



Enabling Grids for E-science

# Production Demonstrations: Introduction

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*EGEE 1<sup>st</sup> EU Review*

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



## Part 1

- **Grid Production Service Operations**
  - What does it mean to operate a Production Grid of more than 100 sites

## Part 2

- **Demonstration of 3 real Grid applications from different disciplines**

- **A taste in the life of a Grid operator**
- **Hélène Cordier (IN2P3)**
- **Piotr Nyczyk (CERN)**
- **Fundamental Processes for**
  - Monitoring
  - Troubleshooting
  - Resolution
  - Knowledge gathering

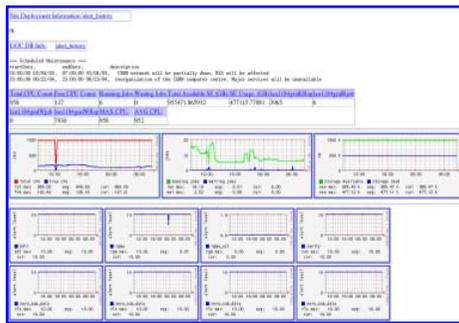


# Grid Production Serv. Ops Highlights

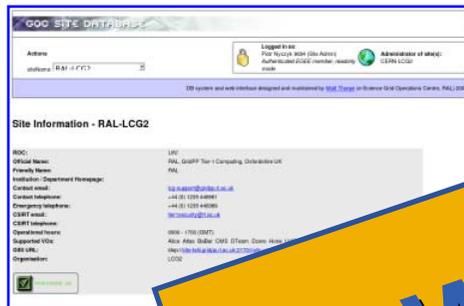
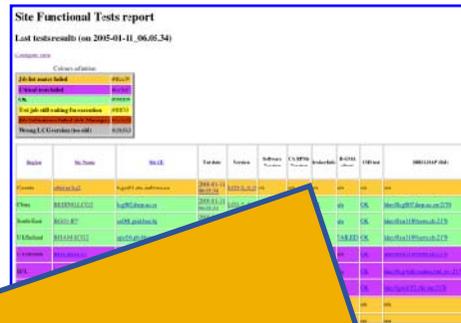
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GIIS Monitor



