

ICT-Infrastructures: a European achievement for a global sustainable future

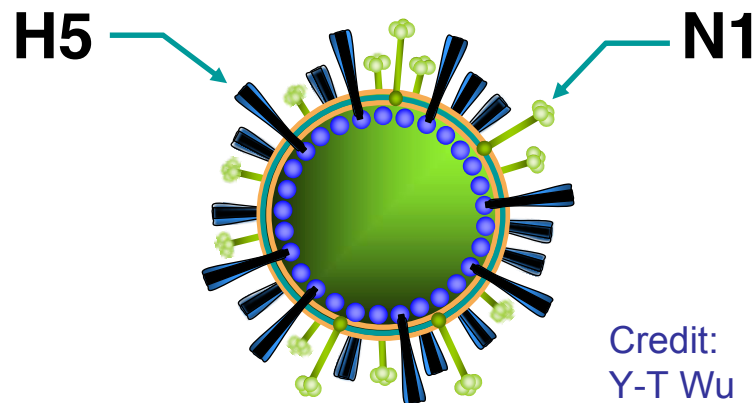
ICT for a Global Sustainable Future

Brussels, January 22-23, 2009

Press article on e-Infrastructure

EGEE Grid attacks Avian Flu

During April 2006, a collaboration of Asian and EU laboratories has analysed 300,000 possible drug components against the avian flu virus H5N1 using the EGEE Grid infrastructure (for the docking of 300,000 compounds against 8 different target structures of Influenza A neuraminidases, 2000 computers were used during 4 weeks – the equivalent of 100 years on a single computer)



