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Enabling Grids for E-sciencE

Status of the Project

Bob Jones, Project Director, CERN

EGEE 2nd EU review

6-7/12/2005

www.eu-egee.org

Information Society and Media

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- **General Status of the project, providing an overview of:**
    - Review Agenda
    - Project Achievements
    - Management Structure
    - Deliverables/milestones, contract status
    - Project-wide issues
    - Financial status
    - Manpower levels
    - Plans until the end of the project

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Tuesday

Status of the project – *Bob Jones*

Technical Coordination – *Erwin Laure*

DATAMAT – *Federico Rossi/Stefano Beco*

Grid operations – *Ian Bird*

Security – *Ake Edlund*

Training – *David Fergusson*

Applications – *Vincent Breton*

Demos – *Marc-Elian Begin, Ignacio Blanquet, Ladislav Hluchy, Viet Tran*
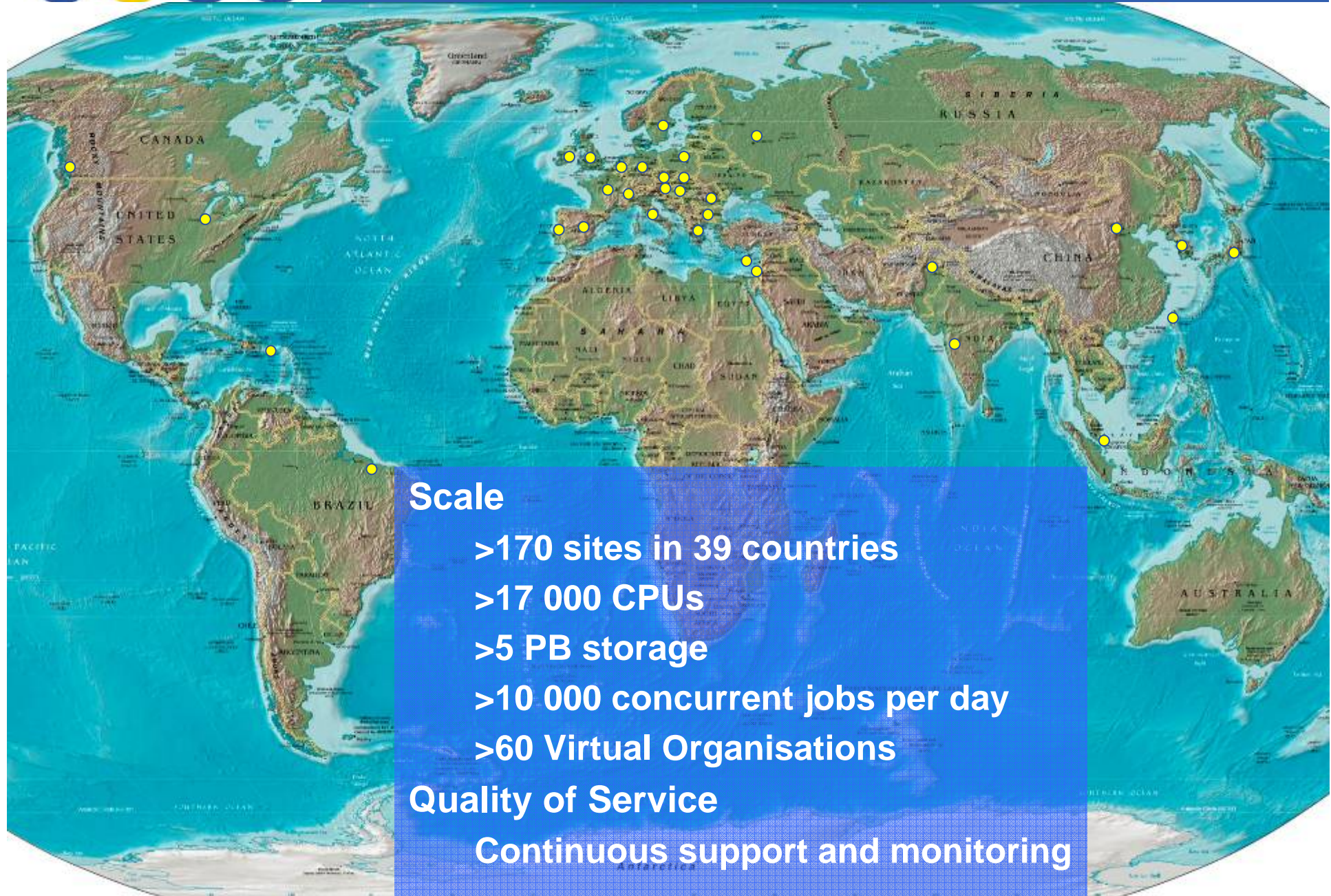
Networking – *Kostas Kavoussanakis*