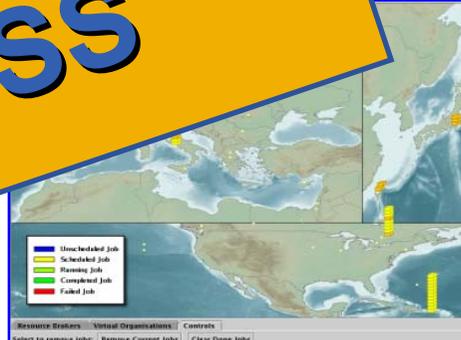
GIIS Monitor graphs



G



Scheduled Downtimes



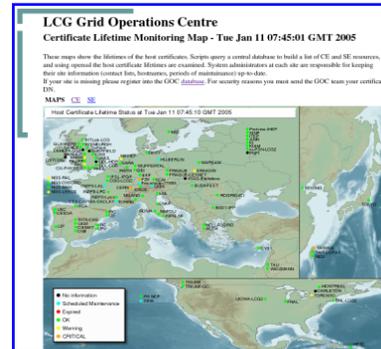
Live Job Monitor



Gridce - VO view



Gridce - fabric view



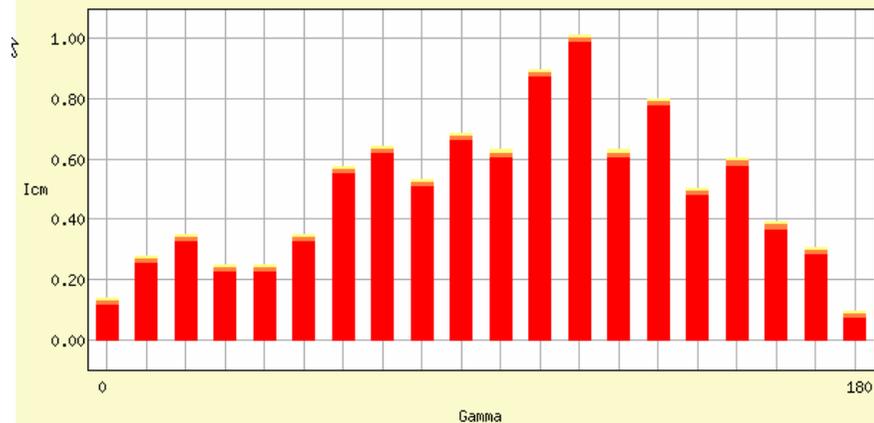
Certificate Lifetime Monitor

WITH A PROCESS

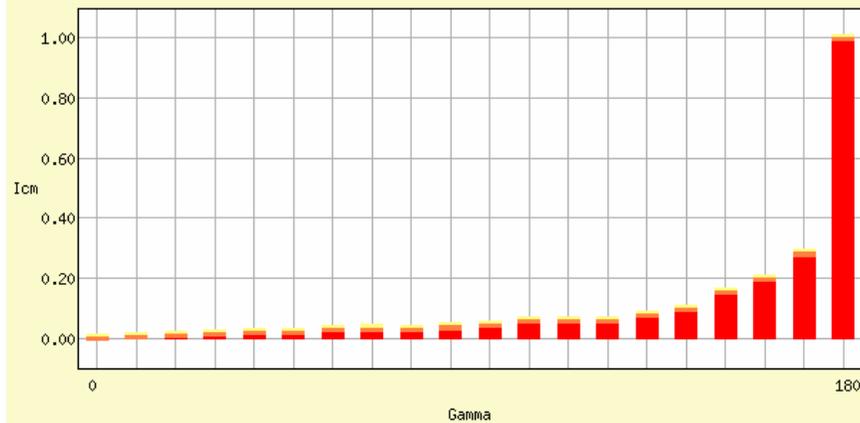
- **GEMS**
  - Antonio Laganà and Osvaldo Gervasi
  - University of Perugia
  - Molecular Simulator (Computational Chemistry)
- **EGEODE**
  - Dominique Thomas and Gaël Youinou
  - Compagnie Générale de Géophysique
  - Geophysics Application (Earth Science)
- **gPTM3D**
  - Cecile Germain-Renaud and Romain Texier
  - CNRS / LRI
  - Radiology Images Analysis (Biomedical / Medical Imaging)

- **9 Applications from many domains (HEP, Biomed and other) were demonstrated in Den Haag**
- **3 were selected Application Demonstrations selected based on following main criterion**
  - Scientific importance
  - Is the added value of the grid obvious?
  - Visual impact
  - Maturity
  - Demonstrability

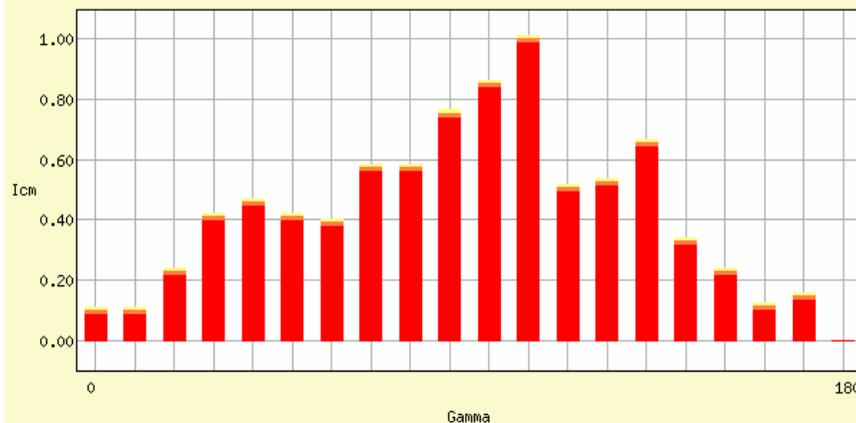
Angular distribution:  $H+ICl \rightarrow Cl+HI$



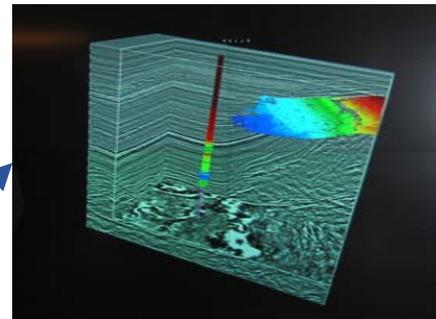
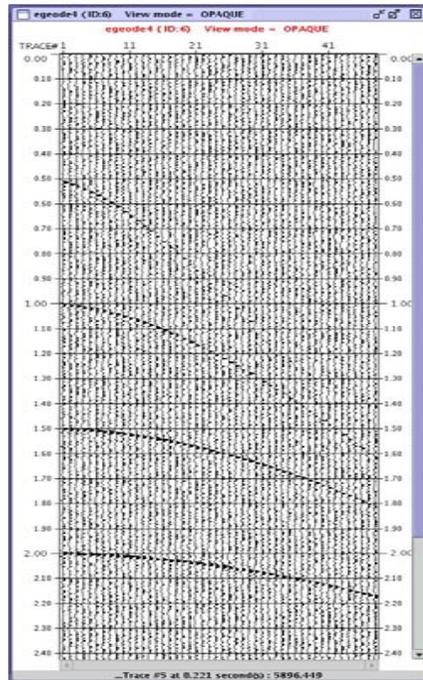
Angular distribution:  $H + ICl \rightarrow H + ICl$



