

The EU e-infrastructure initiative

The need for new policies...

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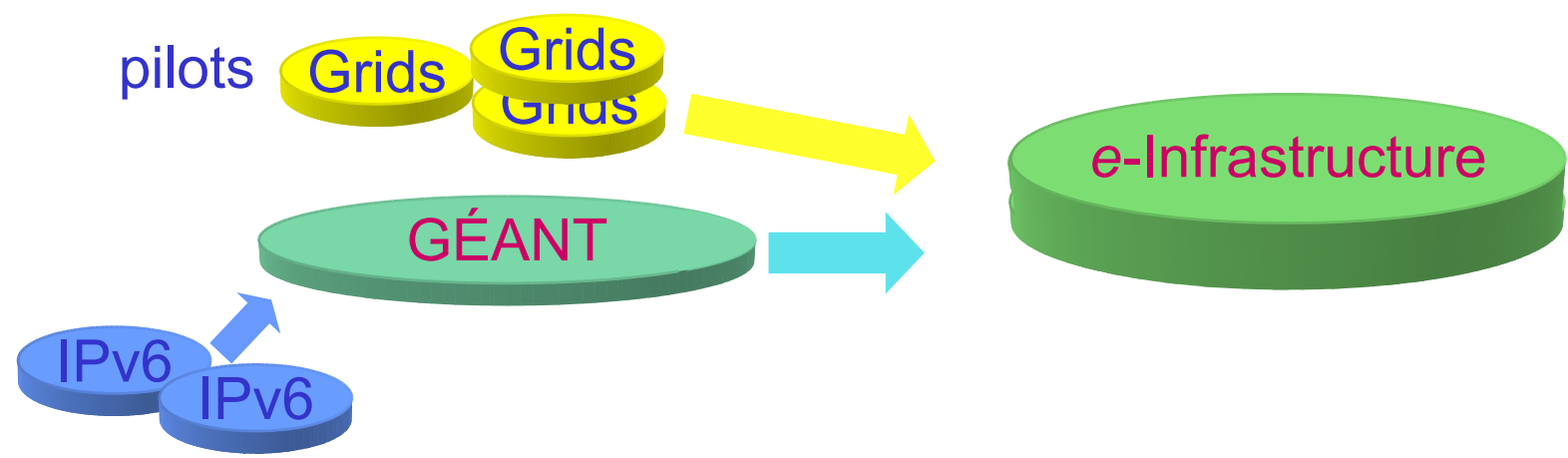
12th June 2003

