

# European Grid Initiative Design Study Current Status

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(With thanks to Juergen Knobloch for pictures)



## **Project Information**

- Title: European Grid Initiative Design Study
- Budget: 3 872 425 €
- EC Contribution: 2 497 000 €
- Starting date: September 1<sup>st</sup>, 2007
- Duration: 27 months
- Total man power: 299.25 PMs
- Coordinator: CESNET, Czech Republic (since July 1<sup>st</sup>, 2008)

GUP University Linz, Austria (till June 30<sup>th</sup>, 2008)



## **Project Partners**

- 1. CESNET (coordinator): CESNET, zajmove sdruzeni pravnickych osob (Czech Republic)
- 2. GRNET: Greek Research and Technology Network S.A. (Greece)
- 3. INFN: Istituto Nazionale di Fisica Nucleare (Italy)
- 4. CSC: CSC TIETEELLINEN LASKENTA OY (Finland)
- 5. LMU: Ludwig Maximillian Universitaet (Germany)
- 6. CERN: European Organization for Nuclear Research (Switzerland)
- 7. **DNF**: Verein zur Foerderung eines Deutschen Forschungsnetzes DFN-Verein (Germany)
- 8. STFC: Science & Technology Facilities Council (UK)
- 9. CNRS: Centre National de la Recherche Scientifique (France)
- 10. GUP (former coordinator): Johannes Kepler Universitaet Linz (Austria)



## Goal of EGI Design Study

- Design of a new organizational model of a sustainable pan-European Grid infrastructure
  - the Blueprint and the Function Description
- Securing the endorsement of the proposed design
  - Endorsed at the Policy Board Meeting on 20<sup>th</sup>
     January 2009
- Preparation and setup of the new organization
  - the EGI.org, the EGI project

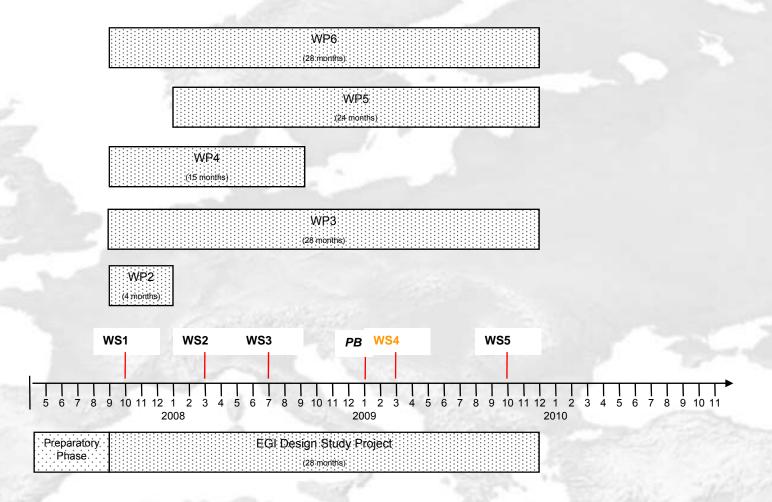


## **Project Organization**

- Five workpackages to deal with the objectives
  - WP2: EGI Requirements Consolidation
  - WP3: EGI functions definition
  - WP4: Design study of EGI legal and organisational options
  - WP5: Establishment of EGI
  - WP6: EGI Promotion and links with other Initiatives
- The management workpackage WP1



## Workpackage timing





## **Project Review**

- October 3, 2008, Brussels
- Successfully passed (Good to Excellent)
- Major issues from the review report
  - Steps for the targeted call for EGI in 2009
  - NGI maturity: Identify credible potential partners, assess the NGI maturity in regular intervals
  - Location of the EGI.org
  - Convincing EC at the political level
  - Convincing National Authorities and funding bodies



## The Blueprint

- General framework for the EGI
- Defines role of
  - EGI.org
  - NGI international tasks
    - Operations
    - User and application support
    - Middleware maintenance
- Business model
- Financial framework



#### The Road to the Current Blueprint

Requirement s from NGIs, EGEE

WP3 consolidation WS 29-31-Jan-08

- MW: Coordination no development
- Provision of a large-scale production Grid infrastructure