Wednesday

Middleware – *Frédéric Hemmer*

Software Quality – *Alberto Di Meglio*

Quality Assurance – *Gabriel Zaquine*

Dissemination– *Joanne Barnett*

Policy & Collab. – *Fotis Karayannis*

Future Plans– *Dieter Kranzlmüller*

Conclusions – *Bob Jones*

Closed session

Feedback from reviewers

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Scale

>170 sites in 39 countries

>17 000 CPUs

>5 PB storage

>10 000 concurrent jobs per day

>60 Virtual Organisations

Quality of Service

Continuous support and monitoring

>20 applications from 7 domains

- High Energy Physics
- Biomedicine
- Earth Sciences
- Computational Chemistry
- Astronomy
- Geo-Physics
- Financial Simulation

Another 8 applications from 4 domains are in evaluation stage

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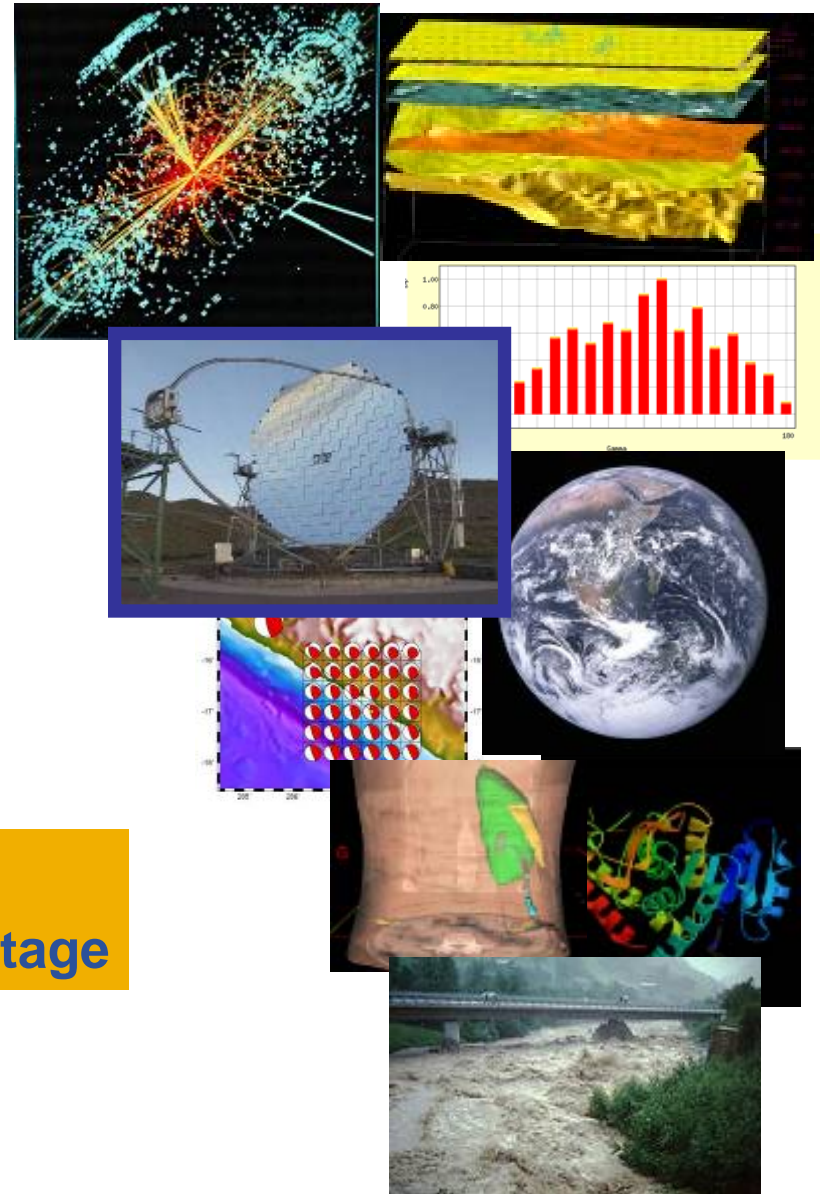
Now at gLite release 1.4

