

# European e-Infrastructure

experiences gained and way ahead

**IBERGRID Conference**  
**First Iberian Grid Infrastructure Conference**  
**14<sup>th</sup> May 2007**



**Mário  
Campolargo**



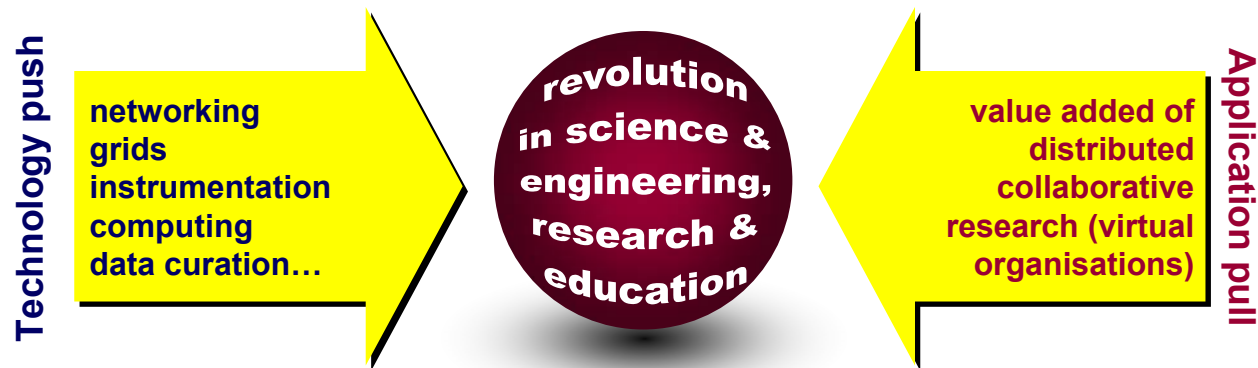
**European Commission - DG INFSO**  
**Head of Unit "GÉANT and e-Infrastructures"**

European Commission  
Information Society and Media

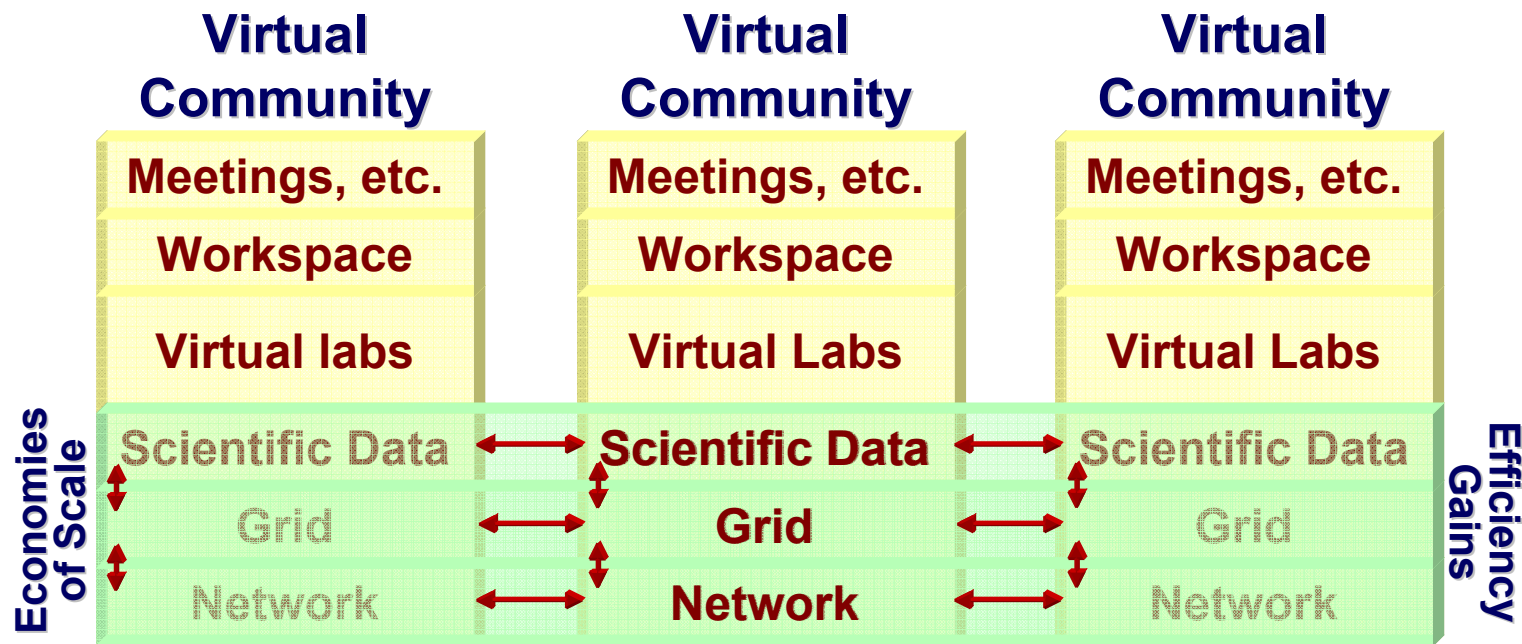


# Embracing a new vision for Science

- **Virtual Research Communities**
- **Improved scientific process... role of simulation**
- **Cross-disciplinarity**
- **Data deluge - Wet-labs versus ICT infrastructures**

