e-INFRASTRUCTURE: THE POLICY CONTEXT

The Lisbon Strategy aims to build "the most competitive and dynamic knowledge-based economy in the world" in response to today's economic and social challenges. The European Research Area (ERA) is a key component of the Lisbon Strategy because it boosts research infrastructures, promotes industry investment in European research and contributes to the creation of sustainable growth and jobs.

e-Infrastructure is one of the central pillars of the ERA and supports the i2010 initiative. This is the EU policy framework for the information society and media. It fosters the use of information and communications technology (ICT) for research through:

- building a common European information space: e-Infrastructures know no borders, allow researchers to co-operate, facilitate flow of information across Europe and beyond, and are easily accessible;
- strengthening ICT research and its deployment in Europe: as early adopters of new ICT developments, e-Infrastructures are validating ICT research results and paving the way for further innovation. They are an excellent example of how ICT can be used to make science more effective;
- promoting an inclusive information society: e-Infrastructures make science accessible to all.by facilitating access to scientific discoveries and increasing international co-operation.

e-Infrastructure is rooted in the Capacities objective of the EU's Seventh Research Framework Programme (FP7) and inspired by the policy work carried out in the context of European Strategy Forum on Research Infrastructures (ESFRI), e-Infrastructures Reflection Group (e-IRG) and the ERA.

BUILDING GLOBAL VIRTUAL RESEARCH COMMUNITIES

Practical information:

- http://cordis.europa.eu/fp7/ict/e-infrastructure/home_en.html
- http://ec.europa.eu/dgs/information_society/index_en.htm

KK-81-08-212-EN-D

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e-infrastructure

European Commission
Information Society and Media

e-INFRASTRUCTURE:

GÉANT

Linking the **ideas** at the **speed of light**

European Commission
Information Society and Media

e-INFRASTRUCTURE IS CHANGING THE WAY SCIENCE IS CARRIED OUT!

WHAT IS E-INFRASTRUCTURE?

- a combination of ICT-based resources and associated tools and services such as networks, computing systems and scientific data repositories
- a new way of collaborating and sharing resources independently of the researcher's geographical location
- a key enabler for virtual global research communities
- a driver for social and economic well-being in Europe

E-INFRASTRUCTURE BY THEME

- Linking ideas at the speed of light: **GÉANT**
- Sharing the best scientific resources: **e-Science grids**
- Accessing knowledge: **scientific data**
- Designing future facilities: **novel e-Infrastructure**
- Innovating in the scientific process: **global virtual research communities**

CONNECTING THE FINEST MINDS

Do you think that we can bring together the world's best minds in various research fields without changing their location?

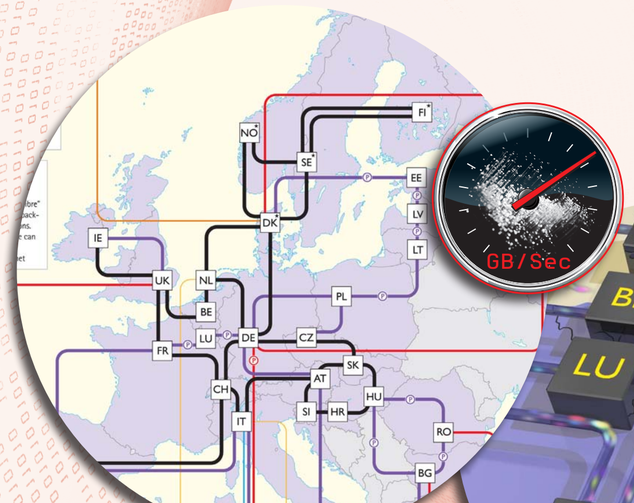
GÉANT provides a positive answer.

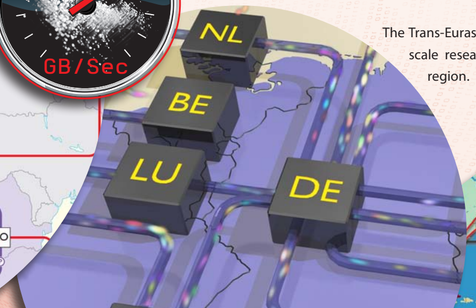
GÉANT is the world's largest high-speed communication network dedicated to research and education.

GÉANT removes the physical barriers and gives more than three million researchers and students the opportunity to work effectively together as a global virtual research community.
GÉANT makes "big science" possible. At the same time, by involving all students from the linked research and education institutions in the scientific process, GÉANT favours the discovery to emerge from unexpected sources.

CONNECTING EUROPE

GÉANT connects over 3 500 research and education institutions in more than 34 countries through 30 National and Regional Research and Education Networks comprising more than 50 000 km of optical fibre links.
GÉANT offers an unprecedented geographical coverage, high bandwidth and innovative hybrid networking technology.





CONNECTING WORLD REGIONS

Projects enabling other world regions to collaborate with the European researchers

BSI (the Black Sea Interconnection) bridges the digital divide between the South Caucasus countries (Armenia, Azerbaijan and Georgia) and Europe

EUMEDCONNECT established and operates the first IP (Internet Protocol)-based network for research and education across the Mediterranean region

SEEREN2 provides the next generation of the Southeast European segment of GÉANT

ALICE (America Latina Interconectada Con Europa) created the RedCLARA network, which provides the research network infrastructure for the Latin American region

OCCASION provides vital support to the NATO-funded SILK project connecting Central Asia and the Caucasus to GÉANT

ORIENT connects the research and education communities of China to their partners in Europe

The Trans-Eurasia Information Network **TEIN3** extends the large-scale research and education network for the Asia-Pacific region.

CONNECTING PROJECTS

Projects benefiting directly from the connectivity and services made available by GÉANT and regional networking initiatives

Dedicated high-speed networks provided by GÉANT are linking Europe's leading supercomputers (**DEISA**), as well as radio astronomy sites all over the world (**EXPReS**).

Connectivity, authentication and authorisation services are provided to European and global grid infrastructure activities (**EGEE** and other).

Access to observation sites in Latin-America is provided to the **AUGER-ACCESS** and **EVALSO** projects serving European cosmic ray researchers and astronomers respectively.

A state-of-the-art test-bed allowing for disruptive testing of future Internet technologies is provided for **FEDERICA**.

Being fully IPv6 enabled GÉANT inspires projects supporting the further deployment of IPv6 (**6DEPLOY** and **6CHOICE**).

Through its world-wide reach GÉANT enables large-scale multi-site video conferencing services to the Research and Education communities (**GLOBAL**).

Support
BELIEF-II coordinates effective knowledge flow between e-Infrastructure projects and their users. Its Digital Library holds various data of e-Infrastructures projects.