– Focus on basic services, easy installation and management

– Industry friendly open source license

– Several gLite components already in production usage

– Roadmap established for full deployment and usage

gLite

Lightweight Middleware for Grid Computing

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- **Activity success stories published**
- **Appeal of material greatly improved**
- **EGEE presented and promoted at over 300 events**
- **Project Conferences are now seen as key European grid events that bring together many projects**
- **Strengthened links with industry**

- **Many training events arranged around the world for users, application developers and site managers**
- **eLearning environment demonstrated**

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- **Operational interface between EGEE and Networks (GÉANT2/NRENs) with trails performed**

- **End-to-end Service Level Agreement (SLAs) defined**

- **Network Performance Monitoring (NPM) standard interface developed and adopted**

- **Bandwidth Allocation and Reservation architecture defined and interfaces implemented**

Unique collaboration with GÉANT2

Active across all activities

- **Quality Assurance**
  - Detailed analysis of operations and middleware has been performed and used used to improve the services, middleware and processes
  - The Metrics programme is in active use in all activities and periodically refined

- **Security**
  - Support for security related software modules in gLite
  - Successful work of Security groups (policy & middleware) on security infrastructure with other projects
  - EUGridPMA leading partner in the establishment and first chair of International Grid Trust Federation (IGTF)
  - Assessment of accounting infrastructure and analysis of what is missing to provide secure quota-based resource access

