

# Initial Experience with EGI

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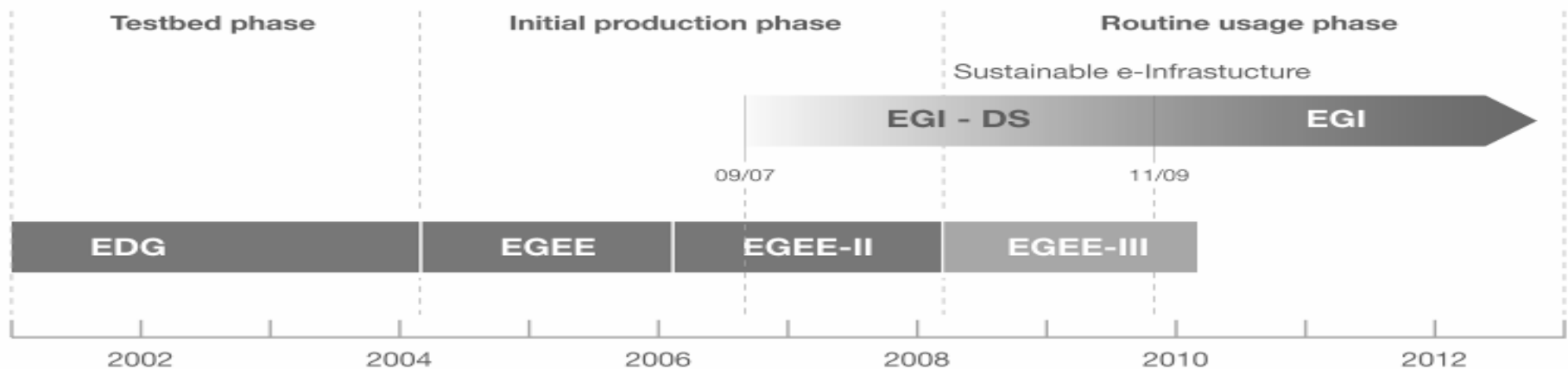
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# Why build a European Grid Infrastructure?

Infrastructure is the basic physical and organisational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function

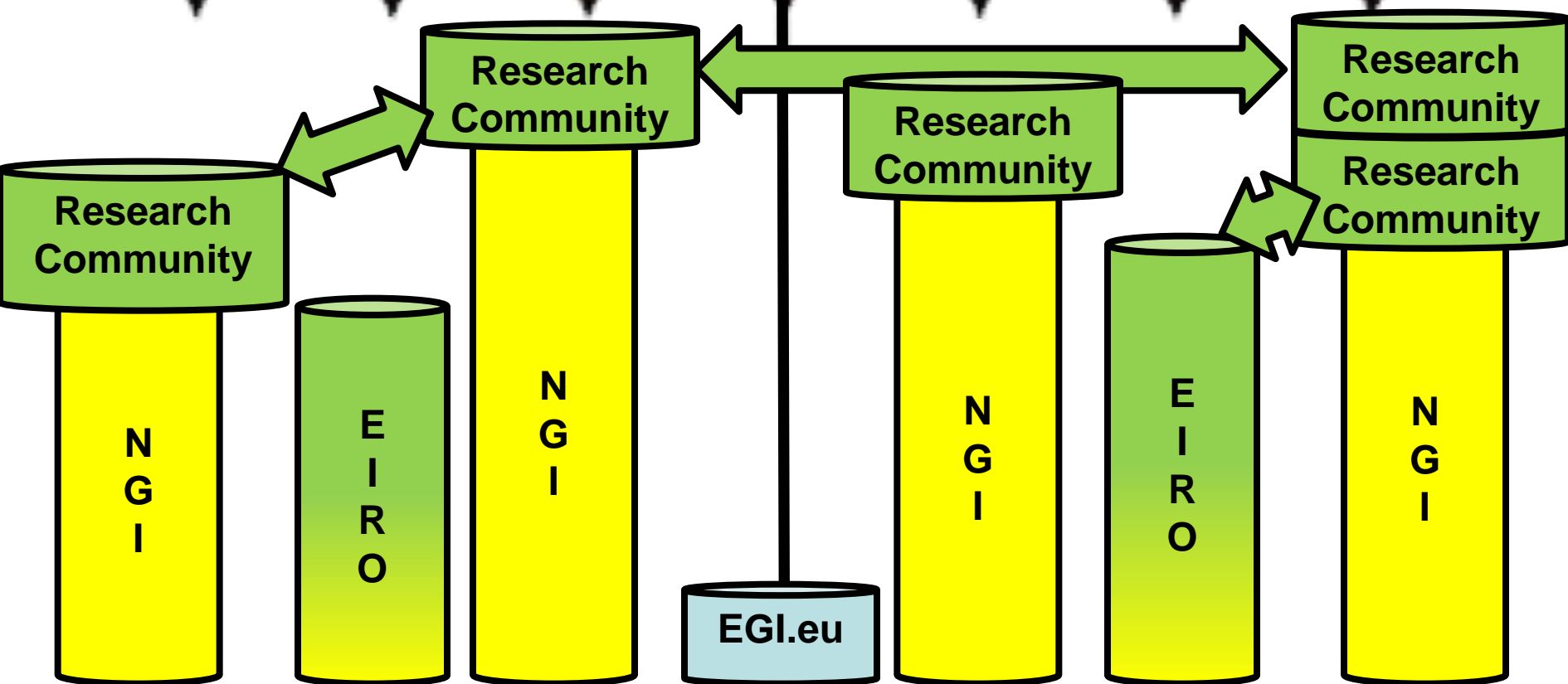
The Enterprise is the European Research Area