Credit:
Y-T Wu

ICT infrastructures for Science

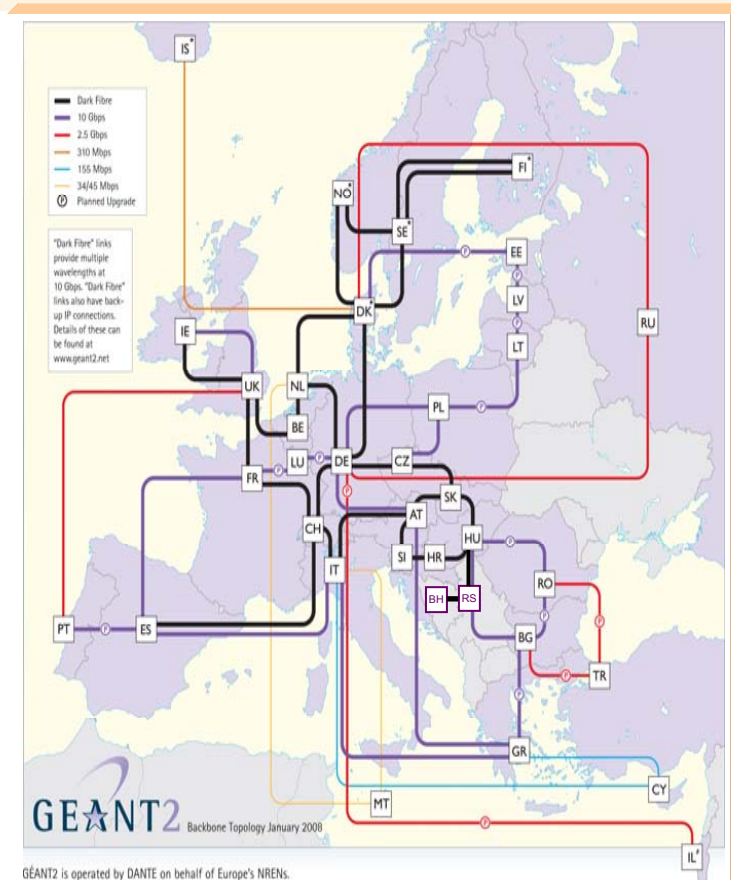


Involving Scientific Communities

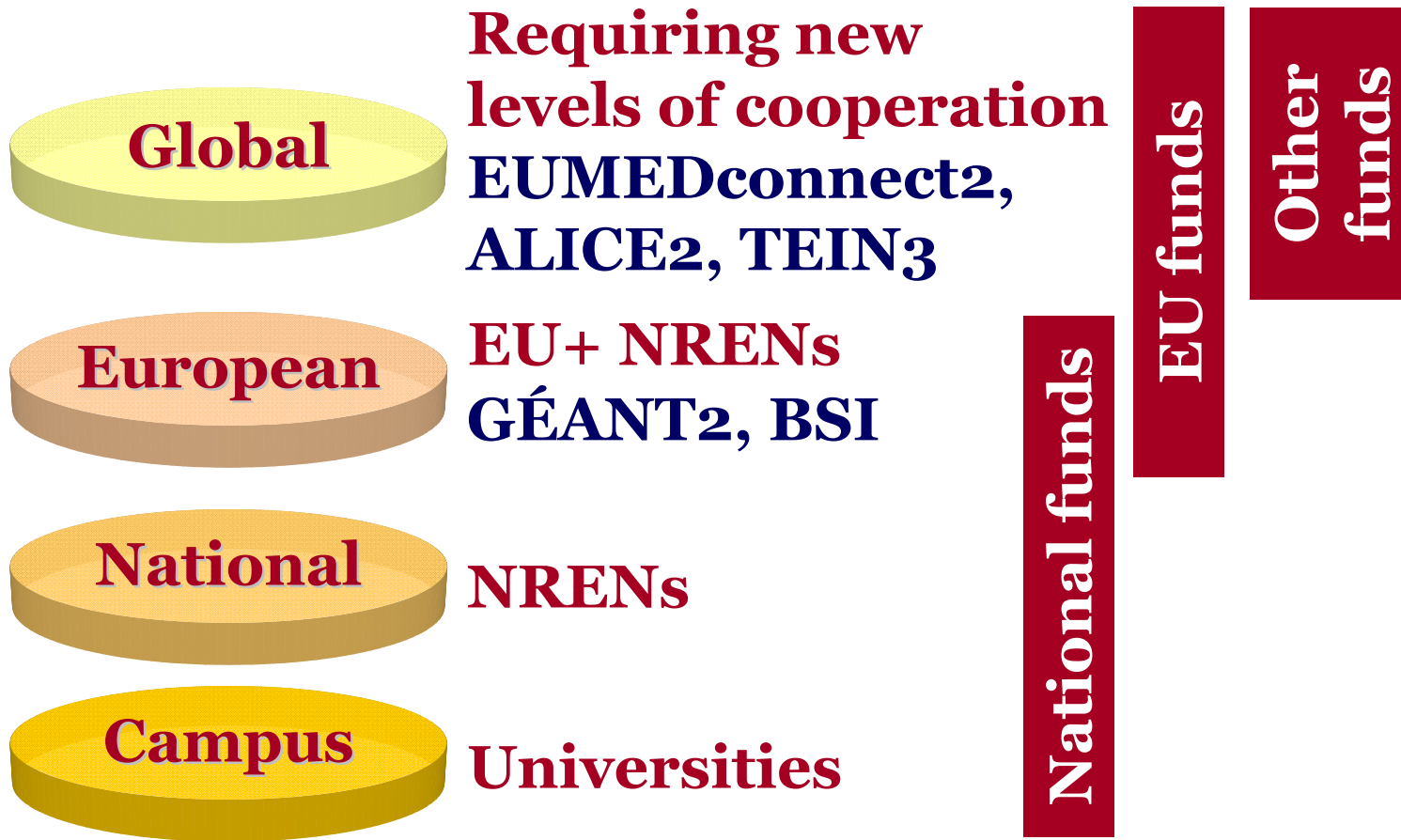


GÉANT: Connecting Europe

- Pan-European coverage
40+ countries
4000 universities
30+ million students
- Costs: €200 M over 4.5 years
EC Funding: €93 M
- Co-funded Links with
US, Japan, India, China,
South Africa