Conclusions

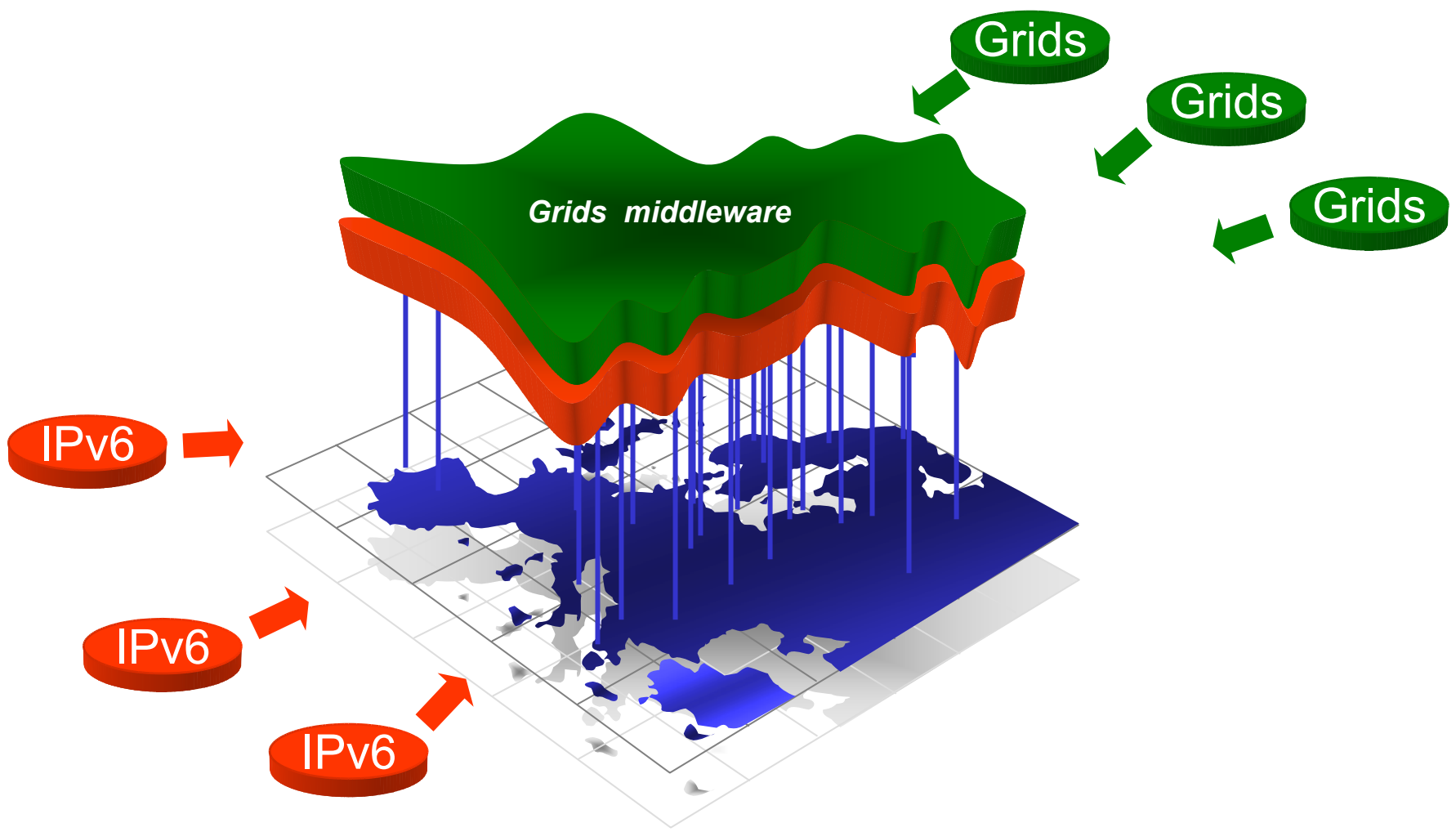
- ➔ The creation of **virtual research organisation** is key to rationalise investments in e-Science.
- ➔ The EC has established an ambitious plan to implement the objectives identified in FP6 for GEANT and Grids.
- ➔ With the work on GÉANT and Grids (Research Infrastructure in close cooperation with IST), the European Commission expects to deploy an **e-Infrastructure** for **all Research Communities**, thus contributing to the fast deployment of the **European Research Area!**
- ➔ Research Infrastructure require more than technology... require **policies!** EC is ready to cooperate with Member States to devise and implement them!

Moving towards an e-infrastructure

- ➔ Europe **deployed** the most performant research backbone network in the world (GÉANT), **boosting the researchers ability to transfer** information
- ➔ Europe **piloted** new and particularly powerful forms of distributed computing (Grids testbeds), **boosting the researchers ability to process** information

