e-Infrastructure experiences in regional integration

Prague, 25 March 2009

Konstantinos GLINOS
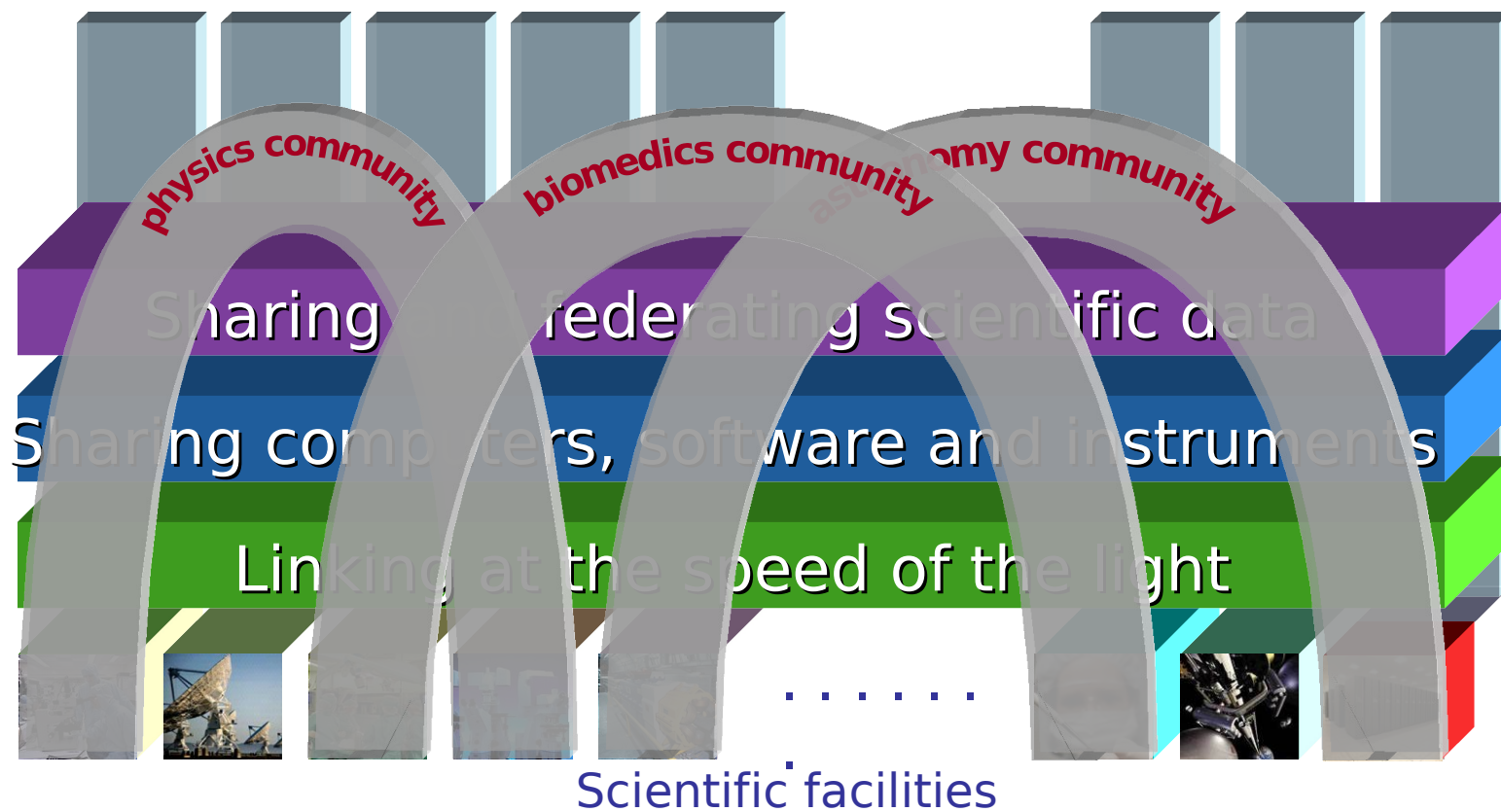European Commission - DG INFSO
GÉANT & e-Infrastructures