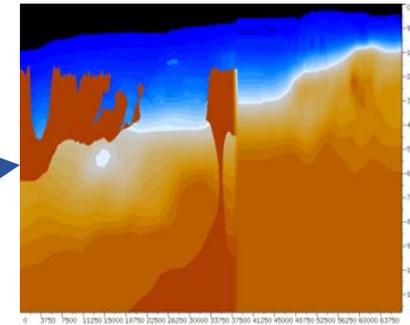
Angular distribution:  $H+ICl \rightarrow I+HCl$



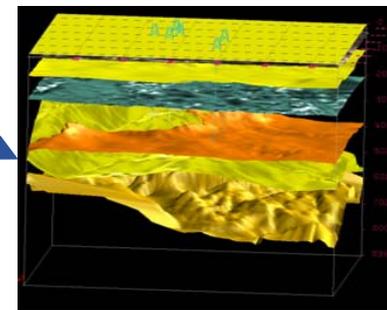
- From 1D data to 2D and 3D added value products



3D seismic

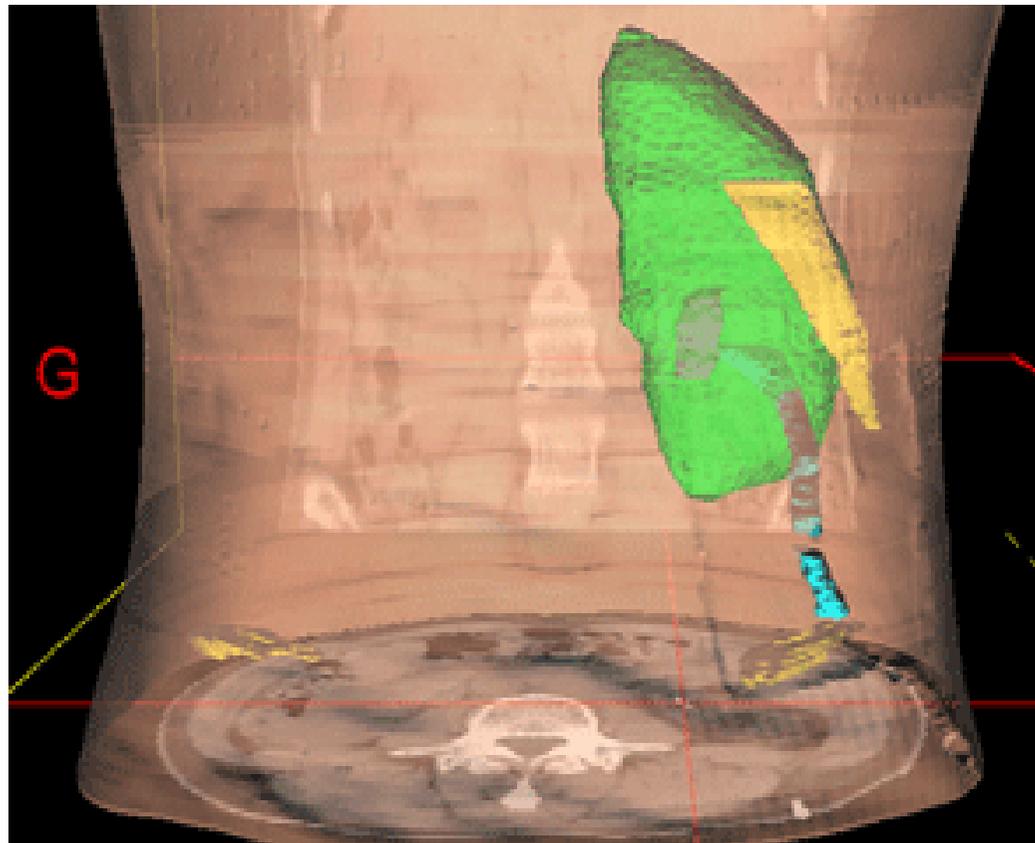


Velocity model



Structural model

- Reconstruction in 3D of specific organ



- **Setup**
  - All applications integrated with LCG-2 middleware
  - 3 demos running from a laptop accessing the Grid
    - GEMS: Through GENIUS Portal (running on GILDA)
    - EGEODE: Idem
    - gPTM3D: Directly (running on Production Service)
- **They show different stages of deployment: from GILDA to the Production Service**
- **Common issues**
  - Interactive jobs
  - Commercial license issues
  - Outbound connectivity
  - Web Portals

# Show Time!!