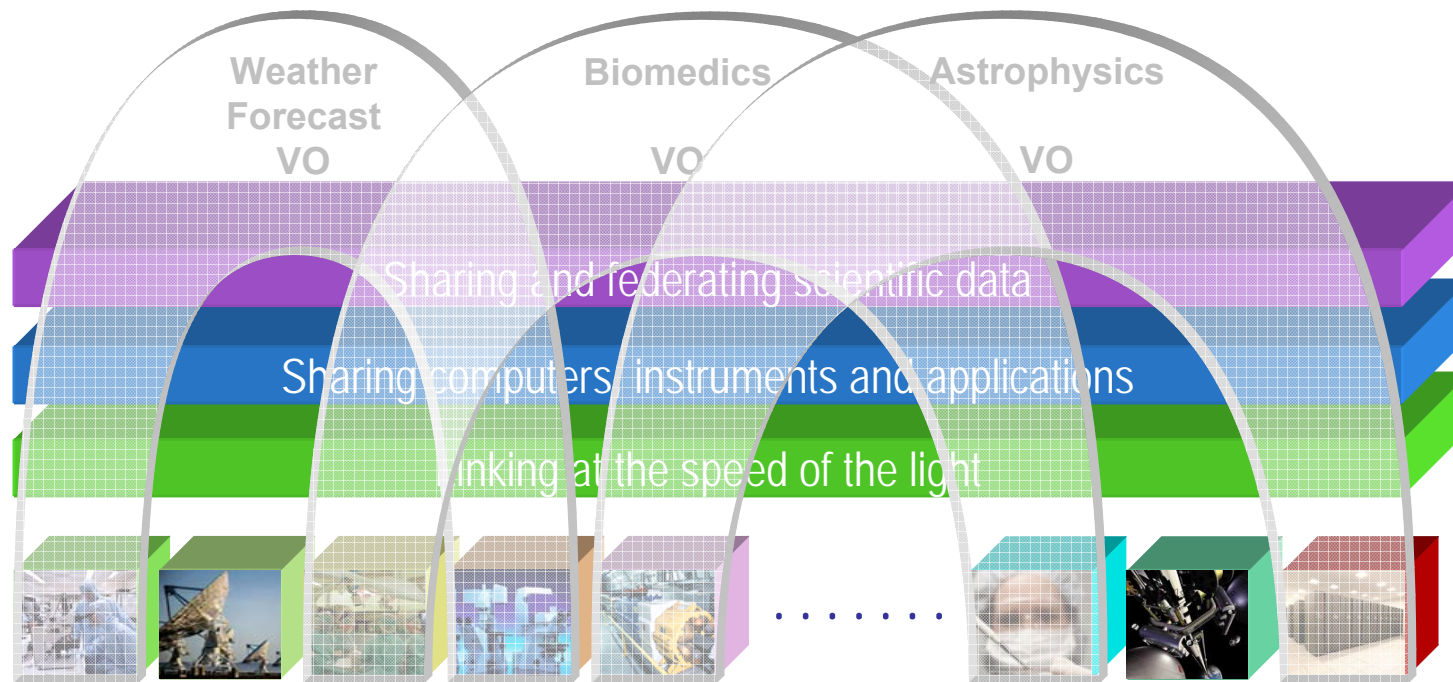


# Global Virtual Research Community

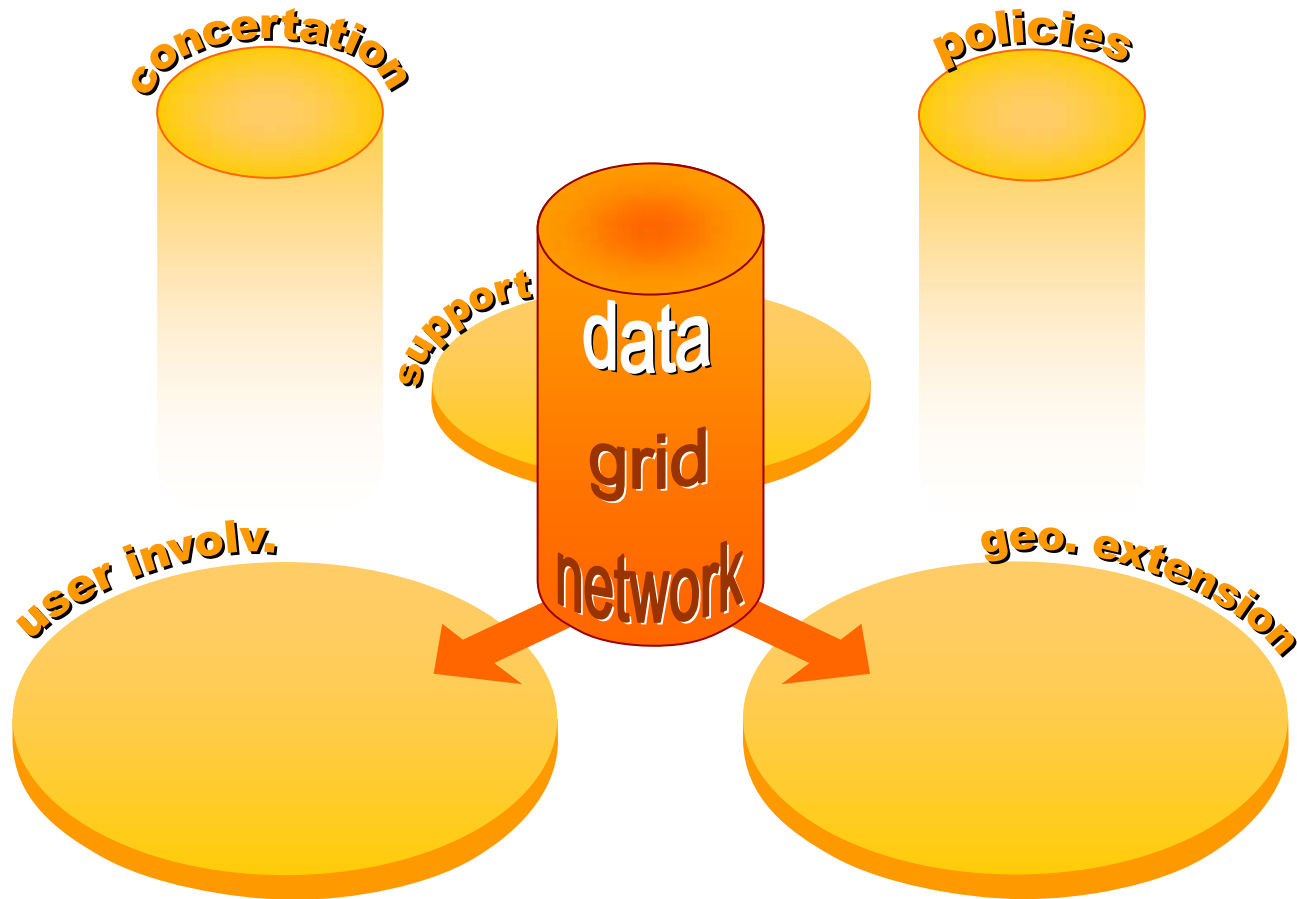


# e-Infrastructures: strategy