e-infrastructure
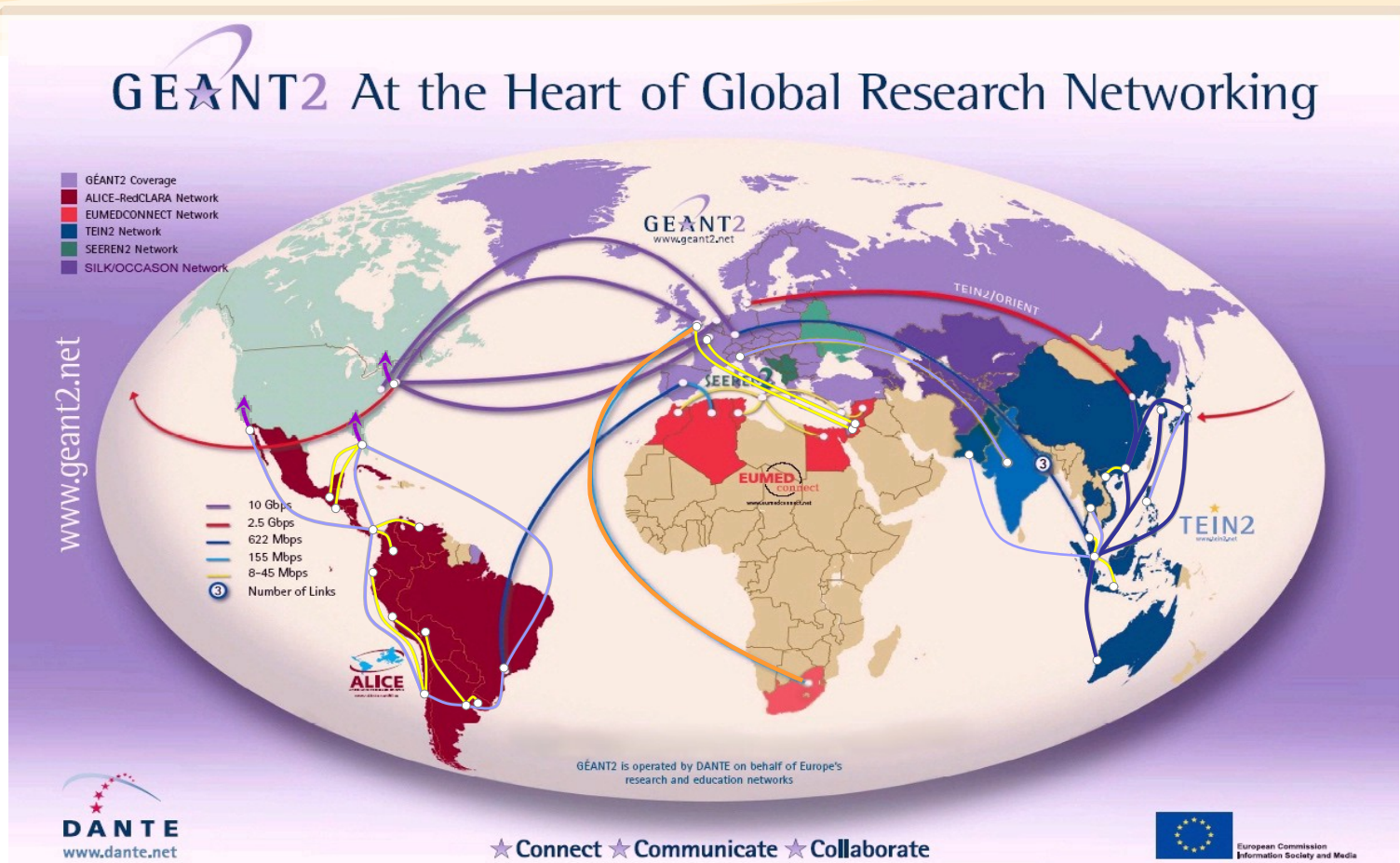
European Commission
Information Society and Media

ICT infrastructures for Science

physics community

biomedics community

astronomy community

Sharing and federating scientific data

Sharing computers, software and instruments

Linking at the speed of the light

. . . . . .

