB)

|      |  |   |
|------|--|---|
| NA1  | Project Director<br>Deputy<br>Technical Director<br>Secretary  | R. Jones<br>D. Kranzmueller<br>E. Laure<br>K. Gunne |
| NA2  | Dissemination, Outreach and Communication Manager<br>Alternate | H. Hammerle<br>O. Appleton                          |
| NA3  | Training & Induction Manager                                   | TBC   |
| NA4  | Applications, Identification & Support Manager<br>Alternate    | C.Loomis  |
| NA5  | Policy and International Cooperation Manager                   | TBC   |
| SA1  | Grid Operations, Support and Management Manager<br>Alternate   | I. Bird<br>M. Barroso-Lopez                         |
| SA2  | Networking Support Manager<br>Alternate                        | M. Goutelle<br>J.P Gautier                          |
| SA3  | Integration, Testing and Certification<br>Alternate            | M. Schulz<br>L. Field                               |
| JRA1 | Middleware Re-engineering Manager<br>Alternate                 | C. Grandi<br>J. White                               |
| JRA2 | Quality Assurance Manager<br>Security Manager<br>Alternate     | G. Zaquine<br>A. Edlund<br>D. Kelsey                |

- **Need to prepare for permanent Grid infrastructure**
  - Maintain Europe’s leading position in global science Grids
  - Ensure a reliable and adaptive support for all sciences
  - Independent of project funding cycles
  - Modelled on success of GÉANT
    - Infrastructure managed in collaboration with national grid initiatives





- **EGEE'06 – Capitalising on e-infrastructures**
  - Demos
  - Related Projects
  - Industry
  - International community

- **25-29 September 2006**

- **Geneva, Switzerland**

- **Registration will start by the end of April!**

<http://www.cern.ch/egee-intranet/conferences/EGEE06>

Welcome to the key European Grid event of 2006!

- **EGEE Infrastructure – world’s largest multi-science production grid service**
- **EGEE-II is the opportunity to expand on this existing base both in terms of scale and usage**
- **Use this transition meeting as the occasion to meet your fellow partners and clarify any grey areas in the programme of work**
- **Need to prepare the long-term**
  - EGEE, related projects, national grid initiatives and user communities are working to define a model for a sustainable grid infrastructure that is independent of project cycles