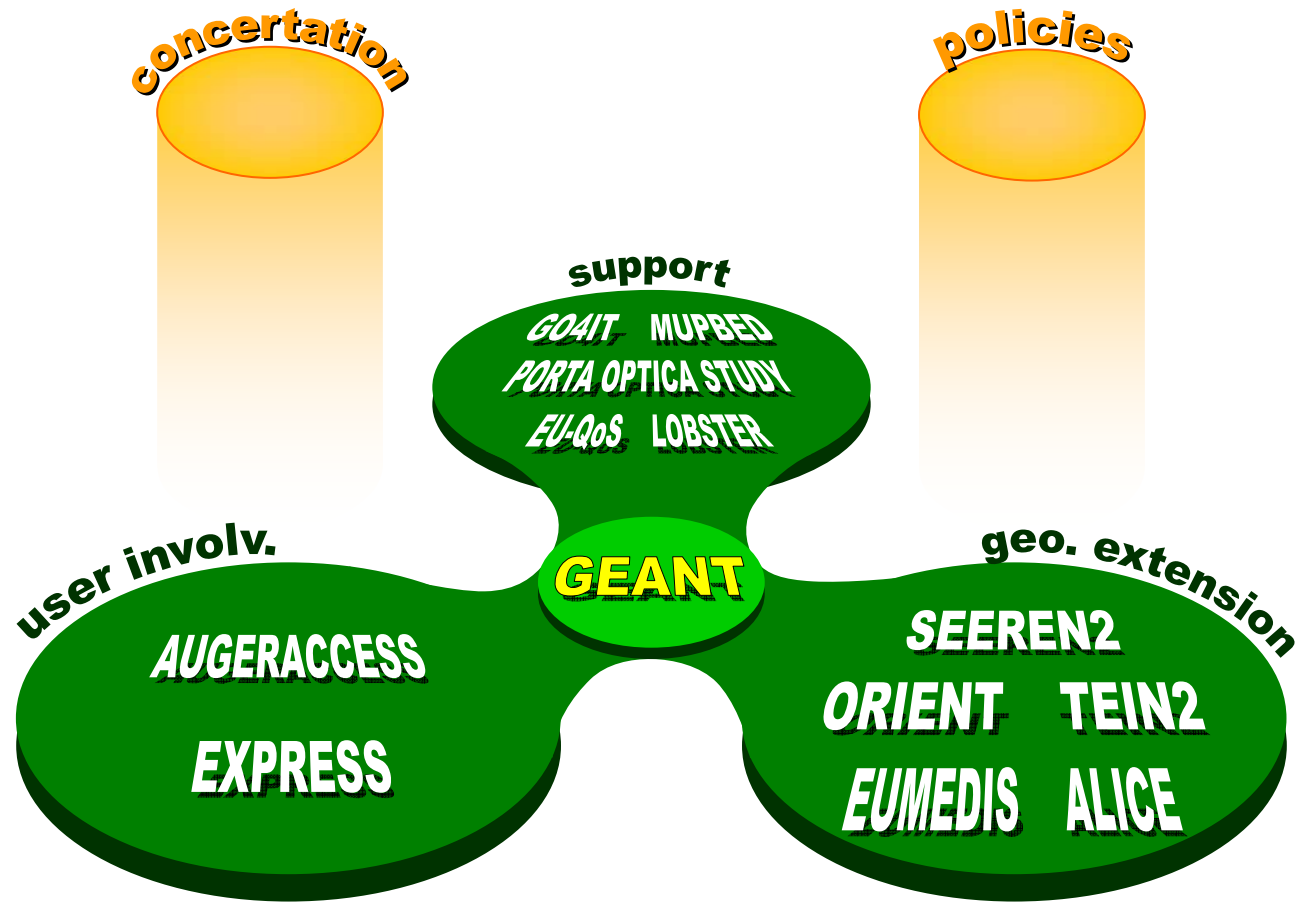
**Connecting the finest minds**  
**Sharing the best scientific resources**  
**Building global virtual communities**