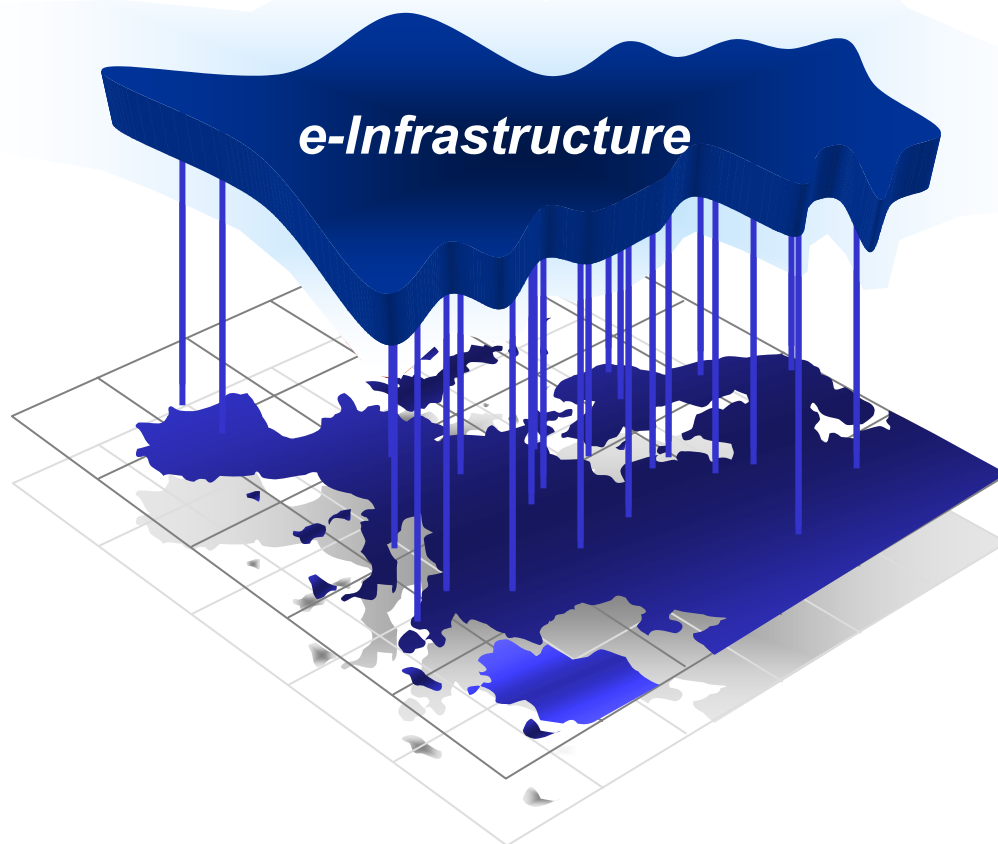


Moving towards an e-infrastructure



Moving towards an e-infrastructure

In FP6, deployment of a Grid empowered e-infrastructure



Vision - creating an e-infrastructure...

Global knowledge infrastructure

e-Science
e-Health
e-Learning
e-Business
aeronautics
genomics
environment
astronomy

e-Infrastructure
(Grids empowered)



security

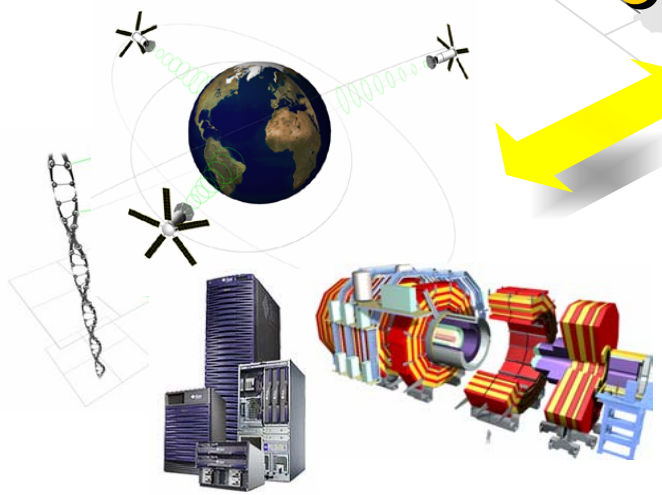
semantic
web.

broadband

Grid

automatic
management

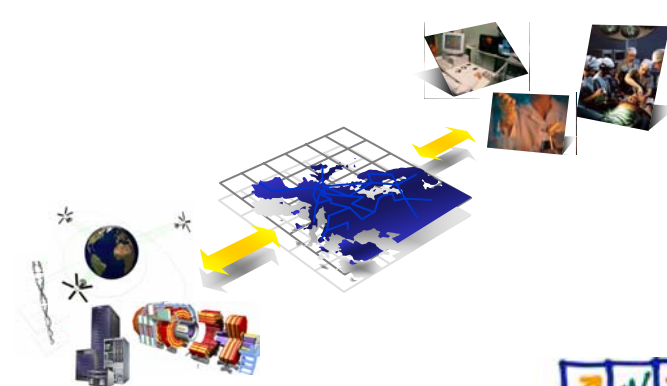
mobility



e-infrastructure...

