

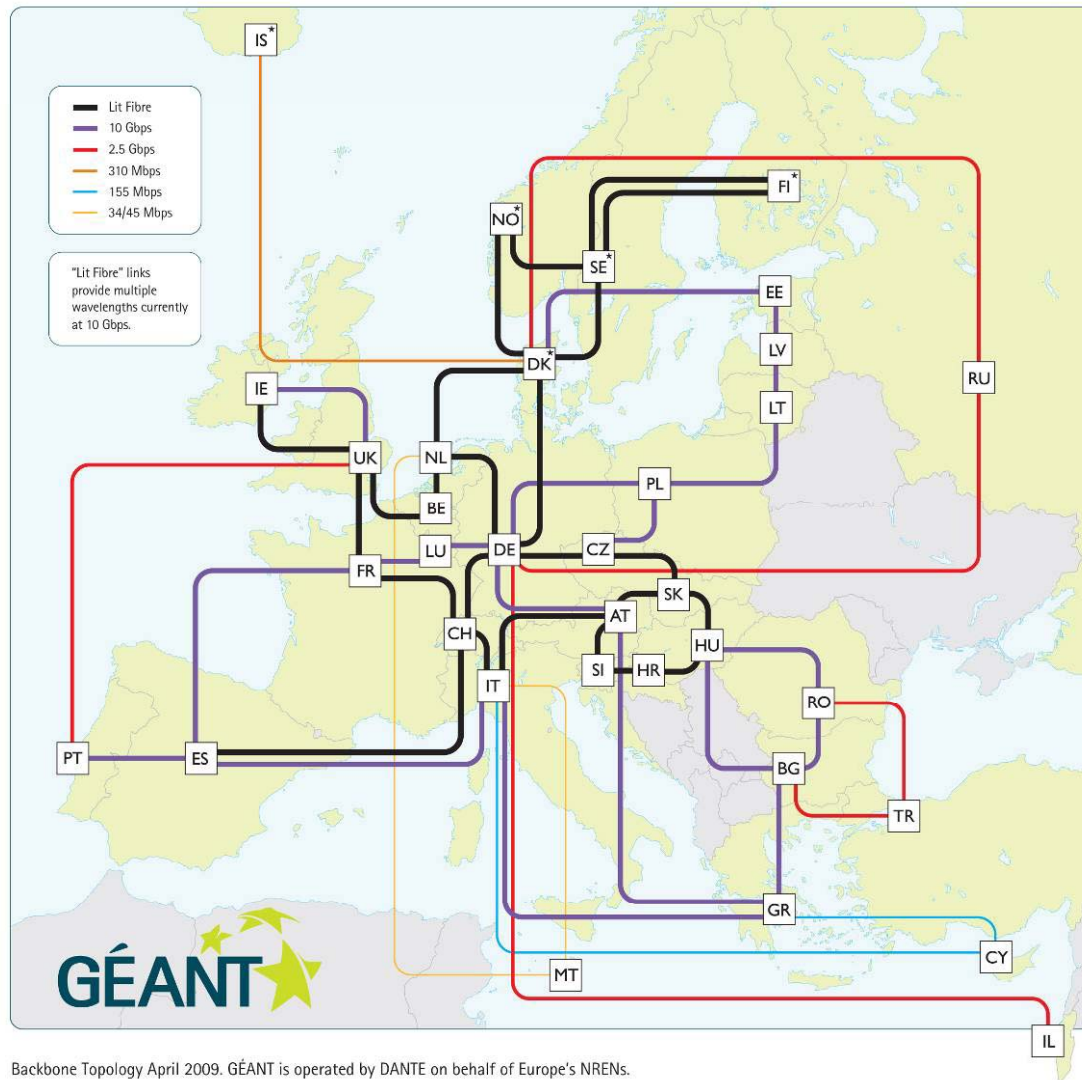
# GEANT developments and global Connectivity

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logo – must be white versions of logo

- GEANT = pan-European network interconnecting 34 European NRENs and providing connectivity to other world regions
- GN3 = EC funded project 4 years from April 2009
  - Deliver, operate and develop the GEANT network
  - Carry out a development programme to enhance the services offered by GEANT
    - *Backbone service developments (SA1, JRA1)*
    - *Multidomain service developments (SA2, JRA2)*
    - *end-user oriented services (SA3, JRA3)*
- Some Keywords for GN3: 100Gbps, delivery of circuits, performance management,

# GÉANT topology



Backbone Topology April 2009. GÉANT is operated by DANTE on behalf of Europe's NREs.