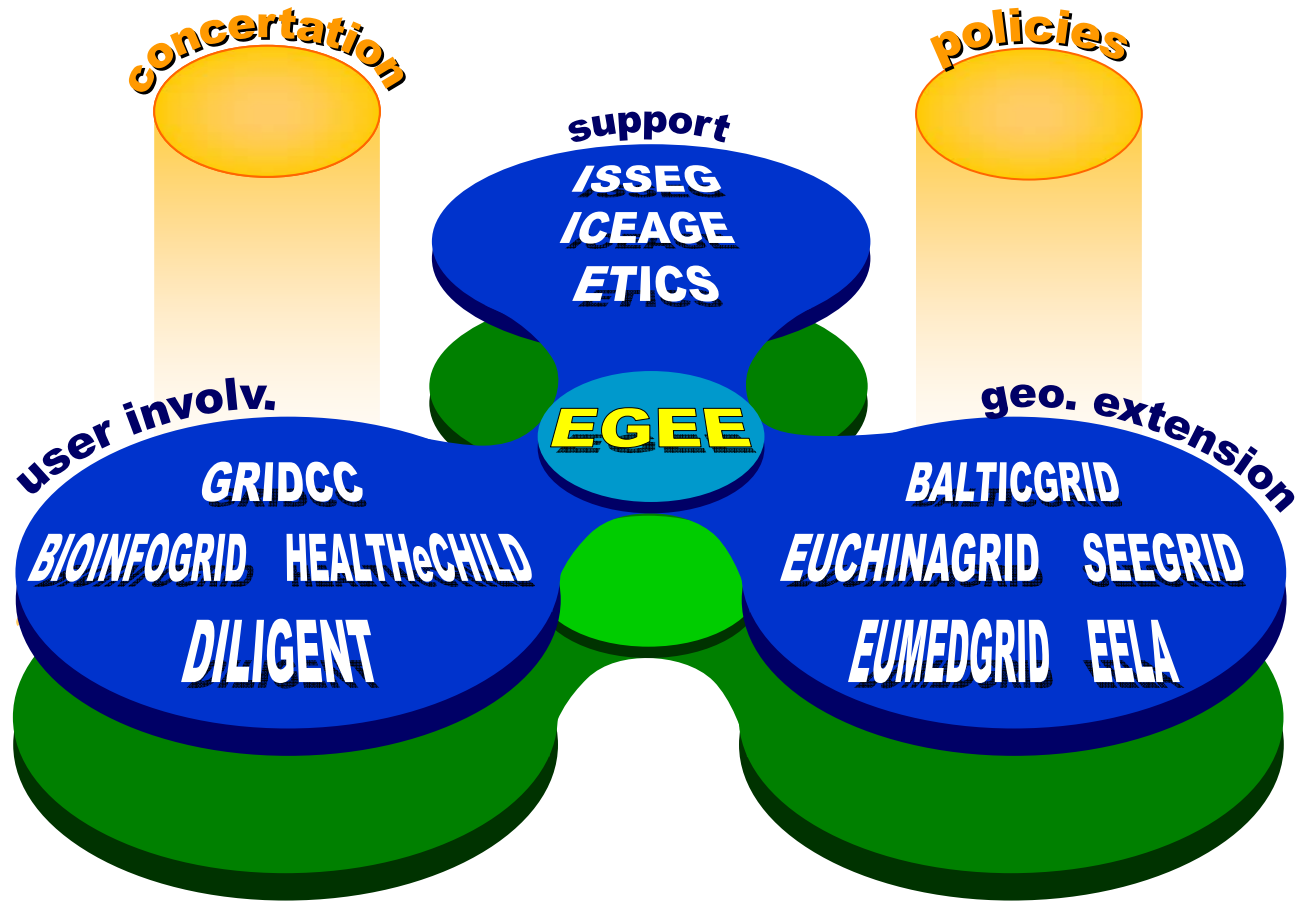
# e-Infrastructures: reference model



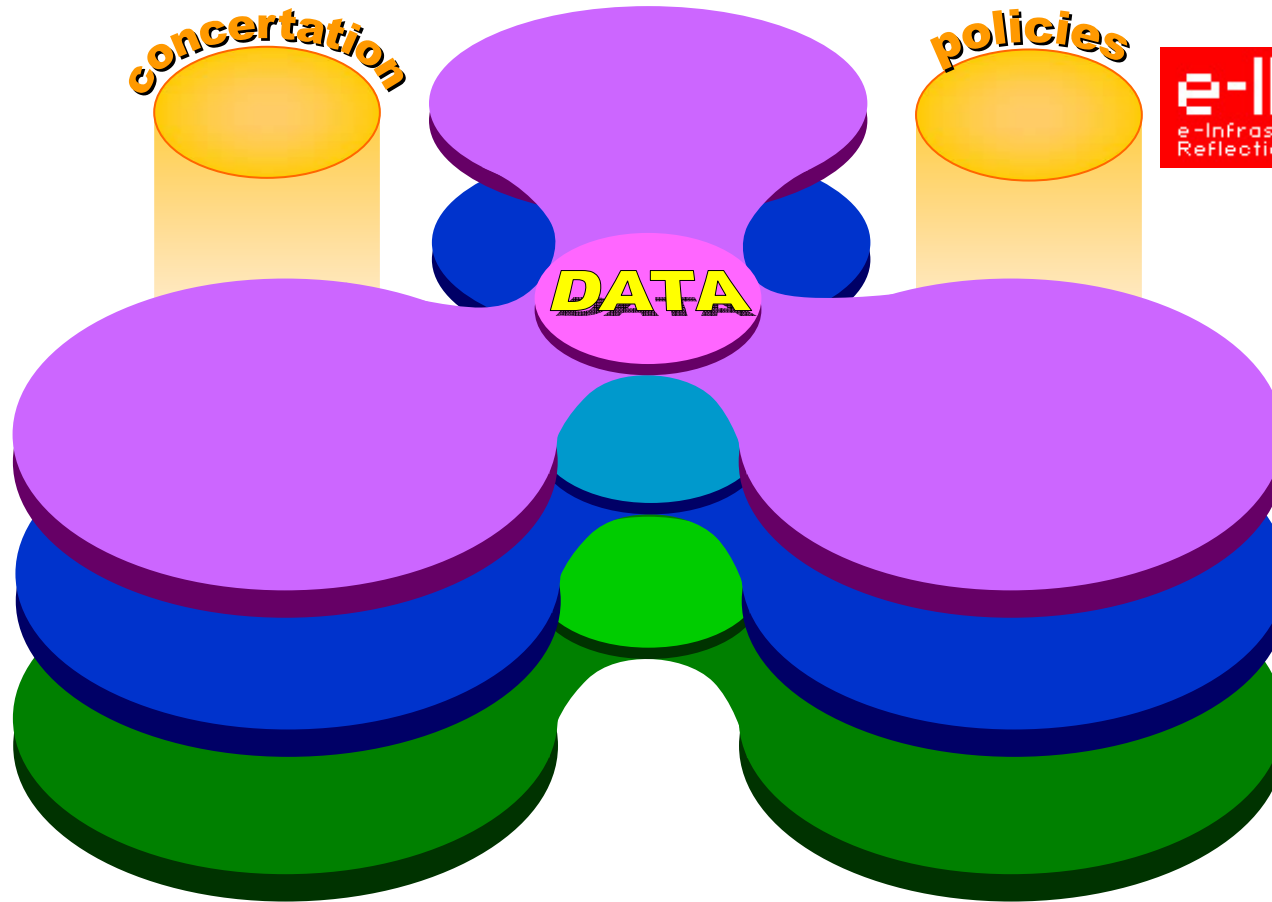
# e-Infrastructures: network layer



# e-Infrastructures: grid layer



# e-Infrastructures: data layer

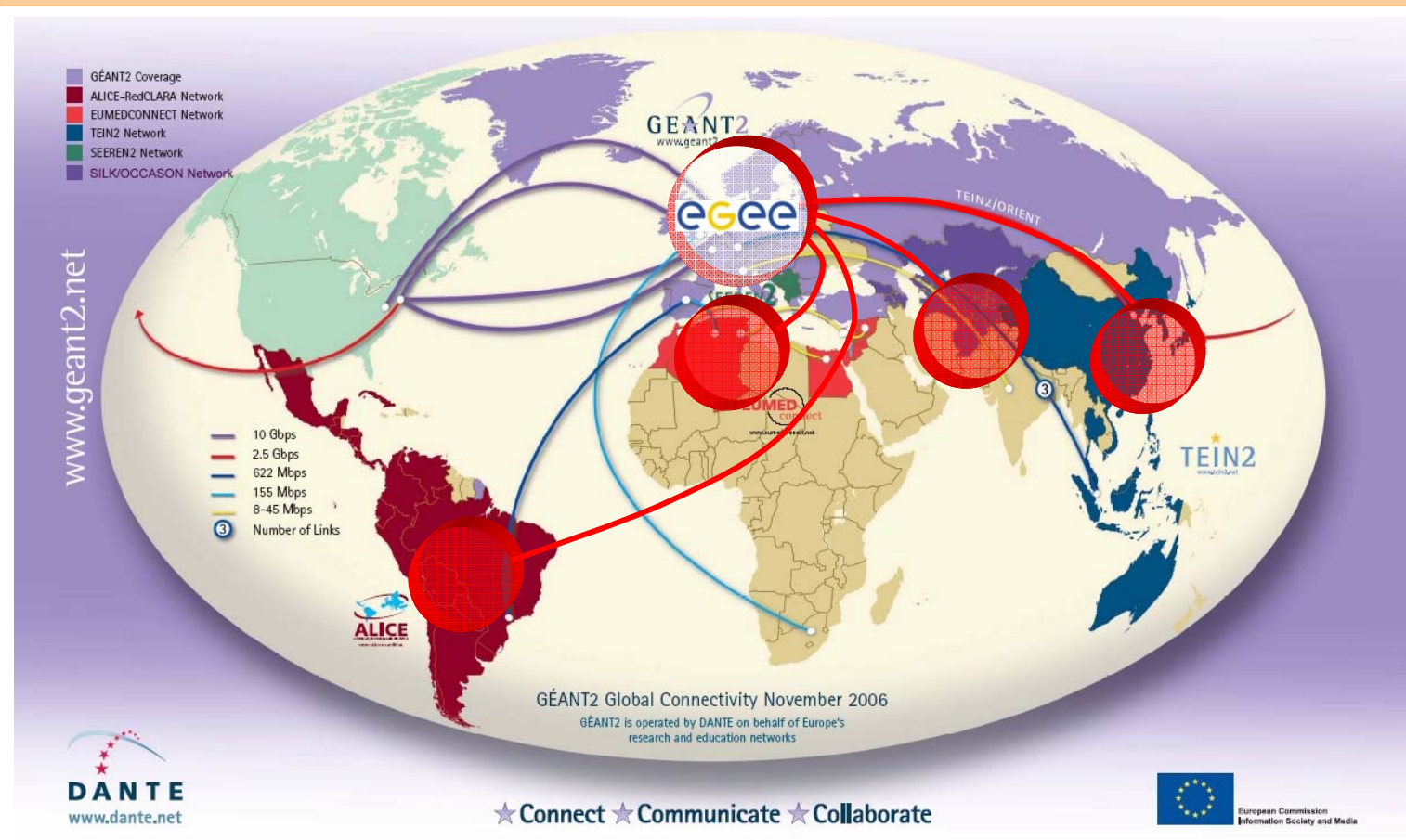


**e-IRG**  
e-Infrastructure  
Reflection Group