- European Data Grid (EDG)
  - Explore concepts in a testbed
- Enabling Grid for E-science (EGEE)
  - Moving from prototype to production
- European Grid Infrastructure (EGI)
  - Routine usage of a sustainable e-infrastructure



# EGI

# Collaboration

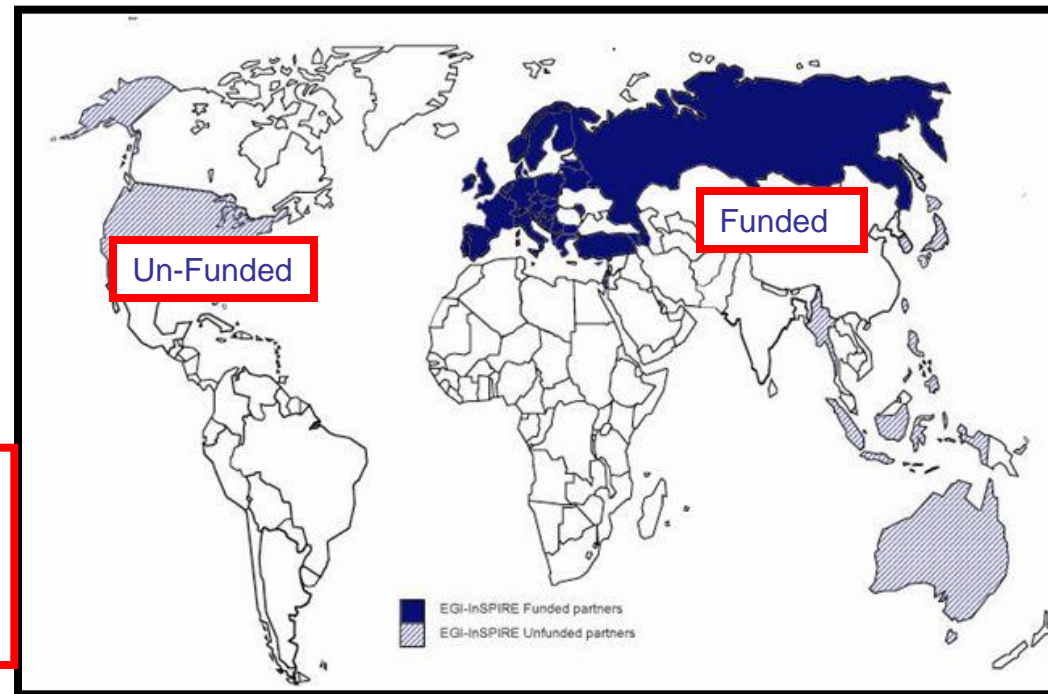


- Coordination for European Grid resources
  - Established February 8th 2010
  - Central policy & services needed to run a grid
  - Sustainable small coordinating organisation
- Governance & ownership by its participants
  - EGI Council votes linked to fees
  - Resources from within its participants
- Located in Amsterdam with approx. 40 staff
  - Coordinating core (~20 people) in Amsterdam

