



Enabling Grids for E-science

EGEE and Business – Moving into the Future

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*gLite in a Commercial Setting Workshop
EGEE 4th User Forum / OGF25
5 March 2009- Catania, Italy*

www.eu-egee.org





Business Partners

– Funded

Business Associates

– Collaborative

Business Forum & Task Force

– Outreach
– Business Applications

Business Days and Tracks

– Events



- **Outreach**

- 15 Business Events organised
 - 12 Focused Business Days
 - 3 Business Tracks at Conferences
- 300 Business Forum Members
- 4 Business Forum Newsletters
- 2 One-to-one site visits with SMEs

- **Technology Transfer**

- 8 Business Associates
 - Collaborative Developments
- 12 Business Applications
 - Adopted gLite on their own infrastructure
 - Undertaken: Proof of Concept; Application and Development

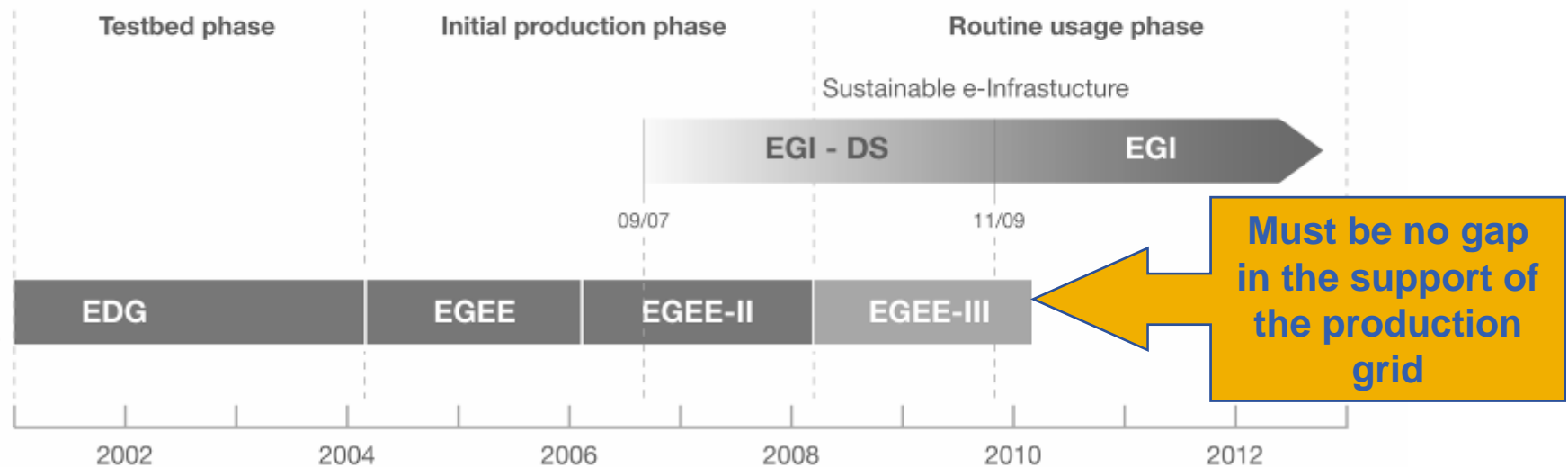


- **Middleware tested in large scale - gLite**
 - Range of higher-level services (Workload, Data Mgt, ...)
 - Proven foundation Grid Middleware
 - CE (Computer Element), SE (Storage Element)
 - Security model with authentication, authorisation and audit trails
 - Information system, Monitoring, Accounting
 - API to both higher-level services and foundation Grid Middleware
- **Follows SOA- making easy to connect software with other Grid services**
 - Compliance with Web Service Interoperability
- **Business friendly open source Apache-2 license**
- **Credible**
 - Supporting applications from a wide range of domains
 - Mission-critical for the LHC. Increasingly for other domains
 - Interoperable with other grids, increasingly through open standards
 - Available expertise, support and user- and operator-level guides
 - Long-terms plans means it will still be here in the future



What happens next?

- Need to prepare permanent, common **Grid infrastructure**
- Ensure the long-term sustainability of the European e-Infrastructure independent of short project funding cycles
- Coordinate the integration and interaction between National Grid Infrastructures (NGIs)
- Operate the production Grid infrastructure on a European level for a wide range of user communities



**Drive work through Applications
needing to use Grids *and* Clouds**

- **Clouds and Grids**

- Investigate areas of common interest
 - Virtualization technology and its use
 - Extend Grid resources with Cloud resources
 - Extend the Grid abstractions to implement Cloud services
 - *job/computing management, data management*
 - Implement Cloud services on top of the EGEE infrastructure
 - Integrate Cloud services into EGEE by using the GLUE schema

- **Evolution of EGEE and gLite**

- Structure current information towards definitions and future actions
- Migrate business activities to future model

- Evaluate the current adoption status of gLite in a business context
- Analyze gLite's strengths and weaknesses leading to a SWOT analysis
- Understand current market offerings and cost comparison
- Understand gLite business models
- Identify specific areas to be addressed in final year
- Create a dialogue with EGI for industrial aspects
- Identify future potential commercial exploitation
- Rapporteur the main points raised

Build the EGEE Commercial Exploitation Plan



- **EGEE and gLite**

- Can we run business applications on top of the infrastructure
 - How to handle network restrictions?
- What happens to business applications after proof of concept phase?
- How could components be broken down and packaged offering a specific set of services as a business solution?
- How will EGEE business activities evolve/migrate at project end (EGI?)

- **Clouds**

- Grids and Clouds are compatible infrastructures
 - Who to target for interoperability collaboration?
- Data access and interoperability
 - To be solved at application domain level?
- Security? - for sensitive applications
- Reliability? - for critical applications
- Performance management – Cost
 - comparison between own infrastructure and grid, comparison between own infrastructure and cloud, comparison between grid and cloud
- Grid over clouds? Cloud over Grids? (costs/benefits) & **Does it matter?**