- **International cooperation activities:**
  - Support to the e-Infrastructures Reflection Group (e-IRG) defining grid policies across Europe and beyond
  - "Concertation" with other EU projects
    - Participated and contributed to many concertation-type events
    - Working groups
    - Joint deliverables & events (DEISA, DILIGENT) and Letters of Support for IST projects
  - Reinforced cooperation with other geographical areas (in middleware, operations, training and dissemination)
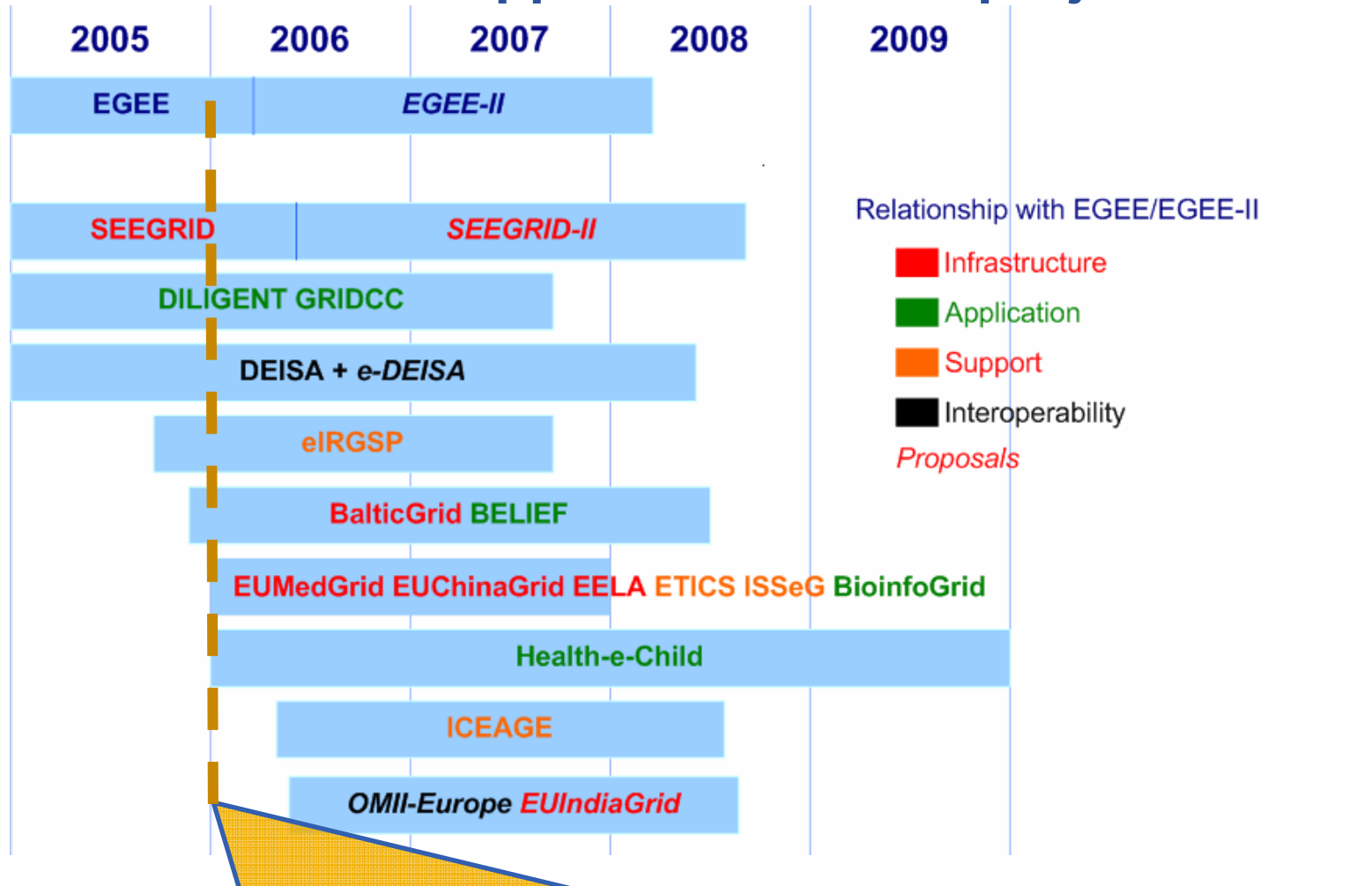   - Australia, China, India, Japan, South Korea, Taipei, USA
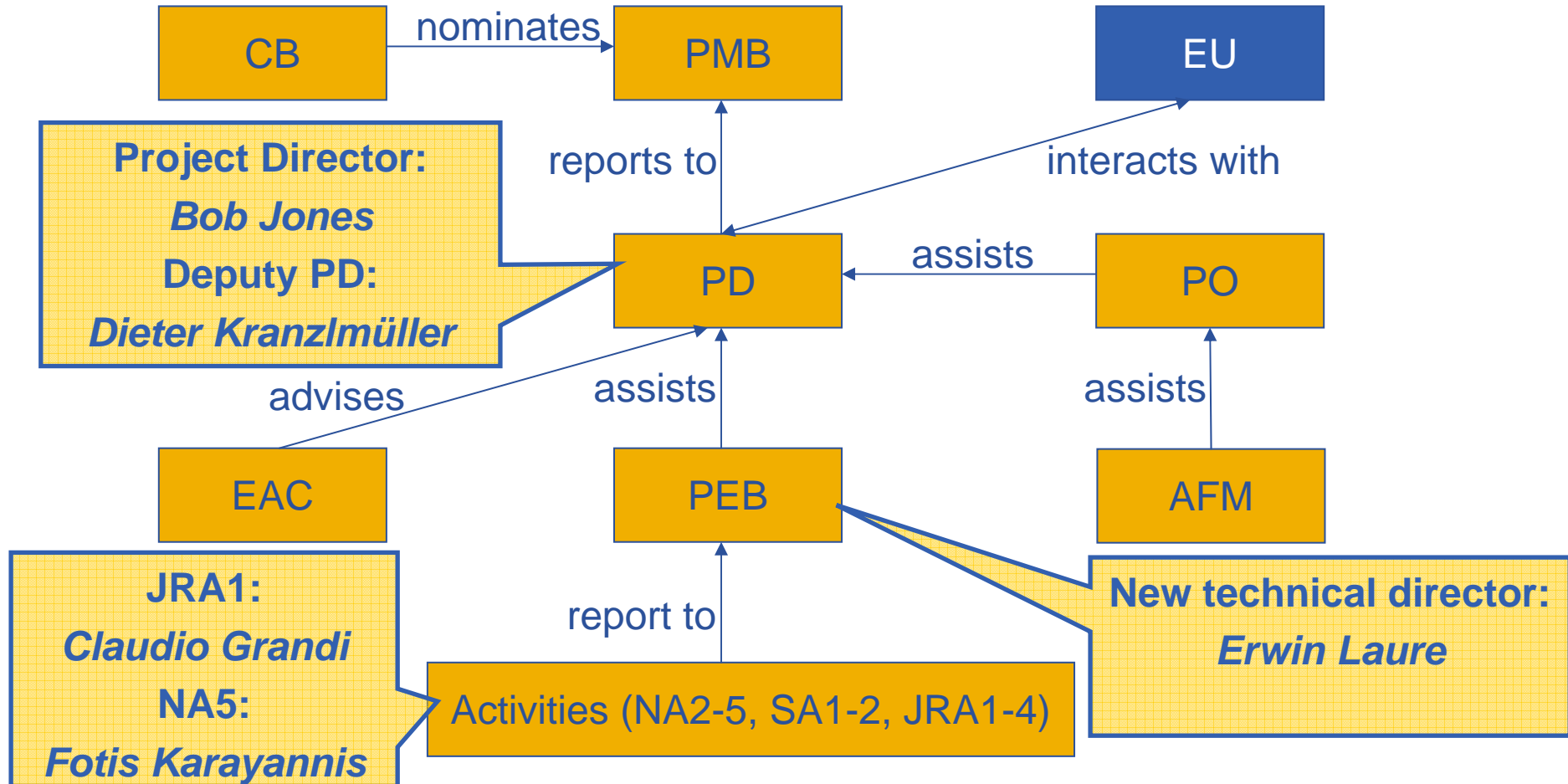
- **Standards activities**
  - EGEE members actively contribute to 11 GGF working groups and hold important leadership roles as area managers and security (IGTF)

