



Grid for Pharmaceutical & Biomedical Challenges

Venue: Hotel SOREA, Kráľovské údolie 6, Bratislava, Slovakia

Host: Institute of Informatics, Slovak Academy of Sciences,

Dúbravská cesta 9, Bratislava



Participation is free of charge

Registration:

<http://www.eu-egee.org/bratislavaday>



Grid Adoption in the Pharmaceutical Industry & Healthcare Sector

A recently published 451 GARS (Grid Adoption Research Service) has highlighted the increasing interest in Grids in the pharmaceutical industry and healthcare sector. The EGEE-II Industry Day will expertly demonstrate the benefits of Grid both for pharma and biotech firms. Additionally attendants will come away with a better understanding of why hospitals are seen to be natural adopters of Grid technology due to their need to share data & tackle specific challenges around storage & medical images. Ultimately, the Grid will provide the backbone for electronic health records and new medical infrastructures.

Biomedicine & EGEE-II

Biomedicine is one of the major users of the EGEE infrastructure in three distinct areas: **Medical Imaging**, especially the compute-intensive area of image co-registration. This enables techniques such as 'virtual biopsies' for cancer diagnosis avoiding invasive surgical procedures, improving quality-of-life for patients and helping reduce the cost of medical treatment. **Bio-informatics**: applications ranging from removing aberrations from microscope images to portals enabling users in areas like protein sequence analysis, as well as complex workflows to streamline processing & management of biological data. **Drug Discovery**: using the EGEE Grid infrastructure to accelerate the search for candidate drug molecules against neglected diseases.

EGEE-II & The WISDOM Success Story

EGEE-II's Drug Discovery Initiative, WISDOM (Wide *In-Silico* Docking on Malaria) has been cited by the 451 GARS Report as a successful early adopter of Grid. WISDOM has been successfully deployed against diseases like malaria and avian flu, testing millions of potential drugs in a short period of time. Virtual Screening Challenges have demonstrated its impact beyond malaria, indicating how the method developed can be extended to all diseases, reduce the high costs of drug development, opening up exciting industrial perspectives. At the Industry Day, attendants can visit the WISDOM Booth and see the **WISDOM Live Demo** showing how it works.

Benefits & Takeaways

- A better understanding of the current and future adoption of Grid in this sector, like accelerating time to bring products to market, taking on more workloads by increasing computing power.
- Learning how Grid technology offers the tools not only for collecting and sharing information but also for mobilising resources either routinely or in an emergency for vaccine and drug discovery.
- Key knowledge on EGEE developments in Bio-informatics & how its Grid infrastructure can enable organisations operating in this sector.
- Important insight into EGEE's next generation middleware, gLite, which is distributed under a business-friendly open source licence and compliant with emerging Grid standards.

Sponsors



Support Partners



Ministry of Health, Slovak Republic
Minister: Ivan Valentovič

Last Update: 10/08/2007

Agenda

- Chair:** Robert Harakaly, IF Steering Committee,
Focus Group Leader: Support for the Commercial Adoption of EGEE's gLite
- 08.30-9.00 Registration**
- 09.00-09.10 Welcome & Introduction to EGEE-II's Programme for Industry**
Ladislav Hluchý, II SAS, Slovak Republic
- 09.10-10.00 Powering the Grid - EGEE's gLite Middleware**
Luděk Matyska, Masaryk University, Czech Republic
- 10.00-10.30 Current EGEE Developments in Bio-Informatics**
Christophe Blanchet, CNRS, Lyon, France
- 10.30-11.00 Morning Coffee & Networking**
- 11.00-11.30 EGEE's Drug Discovery Initiative, WISDOM-II: A Success Story**
Yannick Legré, CNRS, France
- 11.30-12.00 Health-e-Child: gLite Adoption Case Study**
David Manset, Maat-g, Spain
- 12.00-12.30 Medical Imaging Production & Services on the EGEE Grid**
Johan Montagnat, CNRS, France
- 12.30-13.30 Lunch and Networking**
- 13.00-13.45 Slovak e-Health National Strategy**
Juraj Karovič, Director of Informatics, Ministry of Health, Slovak Republic
- 13.45-14.30 Electronic Health Record: Data Logging & Utilisation**
Mikuláš Popper, National Health Information Centre, Slovak Republic
- 14.30-15.00 ViroLab Virtual Laboratory for Infectious Diseases: Case Study**
Marian Bubak, CYFRONET AGH Uni Krakow, Poland
- 15.00-15.30 Afternoon Coffee & Networking**
- 15.30-15.50 Interactive Grid Access for Ultra-Sound Computer Tomography (USCT)**
Marcus Hardt, Forschungszentrum Karlsruhe, Germany
- 15.50-16.10 CT Brain Perfusion Studies in int.eu.grid: Case Study**
David Rodriguez, IFCA (Instituto de Fisica de Cantabria) - CSIC, Spain
- 16.10-16.40 Management of Data, Information & Knowledge in Medicine & Health Services**
Viera Rusnáková, Slovak Medical University, Slovak Republic
- 16.40-16.55 Clusters, Grids & Molecules: Virtual Screening**
Tibor Kožár, Institute of Experimental Physics SAS, Slovak Republic
- 16.55-17.15 National Transplant Database: Organ & Tissue Matching & Allocation System A UK Case Study**
Roman Benedek, Artman Technologies, Slovak Republic & UK
- 17.15-17.35 Interactive Discussion**
Convenor: Ladislav Hluchý
- 17.35-17.45 Wrap-Up**