EGI and EGI.eu supported by EGI-InSPIRE project

## Integrated Sustainable Pan-European Infrastructure for Researchers in Europe

- A 4 year project with €25M EC contribution
  - Project cost €72M
  - Total Effort ~€330M
  - Effort: 9261PMs



### Project Partners (51)

- EGI.eu, 40 NGIs, 2 EIROs
- Asia Pacific (8 partners)

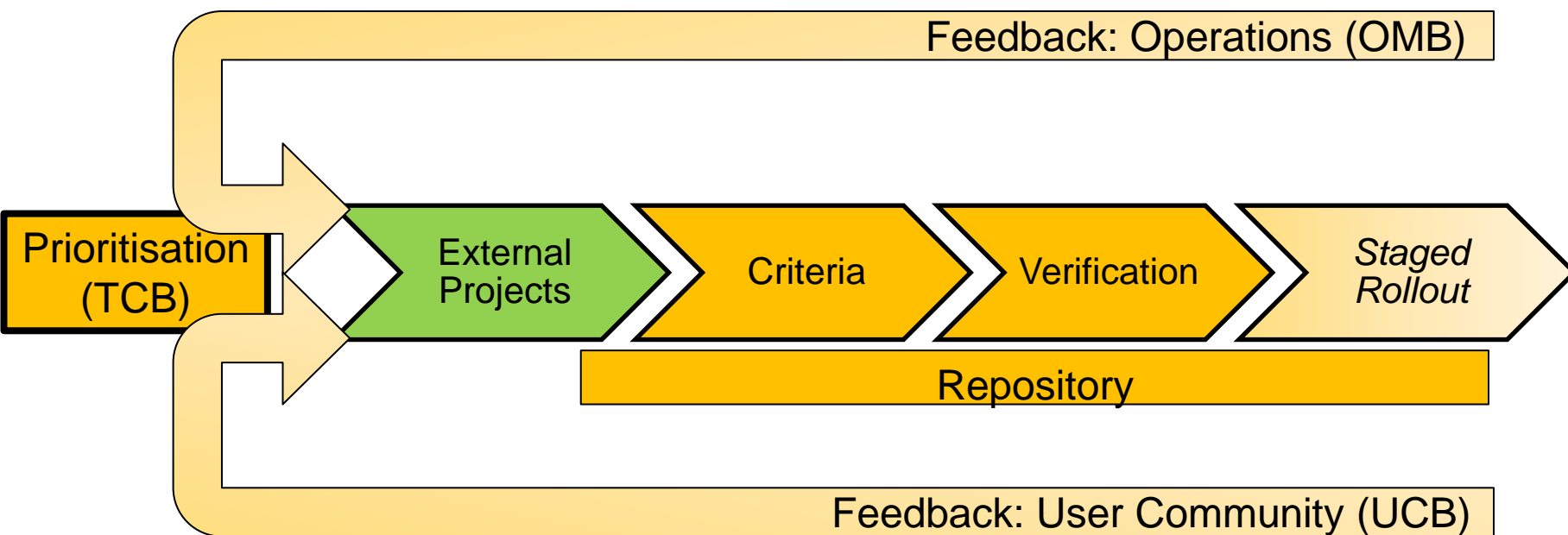
- **Continue towards a sustainable production infrastructure**
  - With infrastructure providers in Europe and around the world
  - With new DCI technologies as they mature
- **Provide support to current structured international research communities**
  - Sustain current domain specific services
  - Attract new user communities (e.g. ESFRI)