# e-Infrastructures: global perspective



# FP7: Research Infrastructures activities

support to existing  
research infrastructures

Integrating activities

ICT based  
e-Infrastructures

2006-2013  $\approx$  600 M€

support to new research  
infrastructures

Design studies

Construction of new RIs  
(preparatory and  
implementation phases)

accompanying measures

European policy, international cooperation,  
emerging needs



# e-Infrastructures: evolutive approach

support to existing  
research infrastructures

Integrating activities

**e-Infrastructures for  
Scientific Communities**

**e-Science Grid  
infrastructures**

support to new research  
infrastructures

Design studies

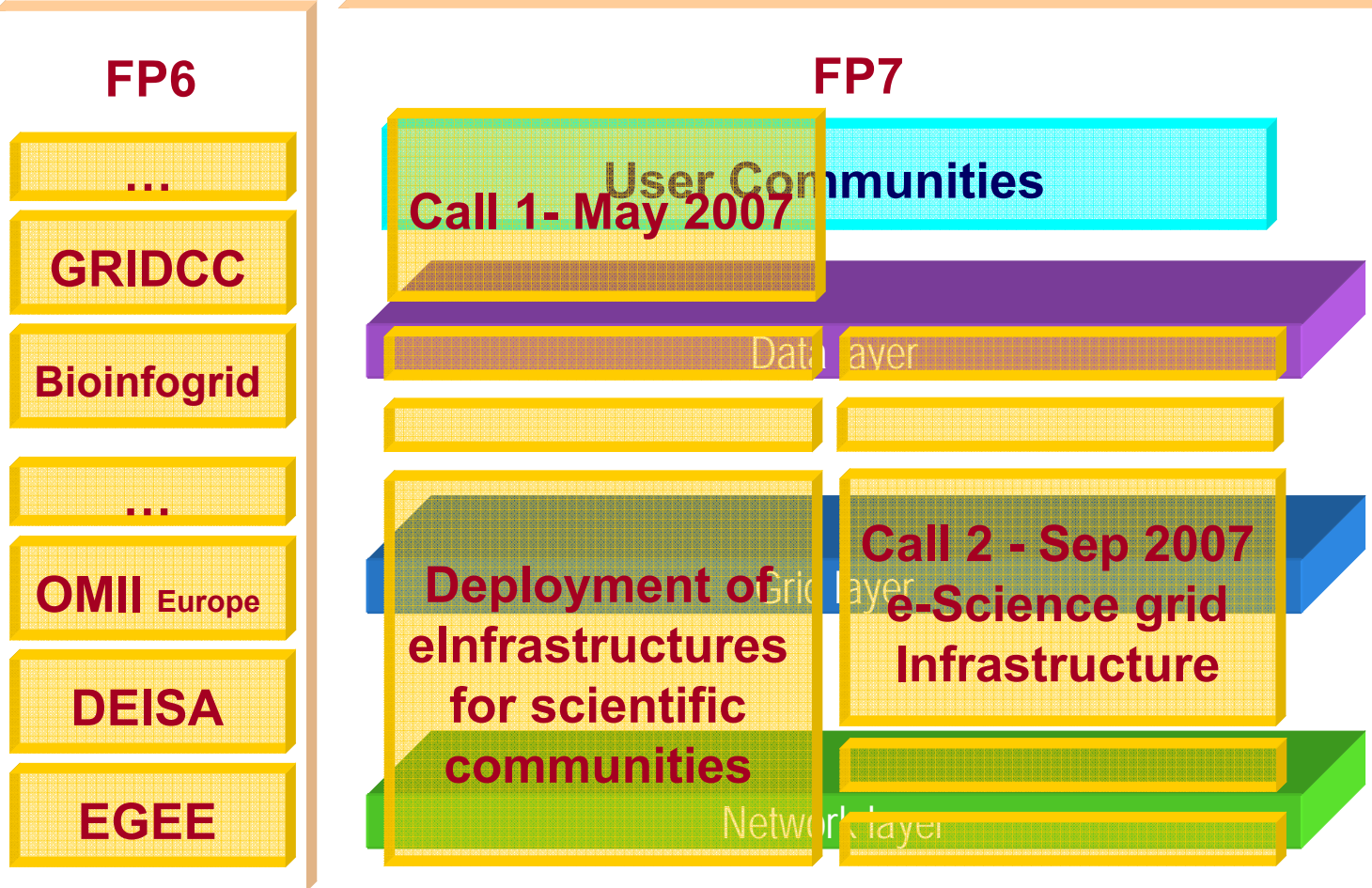
Construction of new RIs  
(preparatory and  
implementation phases)