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EGEE as incubator & supporter of related projects

	2005	2006	2007	2008	2009

EGEE — EGEE-II

SEEGRID — SEEGRID-II

DILIGENT GRIDCC

DEISA + e-DEISA

eIRGSP

BalticGrid BELIEF

EUMedGrid EUChinaGrid EELA ETICS ISSeG BioinfoGrid

Health-e-Child

ICEAGE

OMII-Europe EUIndiaGrid

Relationship with EGEE/EGEE-II

- Infrastructure
- Application
- Support
- Interoperability
- *Proposals*

Heavy load on EGEE to help with the start-up of these projects

CB — nominates → PMB

EU

Project Director:
Bob Jones
Deputy PD:
Dieter Kranzlmüller

reports to

interacts with

PD ← assists — PO

advises

assists

assists

EAC

PEB

AFM

JRA1:
Claudio Grandi
NA5:
Fotis Karayannis

report to

New technical director:
Erwin Laure

Activities (NA2-5, SA1-2, JRA1-4)

AFM	Admin. Federation Meeting	PD	Project Director
CB	Collaboration Board	PEB	Project Executive Board
EAC	External Advisory Committee	PMB	Project management Board
EU	European Union	PO	Project Office

- **All 36 deliverables/milestones PM10-18 done**
  - Submitted to internal review process before delivery to EU
  - The rationalization of the reporting process recommended at the 1st EU review will have an effect on the 7th and 8th quarters
    - A number of deliverables have been combined and scheduled to maximize their impact
- **Second contract amendment accepted in July 2005**
  - Updated plans for the remaining 15 months of the project
  - Modification of the reporting periods & payment modalities
  - Confirmation of seven Joint Research Units

- **Follow up of the first review and response to recommendations by the reviewers**
  - Included in reviewers' pack

Financial status

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- **An internal cost claim exercise took place at the end of the 6ᵗʰ quarter (project month 18) - the estimated requested contribution for the consortium is 22 M€**

  – Approx. 91% of costs are personnel, 7% are travel, 2% materials and audit certificates

  – This represents 69% of the EU maximum contribution (31.867 M€)

- **An extrapolation to the end of the project indicates ~98% budget consumption**

  – Minor reallocations are planned until the end of the project (see later)

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- **Further refined PPT tool to monitor project effort consumption (timesheets)**
  - **Over 1000 people registered across Europe and Russia**
  - **Total equivalent of ~ 436 FTEs**

