

GÉANT2

Connecting the finest minds around the globe



The pan-European GÉANT2 is the world's most advanced international research and education network. In Europe it links over 30 million students and scientists providing them with ultra high-speed Internet connections for their research and education purposes. GÉANT2's fibre optic links have the objective of providing this connectivity. It provides links to research and education networks in the Americas, Africa, Middle East, Central and South East Asia.

Global Initiatives at a Glance:

South-East Europe and the Balkans (SEEREN2) www.seeren.org

Black Sea Interconnection (BSI)
www.blacksea-net.org

Mediterranean (EUMEDCONNECT)
www.eumedconnect.net

North America – USA and Canada (Trans-Atlantic partnership)
www.global.dante.net/server/show/nav.1414

Latin-America (ALICE)
www.alice.dante.net

South-East Asia: Trans-Eurasia Information Network (TEIN)
www.tein2.net

China via Siberia (ORIENT)
www.dante.net/orient

Central Asia (OCCASION)
www.ist-occasion.org

India
www.global.dante.net/server/show/nav.1416

Southern Africa
www.global.dante.net/server/show/nav.1410

Motivation

Europe is home to the largest and most diverse group of academic and scientific researchers in the world.

These researchers collectively produce *peta-bytes of important data every month. This data is crucial to academic research, and needs to be shared between researchers in different countries and continents.

GÉANT2 is the provider of pan-European connectivity for European research and education communities. It has also established intercontinental connectivity to other regions in the world.

Fighting the Digital Divide in South-East Europe

GÉANT2 is reaching out to less developed European regions in an attempt to reduce the Digital Divide.

For instance, GÉANT2 has long been a supporter of the South East European Research and Education Network (SEEREN). In 2004, this support took the crucial form of assuming responsibility for SEEREN's connectivity contracts during the months between the official end of SEEREN and the start of SEEREN2, in order to ensure that connectivity within the region remained uninterrupted.

*from Greek *pente* meaning 5, peta = 1000^5 , 10^{15}

Linking researchers across the world

e-Infrastructures are the key drivers of the emerging global virtual research communities, thus enabling scientific excellence and ultimately, economic and social wellbeing in Europe.

As part of its International Cooperation Programme, the European Commission supports similar types of networks across the world and their interconnection. The objective is to allow non-European research communities to participate effectively in joint research and educational activities with European partners.

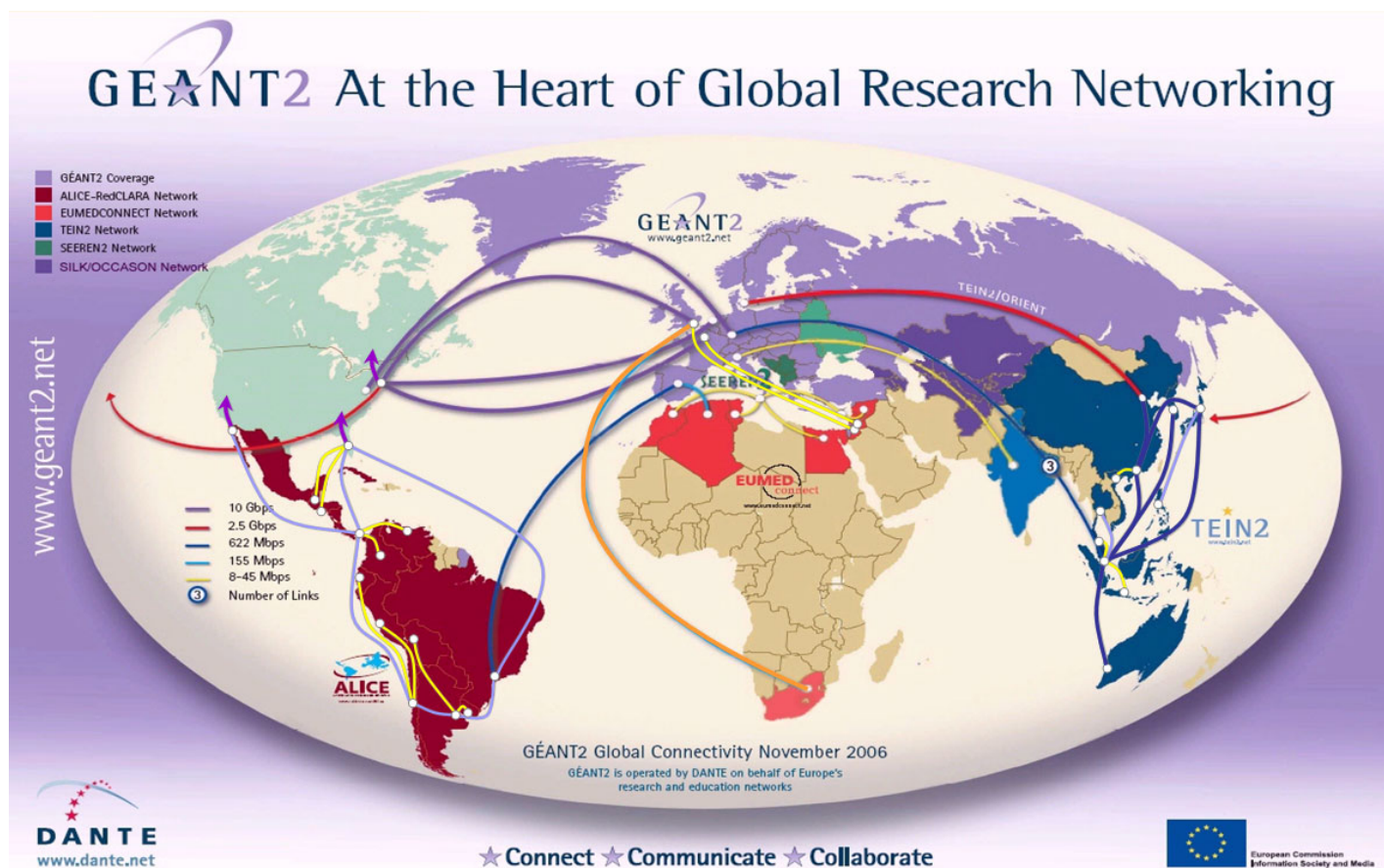
The map below gives an overview of the international connectivity for research and education that is supported by the European Commission. Some €15 million, mainly from

the EuropeAid Cooperation Office, is used every year to maintain and upgrade this global communication infrastructure (see list of global connectivity initiatives on front page).

GÉANT2 is the foundation for e-Infrastructures

The need to perform computer simulations, accessing data, stored somewhere on the globe in on-line repositories of scientific information, is exploding. Today scientists model and simulate far more complex and sophisticated phenomena (e.g. analyse climate change), some of which could not be experimented in the real world (e.g. pandemics, predictions of tsunami effects).

GEANT2 is the foundation for ICT-enabled research infrastructures (so called e-Infrastructures), providing the possibility to collaborate on research independent of geographical location. As a facilitator of distributed research collaborations, e-Infrastructures create increased scientific productivity.



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