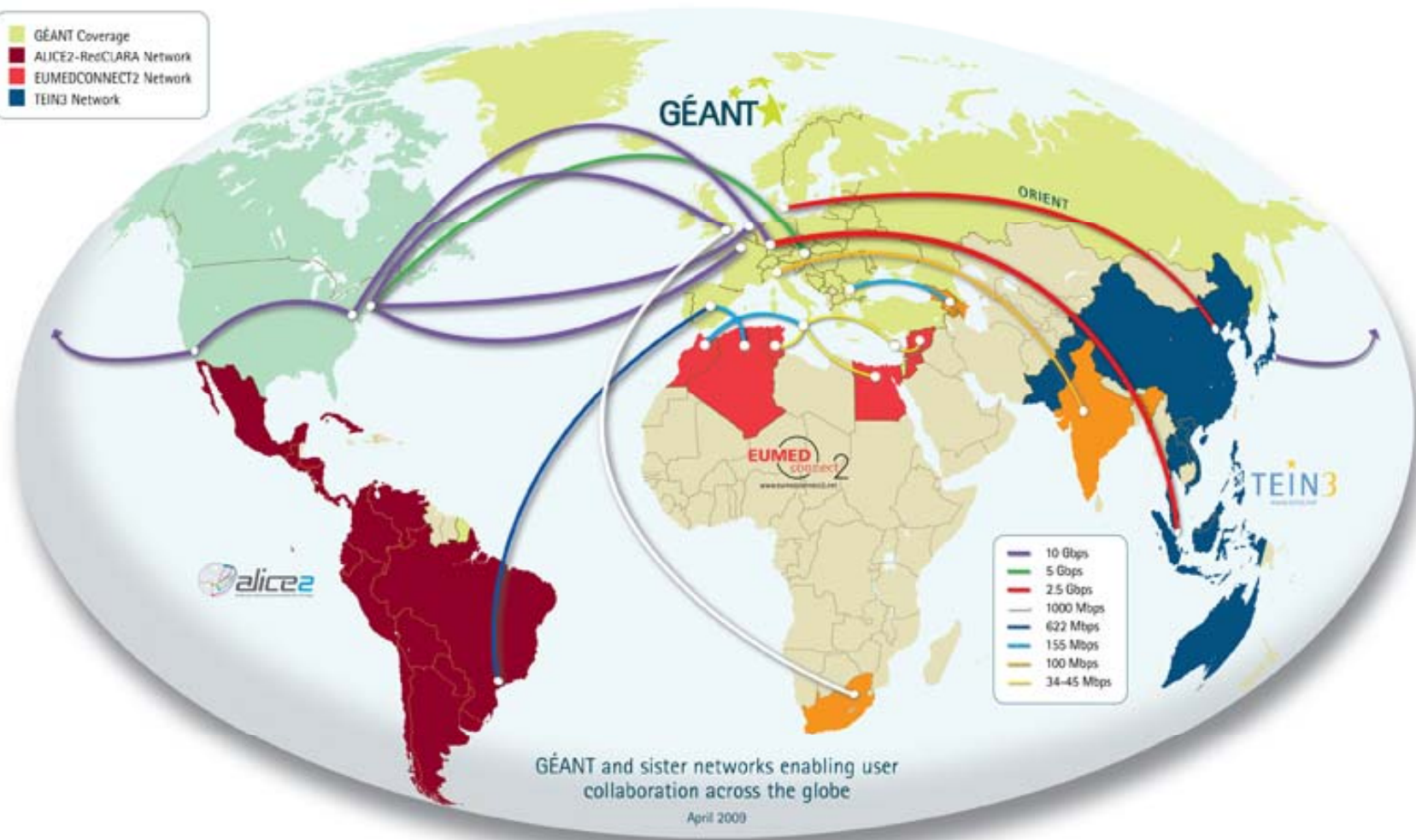
GÉANT topology – April 2009

- Juniper T1600, M120
- Alcatel MCC 1678
  - For circuit services
  - Based on NG-SDH
  - Might be replaced, RFI being prepared
    - *Could converge in IP or DWDM layer*
- Alcatel LM 1626 for DWDM
  - Proven with 40Gbps
  - 100Gbps ?
  - RFI being prepared

# GÉANT global connectivity - Today



- GÉANT Coverage
- ALICE2-RedCLARA Network
- EUMEDCONNECT2 Network
- TEIN3 Network



GÉANT global connectivity – April 2009

connect • communicate • collaborate

# GÉANT IP connectivity to North America



## IP connectivity

A End	B End	Capacity	Peering with
Washington	Frankfurt	10Gbps	I2 Esnet
New York	Amsterdam	10Gbps	I2 Esnet Canarie NLR SINET
New York	Vienna	5Gbps	ESnet

# GÉANT Circuit Enabled Connectivity



A End	B End	Capacity	To be used by
New York	Paris	10Gbps	I2, Esnet, Canarie
New York	London	10Gbps	I2, Esnet

## Usage:

7 GE between EU and North American R&E locations

Interoperability testing between GN3 community and Internet2

# In short...



- the GÉANT community reaches today
  - 50 NRENs outside of “greater” Europe
    - 19 in the Americas
    - 10 in Mediterranean, Middle East and Africa
    - 21 in Asia and Oceania