

# Grid Middleware



**Bob Jones**  
**EGEE Technical Director**



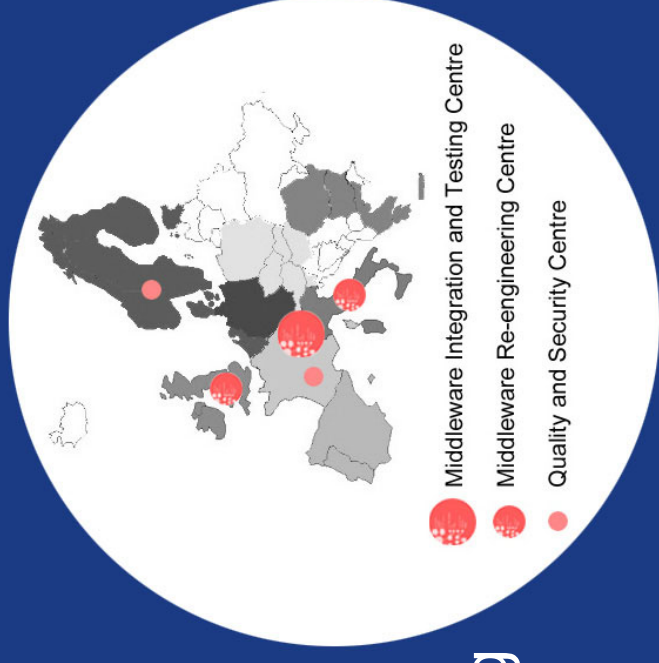
Enabling Grids for  
E-science in Europe

**DTI International Technology Service-GlobalWatch Mission**

**CERN – June 2004**

# EGEE Middleware Activity

- Activity concentrated in few major centers
- Middleware selection based on requirements of Applications and Operations
- Harden and re-engineer existing middleware functionality, leveraging the experience of partners
- Provide robust, supportable components
- Track standards evolution (**WS-RF**)



# Middleware Implementation

From day 1 (1<sup>st</sup> April 2004)

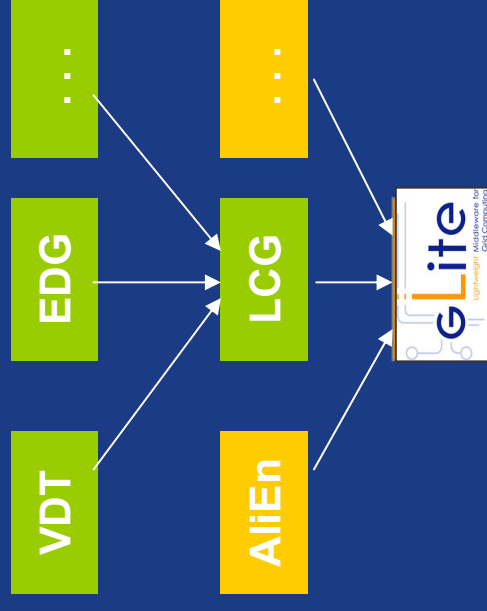
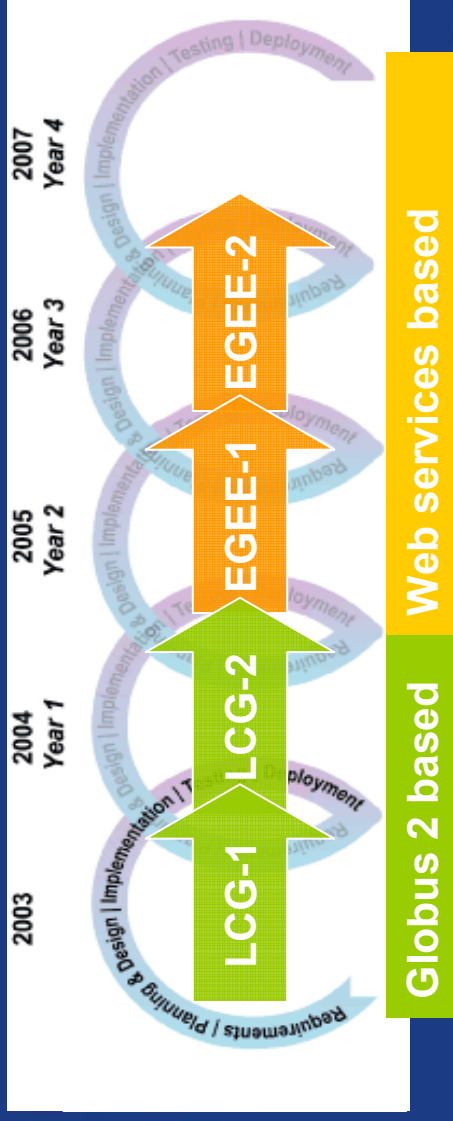
Production grid service based on the LCG infrastructure running LCG-2 grid mware