Contributing to EU policies:

- “corner-stone” of ERA
- “spear-head” of an “eEurope infrastructure”
(e.g. broadband plus)
- “integrator” of National Infrastructures
- powerful “instrument” for International cooperation
- ... cohesion, cooperation,
standards, industrial, etc...



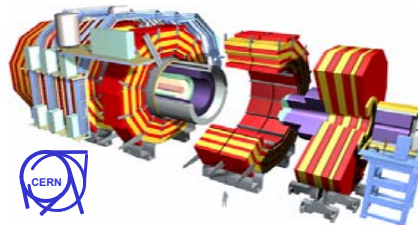
e-infrastructure...

Changing the way research is done:

- e-VLBI – radio telescopes



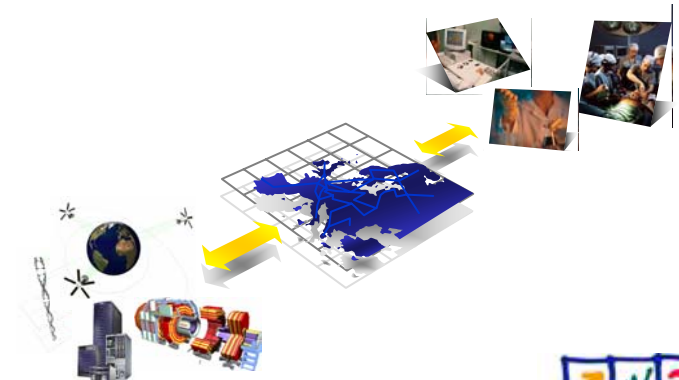
- Large Hadron Collider



- Health Grid initiatives



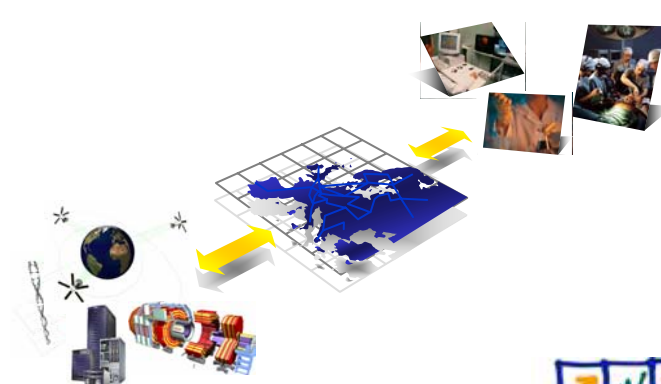
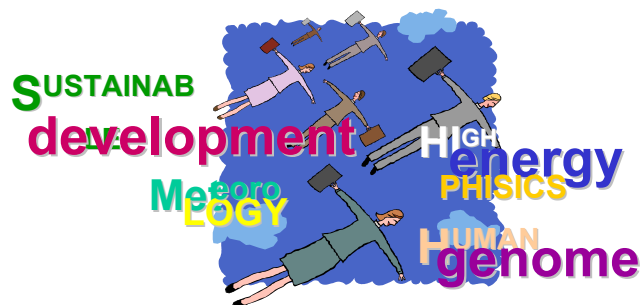
- Crash simulations



Research infrastructure e-infrastructure...

Serving the user communities:

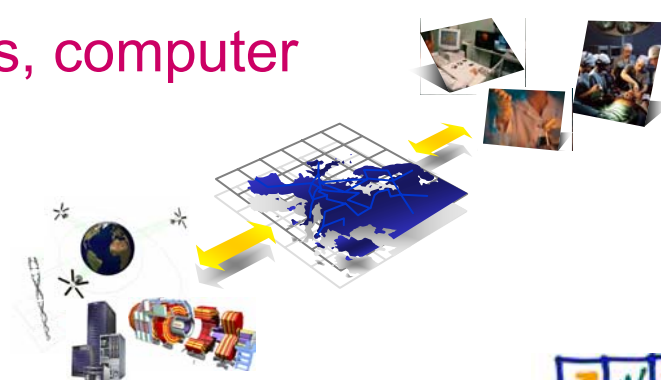
- Serving both the “normal” user and the demanding communities, in a dynamic way
- Challenging the Research Networks... calling for the use of the latest technology and possible access to dark fiber
- Raising the requirements to be fulfilled by the Grids initiatives (stable provision of services, operational support to different research communities, continuous integration of new research communities, ...) aiming at the establishment of virtual research communities



e-infrastructure...

