

From GÉANT to GÉANT2

Hans Döbbeling/DANTE



Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



DANTE

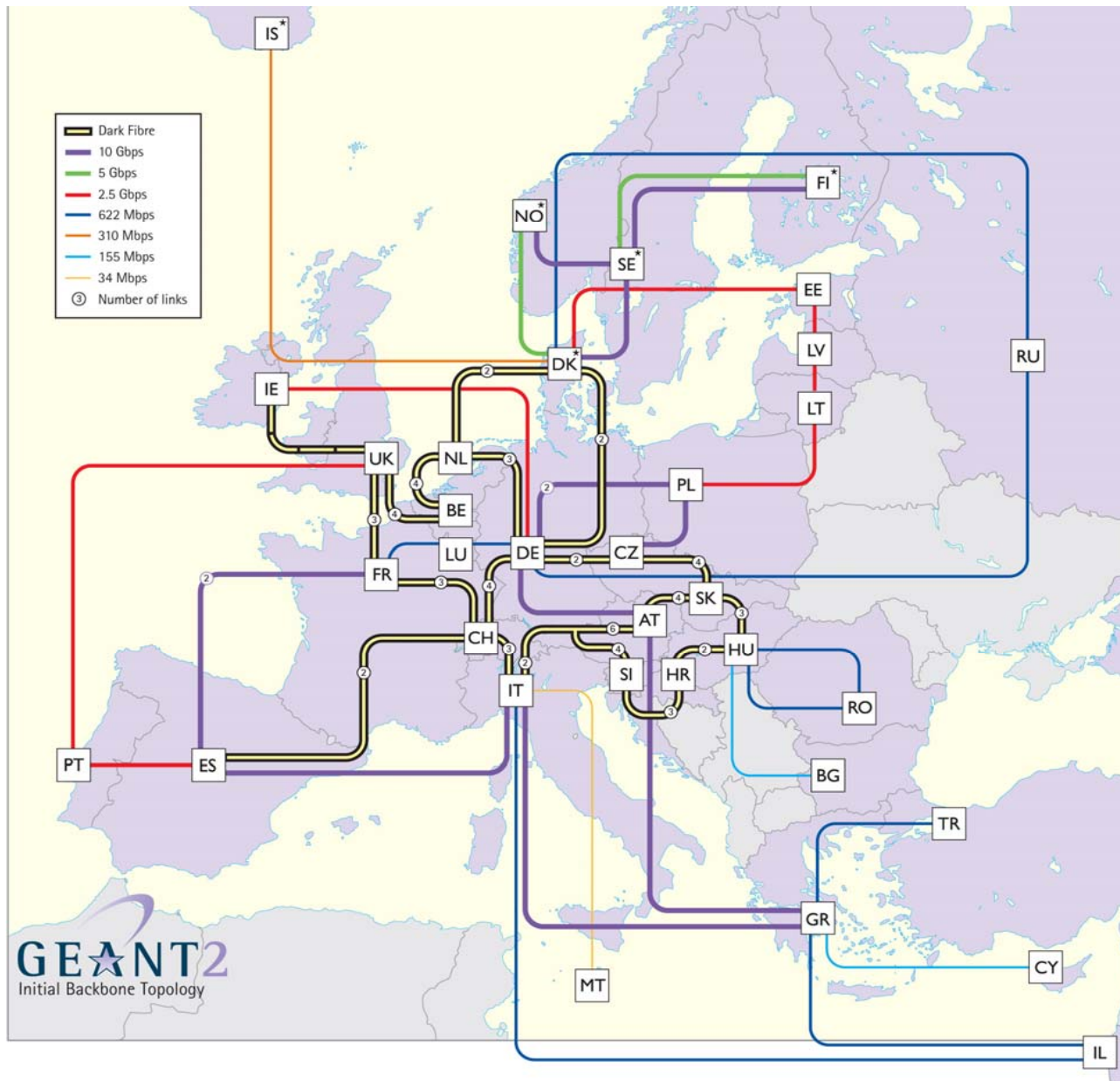
- Coordinator of the GÉANT2 project
- Plan, design, procure, contract, deploy and operate networks
- EUMEDCONNECT
- ALICE
- TEIN2
- DWS