In parallel develop a “*next generation*” grid facility

Produce a new set of grid services according to evolving standards (web services)

Run a pre-production service providing early access for evaluation purposes

Will replace LCG-2 on production facility in 2005



# EGEE Middleware: gLite

Starts with components from AliEn, EDG, VDT etc.

Aim at addressing advanced requirements from applications

Prototyping short development cycles for fast user feedback

Initial web-services based prototype being tested internally with representatives from the application groups



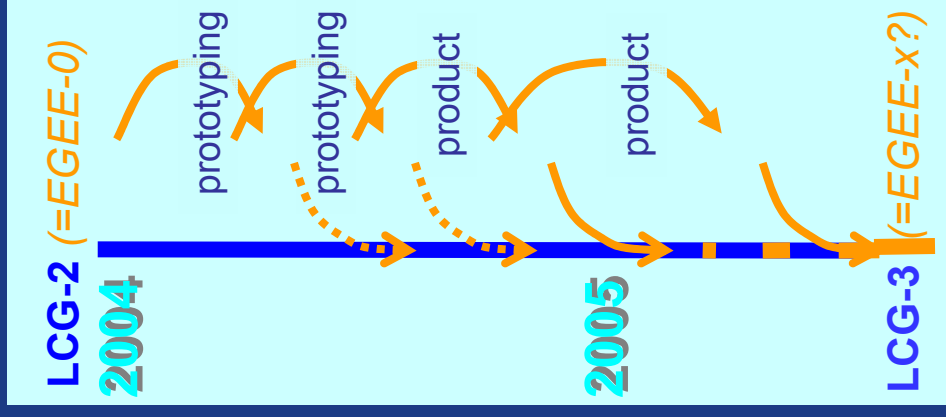
# Intellectual Property

- The existing EGEE grid middleware (LCG-2) is distributed under an Open Source License developed by EU DataGrid
  - No restriction on usage (scientific or commercial) beyond acknowledgement
  - Same approach for new middleware
- Application software maintains its own licensing scheme
  - Sites must obtain appropriate licenses before installation



# EGEE Middleware Implementation

- LCG-2
  - Current base for *production* services
  - Evolved with certified new or improved services from the preproduction
- Pre-production Service
  - Early application access for new developments
  - Certification of selected components from gLite
  - Starts with LCG-2
- Migrate new mware in 2005
  - Organising smooth/gradual transition from LCG-2 to GLite for production operations



## 42 deliverables in 1<sup>st</sup> year

# EGEE Plans for the coming year

- **July**  
New middleware architecture and common application interface  
Detailed Operations, Training and Dissemination plans
- **September**  
First non-HEP applications running on LCG-2 production service  
Security architecture/ Grid services design for new mware  
Deployment of 2<sup>nd</sup> GLite prototype
- **November**  
2<sup>nd</sup> EGEE conference (Den Hague) in common with **DEISA, SEE-GRID, DILIGENT**  
etc.
- **December**  
Application migration reports
- **February 2005**  
1<sup>st</sup> EU review
- **March 2005**  
Large-scale deployment of GLite software  
Annual report



Enabling Grids for  
E-science in Europe