Scientific facilities

e-infrastructure

Regional dimension of GÉANT

EGEE: Tackling Global Challenges

Scheduled = 17356
Running = 18359

Astrophysics and astroparticle physics
Biomedical and bio-informatics
Computational chemistry
Computational sciences
High Energy Physics
Disaster recovery
Digital Libraries
Earth sciences
Geophysics
Finance
Fusion

- >300 sites
- >100 000 CPUs, 25 PByte of storage
- ~300 000 jobs successfully completed per day
- 200 Virtual Organisations
- >16000 registered users, representing 1000s of scientists

08.54.05 UTC

GridPP
UK Computing for Particle Physics

e-infrastructure

European Commission
Information Society and Media
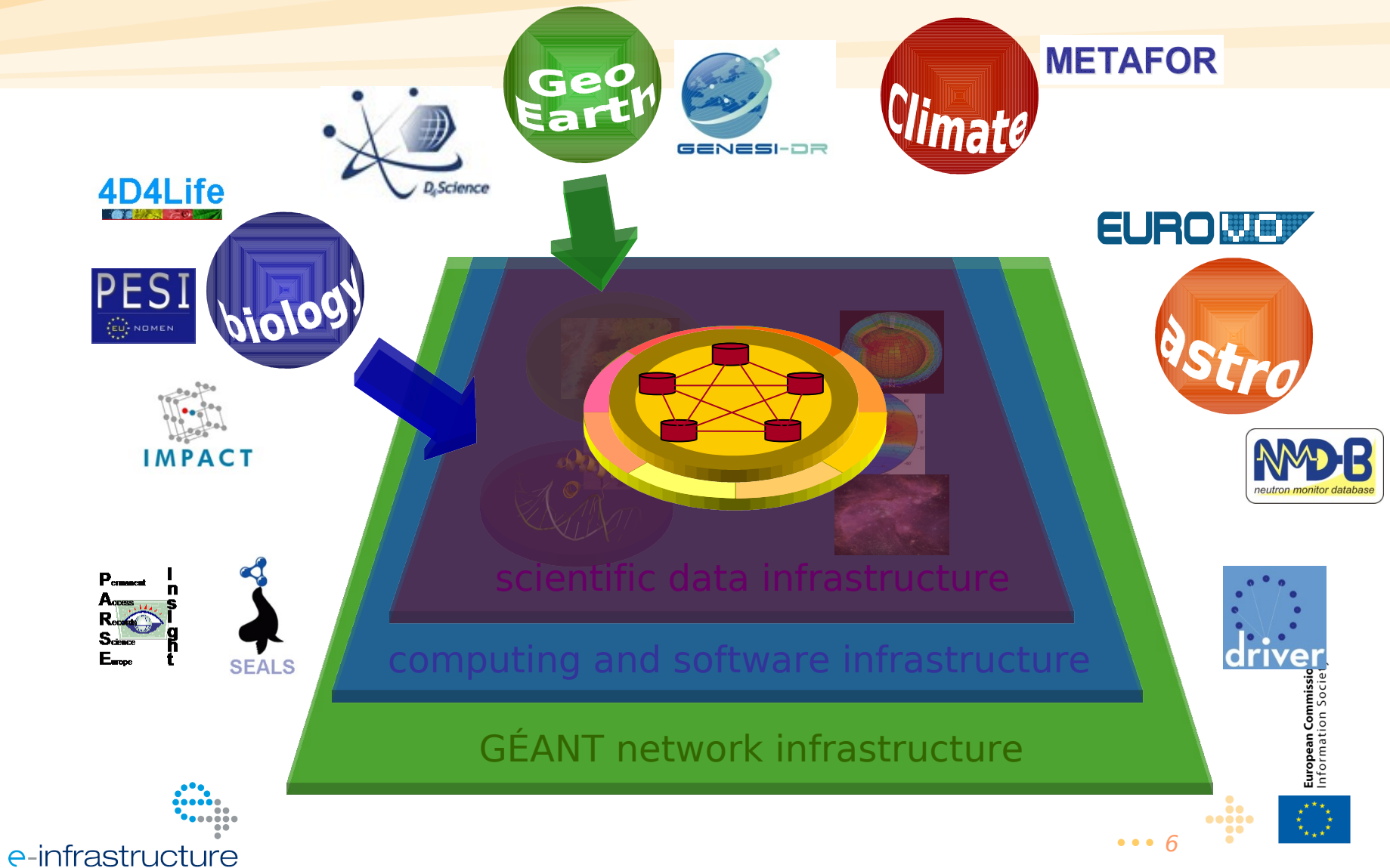
4

Regional grid projects

Scientific Data Infrastructure

ERA Expert Group on e-Infrastructures

'The vision for a future European Research Area and a coherent RI policy must include the deployment of e-infrastructures, as they are the integrating mechanism, the glue between regions and different scientific disciplines.'