- SA1: Reliable Operation of the production infrastructure
  - Monitoring, accounting, operational security
  - Helpdesk & NGI Support teams
  - Validation of new technology & operational tools
- SA2: Provisioning the Software Infrastructure
  - Definition of software coming from external projects
  - Validation of delivered software
  - Software repository and support tools
- SA3: Support for Heavy User Communities
  - Services & tools for all users of the infrastructure
  - Domain specific support for current heavy users

- NA1: Project & Consortium Management
  - Project Office and Quality Assurance
- NA2: External Relations
  - Policy Development and Dissemination
  - Community Building Events
- NA3: User Community Coordination
  - EGI.eu and NGI support teams
  - Supporting Technical Services for Virtual Research Communities
- JRA1: Support for Operational Tools
  - Maintenance and Development
  - Support for new resources and their accounting

- Deploy Technology Innovation
  - Distributed Computing continues to evolve
    - To include: Grids, Desktops, Virtualisation, Clouds, ...
- Enable Software Innovation
  - Provide reliable persistent technology platform
    - Tools built on gLite/UNICORE/ARC/Globus
- Support Research Innovation
  - Infrastructure for data driven research
    - Support for international research (e.g. ESFRI)



- TCB: Technology Coordination Board
  - Getting the right working software in from external technology providers
- OMB: Operations Management Board
  - Providing a secure reliable NGI/EIRO based operational infrastructure
- UCB: User Community Board
  - Representation of the structured virtual research communities
- External Advisory Committee: High-level input into the EGI-InSPIRE PMB

- Support User Communities
  - Researchers in International Collaborations
  - National Research Collaborations through the NGI
  - Scale up from the single VO to a community
- Provide a federated Helpdesk linking:
  - Discipline specific support (e.g. Bio Apps)
  - National infrastructure support (e.g. NGS)
  - Generic services (e.g. Training)
- Provide core services to support users
  - Manage VOs, Application DB, Training DB

- Dissemination
  - With NGIs, VRCs, SSCs and other projects
- Support for Heavy User Communities
  - General & community specific services
- Events
  - Two Annual meetings: Users & Technology
- Technology Assessment and Integration
  - Liaison with software providers
  - Definition and verification of requirements

- Will come from outside EGI
  - Moving research technologies into production
- Partnership with technology projects
  - EMI (European Middleware Infrastructure)
  - IGE (Initiative for Globus in Europe)
  - EDGI (European Desktop Grid Initiative)
  - StratusLab
  - VenusC



- EC project supporting WLCG has moved
  - CERN → Amsterdam
- Dedicated organisation supporting *all* users
  - Recognising that WLCG is one of the key structured user communities
- HEP is part of the SA3 (Heavy User) WP
  - Support for Dashboards, GANGA & DIANE
  - HEP VO's Services & Support



- National Grid Infrastructure
  - Operations
  - User Support
  - Management
- Provisioning of Global Tasks
  - EGI Helpdesk (GGUS)
  - Accounting
  - CIC Portal
  - Security
  - Coordination
  - Middleware definition, verification and rollout
  - etc

- Recruitment
  - EGI.eu in Amsterdam: ~85% by 1<sup>st</sup> September
  - EGI.eu in partners: Cover for all global services
- Operations
  - Many changes undertaken during EGEE-III
  - Some refinement ongoing
  - ~18 NGIs being established in GOCDDB

- EGEE:
  - Demonstrated a production e-infrastructure
- EGI:
  - Provide a sustainable production e-infrastructure
- EGI.eu established in Amsterdam
  - Supported transition through EGI-InSPIRE
- Contact: [director@egi.eu](mailto:director@egi.eu)