Org **D5.2: Draft Convention** Rome D4.4: workshop **Early Draft of** 13-1/ Xarch-08 Blueprint Geneva workshop Second **30-June-08 Feedback Draft of** from: **Blueprint** NGIs, **Istanbul workshop** EGEE, 22-Sep-08 other Grids eedba 웃 PRACE. Final **Blueprint** WLCG, etc. **Prague Policy Board** March 2nd, 2009 20-Jan-09

D5.1: Draft Definition of EGI

EGI workshop, Catania

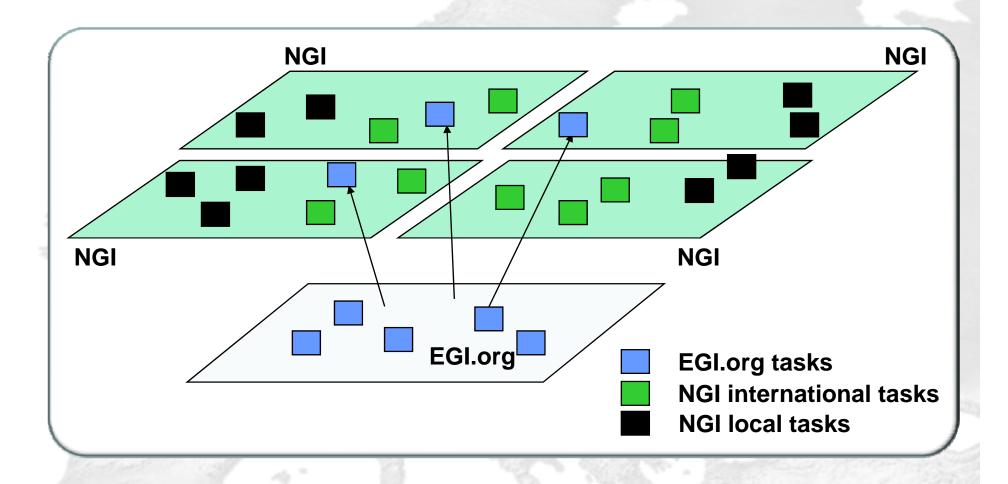


#### **EGI Basic Elements (from Blueprint)**

- EGI = EGI.org + NGIs
  - EGI.org as a coordinating body
  - NGIs basic sustainable actors
    - National funding
    - Own agenda and tasks
  - Synergies when working together at the EU level NGI international tasks
- No middleware development within EGI
  - However, middleware maintenance included



#### **EGI.org and NGI Tasks**



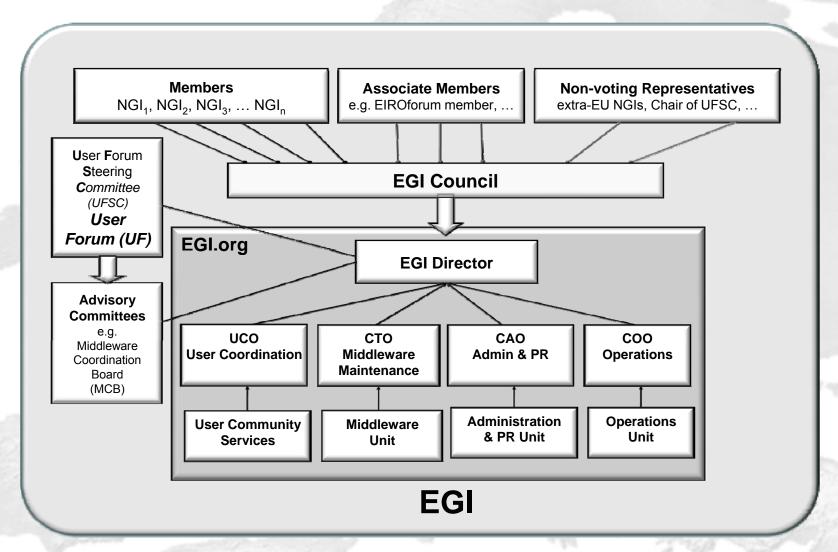


#### **Business Model**

- International research teams and projects need a common international infrastructure to share data and compute resources
- EGI ensures a common infrastructure
  - National funding of research infrastructures → NGIs
  - Coordination through EGI.org
  - Steered by users