Developing World-class Research Infrastructures for the European Research Area (ERA), Report of the ERA Expert Group, 2008

e-infrastructure

European Commission
Information Society and Media

e-Infrastructures in ERA context

- Remove distance as a barrier

- Enable sharing of recourses & knowledge

- Facilitate working together

- Intra-regional integration

- Inter-regional integration

- Emergence of GVRC

e-Infrastructures as a key enabler

e-infrastructure

Success Baltic story: BalticGrid

- Set up of grid infrastructure in Baltic region

- Integration of three Baltic countries into the grid landscape (Lithuania, Latvia and Estonia)

- Extension towards Belarus

- Engagement of new user communities (linguistic research, Baltic Sea environmental research...)
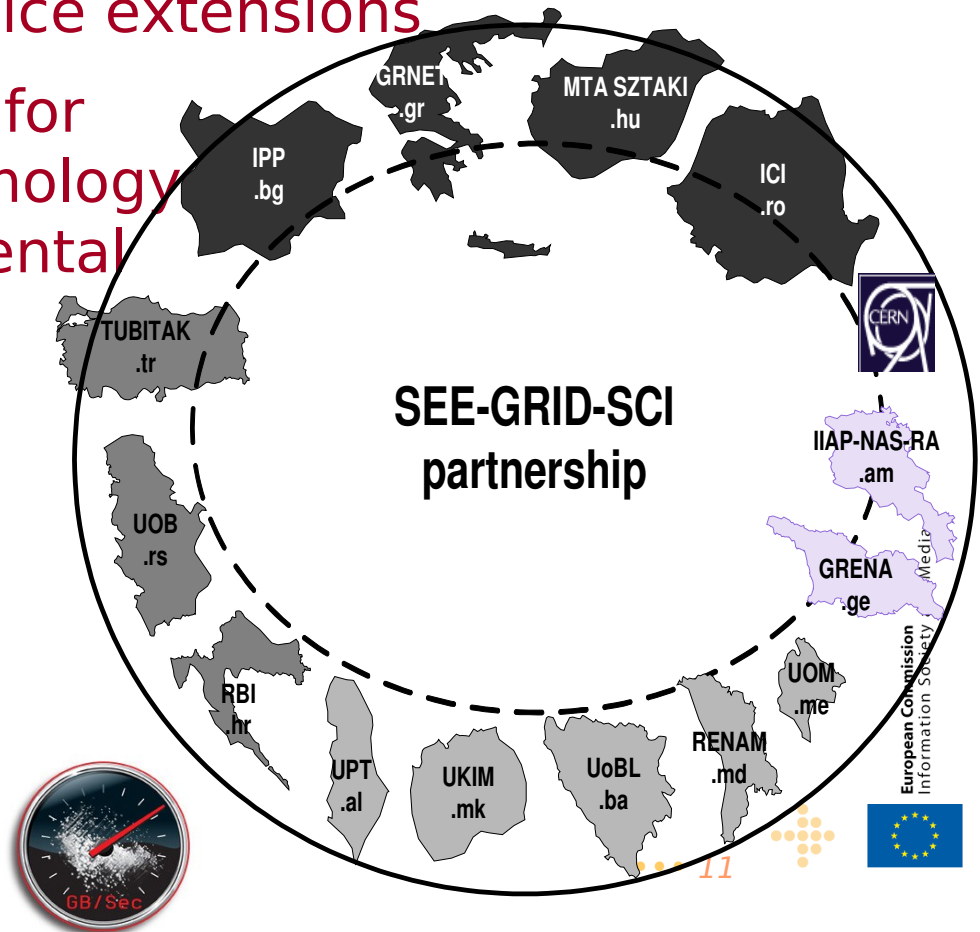