Total (F+UF) Effort in PM
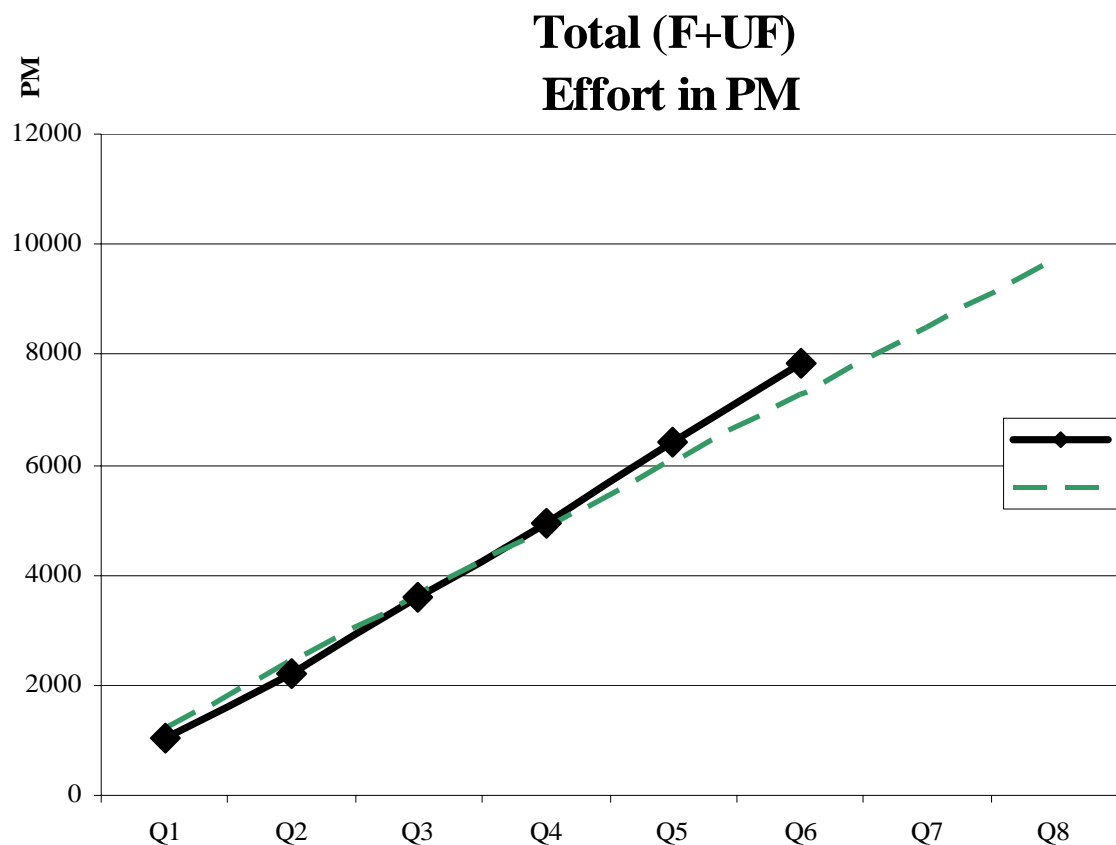
Legend:
- **F: Funded**
- **U: Unfunded**
- **PM: Person Months**
- **FTE: Full time equiv.**

Legend (chart): —◆— Consumed F+UF Effort / — — Expected F+UF Effort

Consumed Effort		
Funded	**Unfunded**	**Total**
80%	**90%**	**82%**

- **Reallocation of effort**
  - Middleware testing effort has increased since first review but is still less than needed
  - Suggest to reassign unspent effort of a few partners already active in SA1 to help with testing tasks taking into account the financial status and extrapolation presented earlier

- **Staff retention**
  - EGEE was foreseen as part of a 4 year programme
  - EGEE-II submitted in September with hearing held in November
  - Expect to be invited for negotiations shortly
  - Must have start date of 1st April to ensure continuation and staff retention
    - some staff have already resigned

- **Ensure that:**
  - Final deliverables and milestones (PM19 – PM24) are of high quality and delivered on time
  - Preparation of book closing, final financial and effort reporting
  - Continue to encourage & assist the development of related projects
  - Ensure plans for follow-on phase are completed
    - Timeliness is important for staff retention
  - Preparation of the final EU review in May 2006
    - Need to fix dates avoiding important grid events (e.g. IST-Africa, GGF17, GridAsia, Terena conference etc.)
    - Propose week of 22nd May

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- **EGEE is THE largest multi-disciplinary research grid infrastructure in the world**

- **EGEE has lead the way in building a consistent European view of grid infrastructure via a number of related projects and international collaborations**

- **Proposal for a second phase (EGEE-II) on-track**
  - Long-term sustainability discussed tomorrow

Climate Modeling
Nanotechnology
Biodiversity   Geophysics
Earth Observation
Chemistry   Astronomy
Industry
Bioinformatics
Particle Physics

Pilot   New