Addressing requirements of different nature:

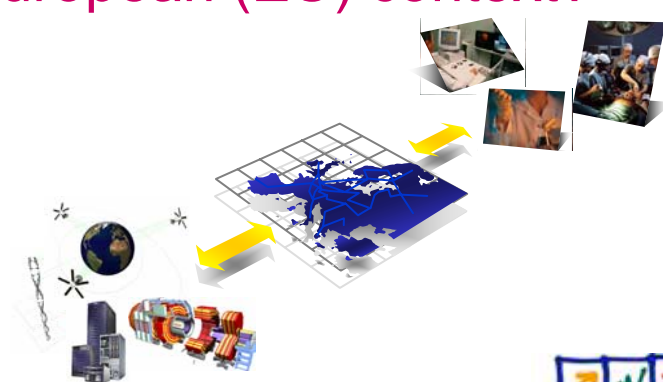
- Technology
 - middleware, brokers, re-engineering of solutions, interworking
- Organisational
 - projects, clustering, conferences, human networking, provision of services
- Policies
 - articulation of national and European (global) policies
 - access to resources (databases, computer power, instrumentation,...)
 - geographical coverage
 - rationalisation of investments



e-infrastructure...

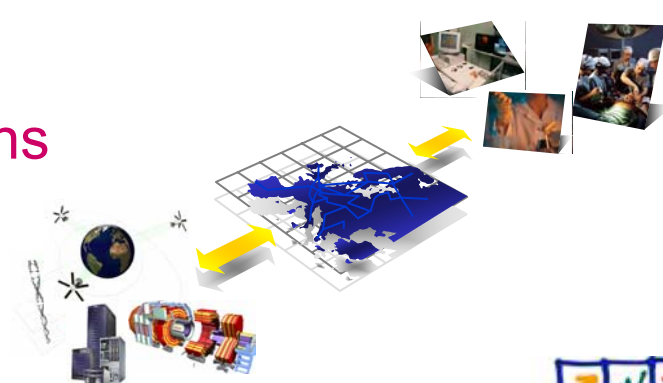
Developing the concept means using several instruments:

- EU projects (I3 in Research Infrastructure Programme... but also CA and SSA)
- National initiatives
- Regional/structural funds
- ERANnet like initiatives
- Mobilising initiatives such as eEurope
- ...
- Any role for National Initiatives in the European (EU) context?



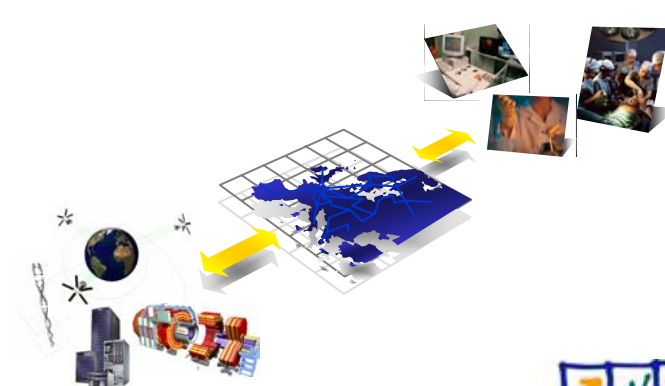
Role of National Initiatives in the European (EU) context:

- Steering Group of the National Grids Initiatives?
 - Exchange information
 - Reflect on the challenges raised by a Europe wide infrastructure
 - Promote the adoption of long term common strategies, policies and common practices
 - Initiating workshops
 - Broaden the involvement of user communities
 - Trigger white papers
 - Give input to National EU workplans
- “Formalisation” of such body?



e-infrastructure...

- Very ambitious concept that deserves a correspondingly ambitious approach
- Current testbeds created high expectations that need to be met
- Initial response is very positive
- Real opportunity to lead worldwide
- Time to move fast



Thanks for your attention!

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