accompanying measures

European policy, international cooperation,  
emerging needs



# e-Infrastructure: grid core infra. and users



# e-Infrastructure: additional focus on data

support to existing  
research infrastructures

Integrating activities

**Scientific Data  
Infrastructure**

support to new research  
infrastructures

Design studies

Construction of new RIs  
(preparatory and  
implementation phases)

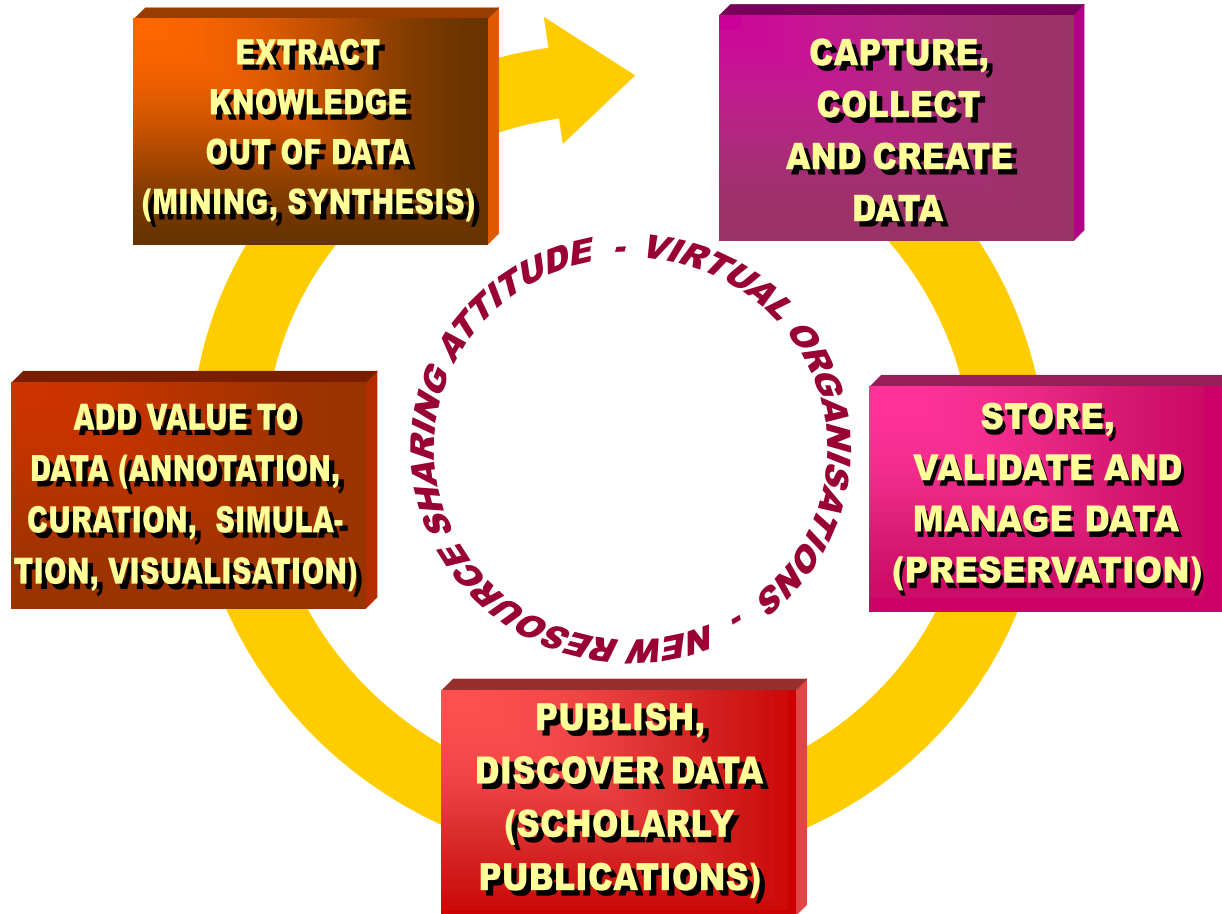
accompanying measures

European policy, international cooperation,  
emerging needs





# e-Infrastructure: additional focus on data



# e-Infrastructure: additional focus on data

**FP6**  
(testbeds)

**FP7**

**User Communities**

**Call 1- May 2007  
Scientific Digital  
Repositories**

**Call in 2008  
Scientific Data  
Infrastructure**

**DILIGENT**

**DRIVER**

Data layer

Grid layer

Network layer



# FP7: Research Infrastructures activities

support to existing  
research infrastructures

Integrating activities

e-Infrastructures for  
Scientific Communities  
e-Science Grid  
infrastructures