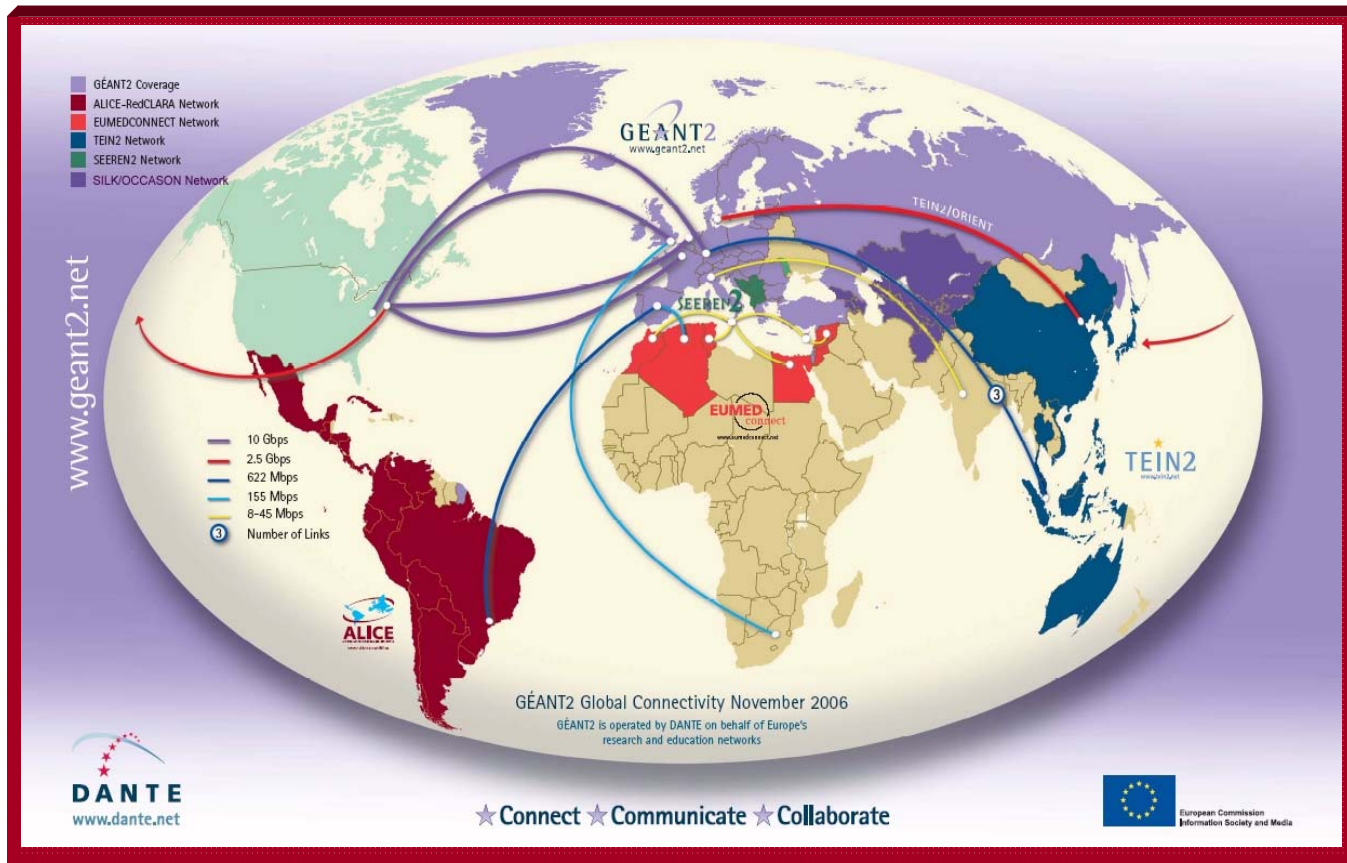


GÉANT: A European Model



GÉANT: Connecting the World

Bridging the digital divide in Science



GEANT2

EUMED connect

ALICE
America Latina Interconectada Con Europa

TEIN2

European Commission
Information Society and Media



Conclusions

- Researchers will face unprecedented levels of complexity to address scientific Grand Challenges with global societal impacts
- Need to bring together Knowledge from multidisciplinary fields
- Need for collaboration among researchers from all over the world
- Stop brain-drain, bridge the digital divide

-> The way Science is carried out will radically change (open, cross-border, ICT-based) = eScience

-> *EC and Member States will accelerate deployment of world-class eInfrastructures (GEANT, Grids, Data, HPC, research communities) to increase capacity and functionality.*

Connecting
the finest
minds

... Linking ideas at
the speed of light

Sharing the
best scientific
resources

... Harnessing
the unlimited power
of computers,
instruments and data

Building virtual
global research
communities

... Innovating the
scientific process



e-infrastructure

Thank you!



géant | grids | scientific data | supercomputing