#### **EGI Management/Governance**





## **Funding**

- National and Institutional funding for research infrastructures
- EC funding
  - International coordination
  - International activities
  - Innovation
  - Start up phase
- National co-funding of all these activities



## Resources for EGI.org

| Costs for                                     | EGI.org Costs<br>(in FTE/a) |
|---|-----------------------------|
| Operations                                    | 17                          |
| Middleware interfaces and final certification | 8                           |
| <b>User Community Services</b>                | 11                          |
| External Liaison Functions                    | 4                           |
| EGI.org Management and Administration         | 11                          |
| Total   | 51                          |



#### Resources in NGIs

| Task                                  | Small NGI   | Medium<br>NGI | Large NGI | "Sum"   |
|---------------------------------------|-------------|---------------|-----------|---------|
| Operations and Security               | 2-4 FTE     | 5-10 FTE      | 14-22 FTE | 225 FTE |
| International User Community Services | 0.5-1.7 FTE | 1-2.5 FTE     | 1.5-4 FTE | 60 FTE  |
| Specialised Support Centres           |             |               |           | 50 FTE  |

Based on current experience
These resources exist in countries with operational grid
infrastructure

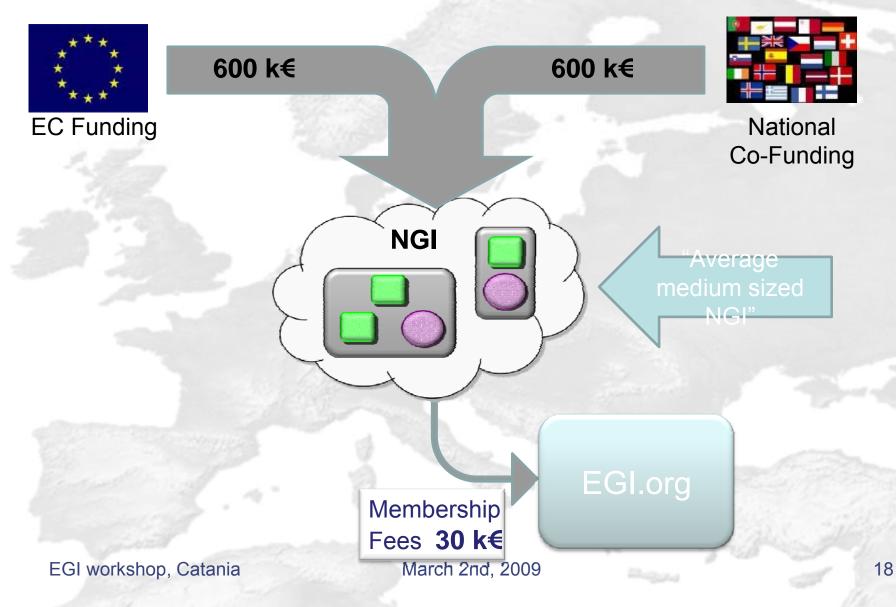


#### **EGI Financial Reference Model**

|  | NGI International tasks |                  | Middleware  |         |       |  |  |  |
|--|-------------------------|------------------|-------------|---------|-------|--|--|--|
|  | Operations              | User<br>services | maintenance | EGI.org | Total |  |  |  |
| Costs  |                         |                  |             |         |       |  |  |  |
| EGI Effort (FTEs)  | 225                     | 110              | 70          | 51      |       |  |  |  |
| EGI costs (M€/year)  | 20.25                   | 9.90             | 6.30        | 4.59    | 41    |  |  |  |
| Income   |                         |                  |             |         |       |  |  |  |
| NGI membership fees (M€year)   |                         |                  |             | 1,0     | 1     |  |  |  |
| <b>EC Contribution (M€year)</b>  | 10.125                  | 4.95             | 3.15        | 1.80    | 20    |  |  |  |
| NGI, Middleware consortia<br>and EIRO/ESFRI co-funding<br>Contribution (M€/year) | 10.125                  | 4.95             | 3.15        | 1.80    | 20    |  |  |  |