support to new research  
infrastructures

Design studies

Construction of new RIs  
(preparatory and  
implementation phases)

accompanying measures

European policy, international cooperation,  
emerging needs





# New Infrastructures: supercomputing

support to existing  
research infrastructures

Integrating activities

e-Infrastructures for  
Scientific Communities  
e-Science Grid  
infrastructures

support to new research  
infrastructures

Design studies

European High-  
Performance Computing  
Service

accompanying measures

European policy, international cooperation,  
emerging needs

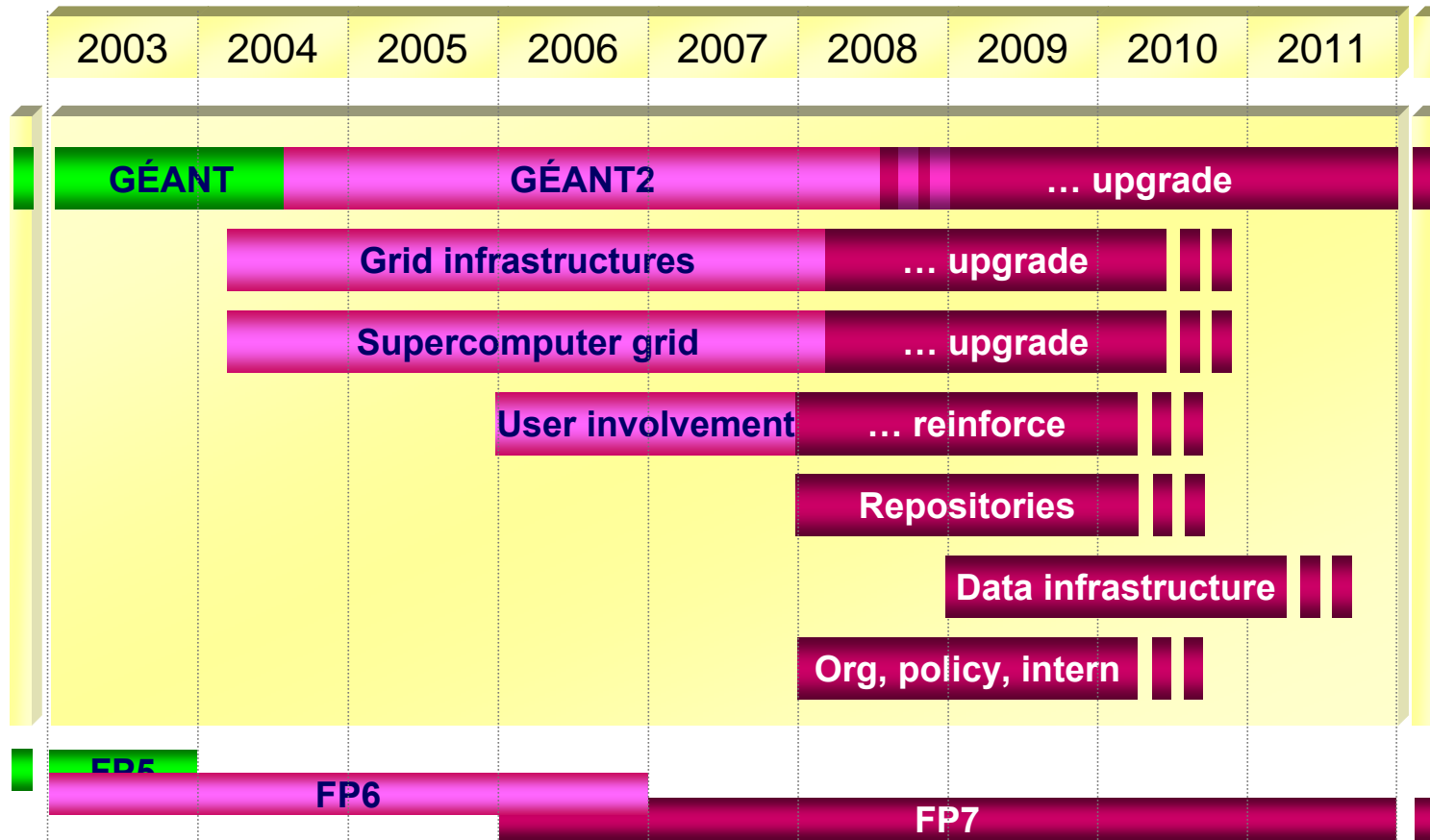


# New Infrastructures: supercomputing

- **key component of a science and industrial research infrastructure**
- **sustainable eco-system, pyramid shaped, requiring European expertise and services**
- **reaching petaflop level, ... building on a DEISA-like model**
- **consistent investment / upgrade on top of national**
- **supporting different algorithmic processes rather than different scientific disciplines and benefit from complementary research in ICT**



# e-Infrastructures evolving approach



# Further information



**e-Infrastructures: [www.cordis.europa.eu/ist/rn/](http://www.cordis.europa.eu/ist/rn/)**

