

e-Science grids: where does Europe stand?

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"The views expressed in this presentation are those of the author and do not necessarily reflect the views of the European Commission"

a new vision for Science

a new vision for Science



- Global challenges with high societal impact
- Big Science and the role of “empowered” citizens
- Data deluge... born digital material... virtual-labs
- Cross-disciplinarity
- Spread of skills and competences

ICT infrastructures for e-Science



a staged approach



Linking the ideas at the speed of the light:
GÉANT



Sharing the best resources:
e-Science grid



Accessing knowledge:
scientific data



Innovating the scientific process:
global virtual research communities



Designing future facilities:
novel e-Infrastructures



evaluation perspective

- **Achievements...**

 - positioning in the world scene

- **Sustainability...**

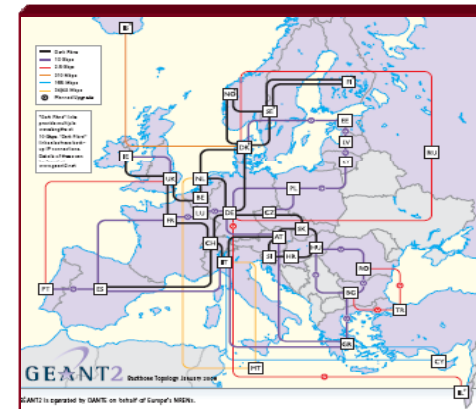
 - organisational models and governance

- **Challenges and responses...**

 - European Commission, Member States and sector actors

GÉANT network

- World leading network... good global foot print
- Governance model progressively consolidated
European approach builds on NRENs
Service provided to all communities
- Reinforce coordination

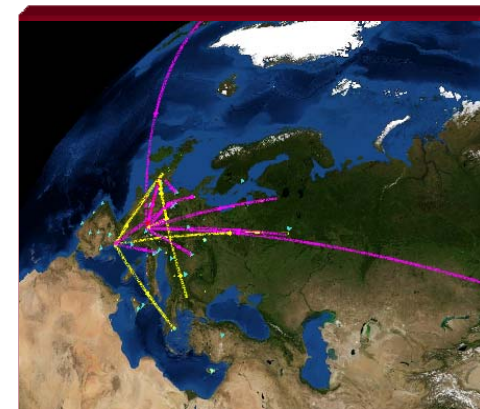


- Consolidate world leadership



e-Science grid

- EGEE - world largest multi-science grid
- Evolve organisation model
 - Infrastructures funded on a project basis
 - Maintain openness to scientific communities
 - Build European strategy on top of National ones
- Reinforce National Grid Initiatives, investments and coordination
- **Structure the e-Science grids landscape**



European HPC service

- DEISA - grid of 11 supercomputers
PRACE investing in new capabilities
user communities very knowledgeable
- Develop organisation model at European level
- Scale-up and pool investments,
develop a strategic agenda,
identify industrial impacts
- **Build the new generation of
supercomputing facilities**

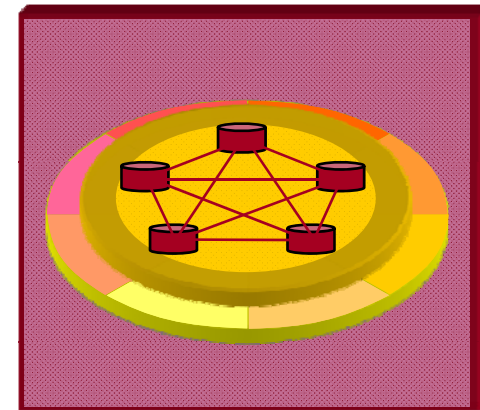


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scientific data

- Only 28% of the research output is managed in digital repositories
DRIVER providing early results
“EU Open Access Pilot” announced
- Consolidate organisation models
- Ramp-up investments and share best practices
- **Enhance access to scientific data**



global virtual research communities

- Europe needs to capitalise on the maturity level reached by e-Infrastructures
- Investments in heavy “physical” infrastructures need to be e-Infrastructures aware
- Sector actors need to ensure that Europe embraces the e-Science paradigm
- **Host global virtual research communities**



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consolidating e-Science grid efforts

- EGEE instrumental in federating disciplines and coordinating strategies
- Important to consolidate, deepen and enlarge
- e-Science grid governance model needs to evolve:
 - building upon the emerging National Grid Initiatives
 - towards an inclusive European Grid Initiative
- Preparation of new Capacities Work Programme starting

further information

www.cordis.europa.eu/fp7/ict/e-infrastructure/