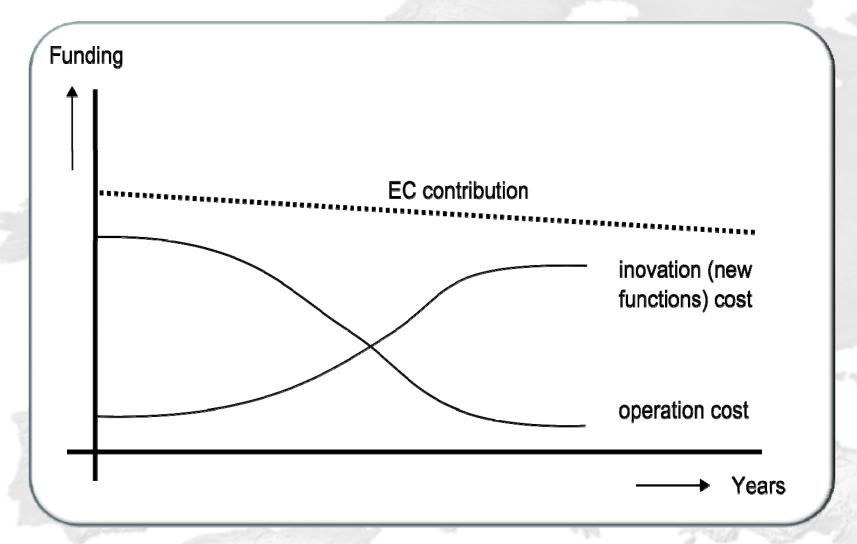


#### Funding view of (medium) NGI





#### **Funding Evolution**





#### **Transition towards EGI**

- EGEE and similar EU projects
- Major issues
  - NGIs maturity level
    - The EGEE JRUs not always identical with the proto-NGI
    - Representing/working with different user communities
    - Different approaches toward national infrastructures
  - EGI.org
    - Location
    - Key personnel identification
- Need for EGI technical representation
- "Grid Infrastructures transition towards EGI" (Deliverable D5.5)



## **EGI.org Location**

- Process accepted in Istanbul (September 2008)
- Call for bids closed January 7<sup>th</sup>, 2009
- Total of 8 bids received
  - France (Lyon), Finland (Espoo), Italy (Milan), Lithuania (Vilnius),
     Netherlands (Amsterdam), Poland (Krakow), Slovenia
     (Ljubljana), Spain (Trujillo)
- Evaluation Board constituted during EGI PB meeting in Prague (January 20<sup>th</sup>)
- Decision to be taken by the PB in Catania today, March 2<sup>nd</sup>
- EGI.org established before September 2009
  - Core of EGI Council established in June



## Further steps

- NGI assessment
  - Requirement from the review
    - To identify status of preparedness
  - To confirm
    - Acceptance the EGI framework as described in the Blueprint
    - Commitment to the EGI.org fees
    - Commitment to the NGI international tasks and their cofunding
  - MoU to define the EGI Council membership
    - Former EGI Convention
- EGI project



## **Expected further timing**

- For EC co-funding, target the EC call this Autumn
  - Expected closure of calls in December 2009
- Identification of project partners
  - EGI MoU to be signed in May
- Setup of project editorial board
  - By NGIs who signed the MoU (the EGI Council)
  - In parallel with EGI.org setup and key personnel identification
- Writing the project
  - Since July/August 2009



#### **Deliverables**

- D3.2 Final EGI functions definitions
  - Month 20 (April)
- D3.4 EGI functions definition feedback
  - Month 22 (June)
- D5.5 Grid infrastructures transition towards EGI
  - Month 22 (June)
- D5.6 EGI Memorandum of Understanding
  - Month 20 (April, signed June)



#### Summary

- The first phase successfully completed
  - Blueprint accepted and endorsed
  - Huge interest in hosting EGI.org, decision hopefully taken in a short time
  - Clear financial breakdown
- The second phase even more challenging
  - Securing EC and national funding
  - EGI.org setup and personnel identification
  - NGIs committing to the EGI framework
  - Clear definition of the transition path for all EU and national Grid infrastructures







#### http://www.eu-egi.eu contact@eu-egi.eu