e-infrastructure

Success Balkan story: SEEREN

- Established the SEE segment of the pan-European GÉANT network

- Connected the research and scientific communities in the region

- Contributed to the definition of the regional and national vision

- Greek Foreign Ministry will continue infrastructure funding over the next 15 years
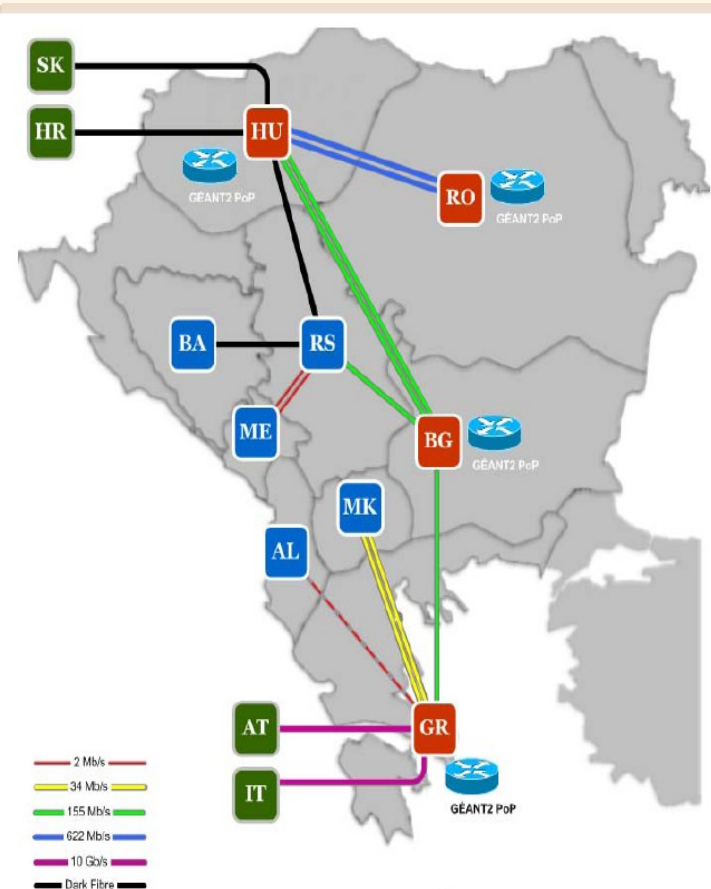
SEE-GRID

- Infrastructure complementing EGEE

- Engaging regional user communities and providing application-specific service extensions

- Providing infrastructure for new communities (seismology, meteorology, environmental protection)

- Towards long-term sustainability and inclusion in the European Grid Initiative

SEE-GRID-SCI partnership

GRNET .gr · MTA SZTAKI .hu · IPP .bg · ICI .ro · TUBITAK .tr · CERN · IIAP-NAS-RA .am · UOB .rs · GRENA .ge · RBI .hr · UOM .me · UPT .al · UKIM .mk · UoBL .ba · RENAM .md

e-infrastructure

European Commission
Information Society Media

SEERA-EI
way towards common regional vision

- ERA-NET project to start in first half of 2009

- Collaboration of regional programme managers towards common e-Infrastructure vision and strategy

- Setting the framework for a common regional agenda

- Reduction of fragmentation of national programmes

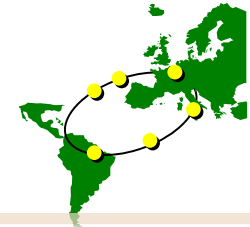- Creation of a harmonised approach to national-level initiatives

European Commission
Information Society and Media

Global perspective

BBSI

South Caucasus Regional network and link to GÉANT, integrating scientific potential in the region
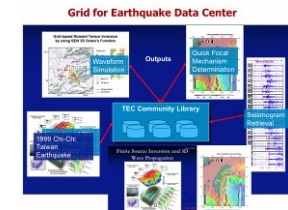
ee La

High capacity, production-quality, scalable e-Science grid facility for Europe and Latin American

EUAsiaGrid

Disseminate EGEE middleware in Asia, support scientific applications and creation of VOs

e-infrastructure

European Commission
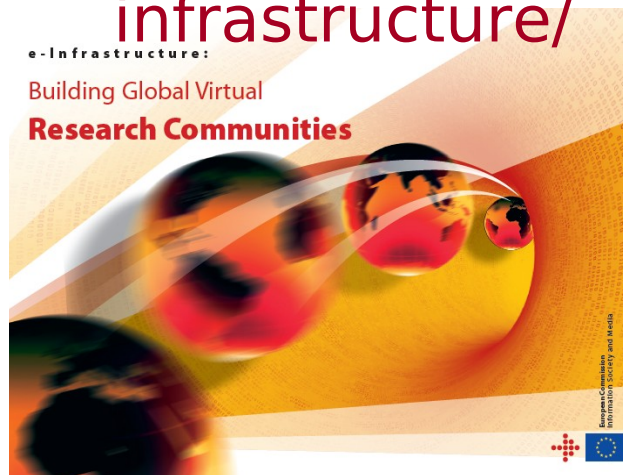Information Society and Media

Added value of e-Infrastructures for regional integration

- A tool for collaboration and sharing

    – irrespective of location and distance

- Joining forces to face today's challenges

    – regional and global

- Bridging the digital divide

- Fighting the "brain-drain"

further information

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

Konstantinos.Glinos@ec.europa.eu