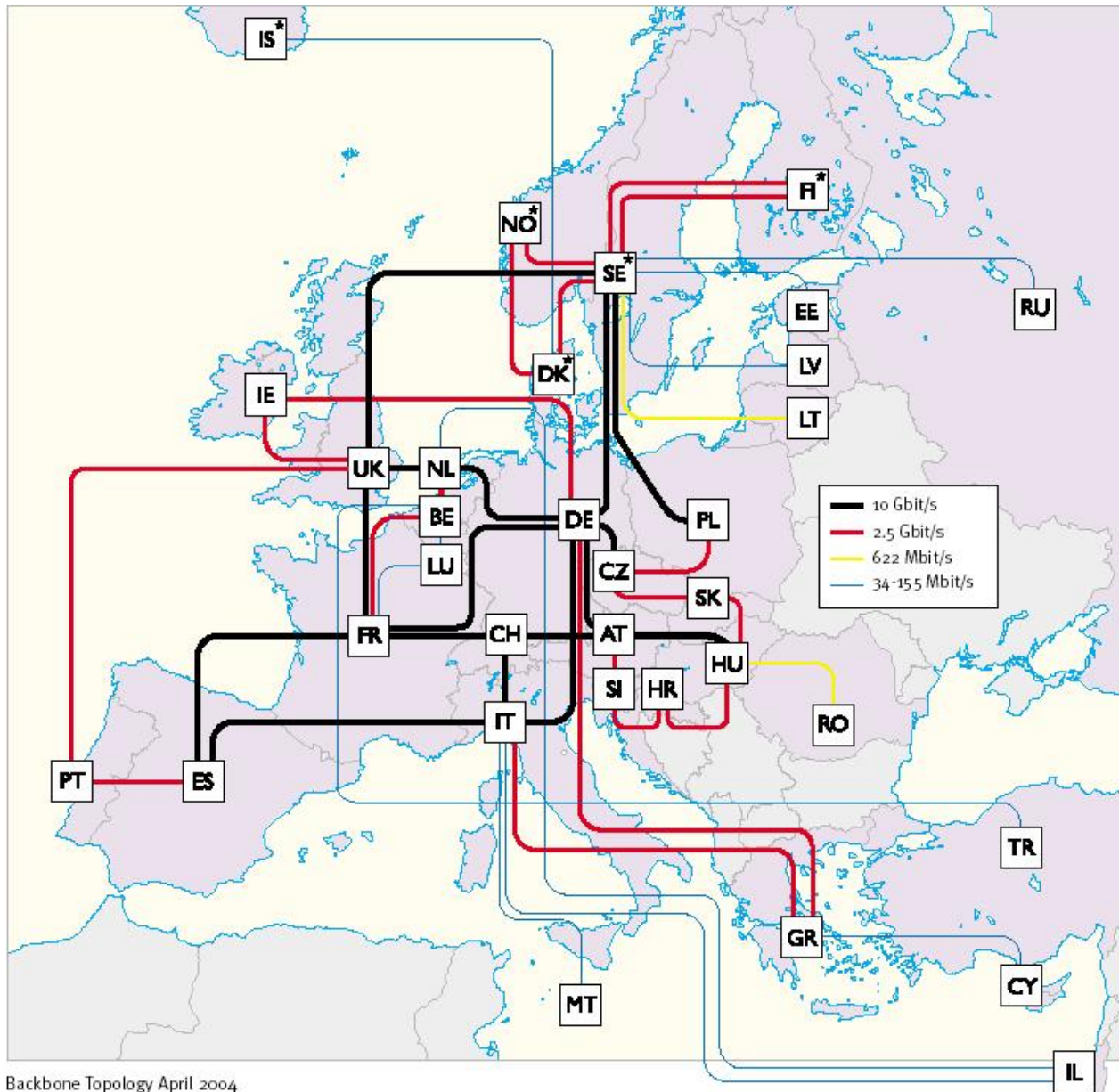
Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



The GÉANT2 Footprint



The GÉANT Footprint



What is new in GÉANT2 ?

- Addition of Russia, Turkey, Bulgaria as partners
- Multi domain management
- Joint research activities
- Hybrid character: wavelength services

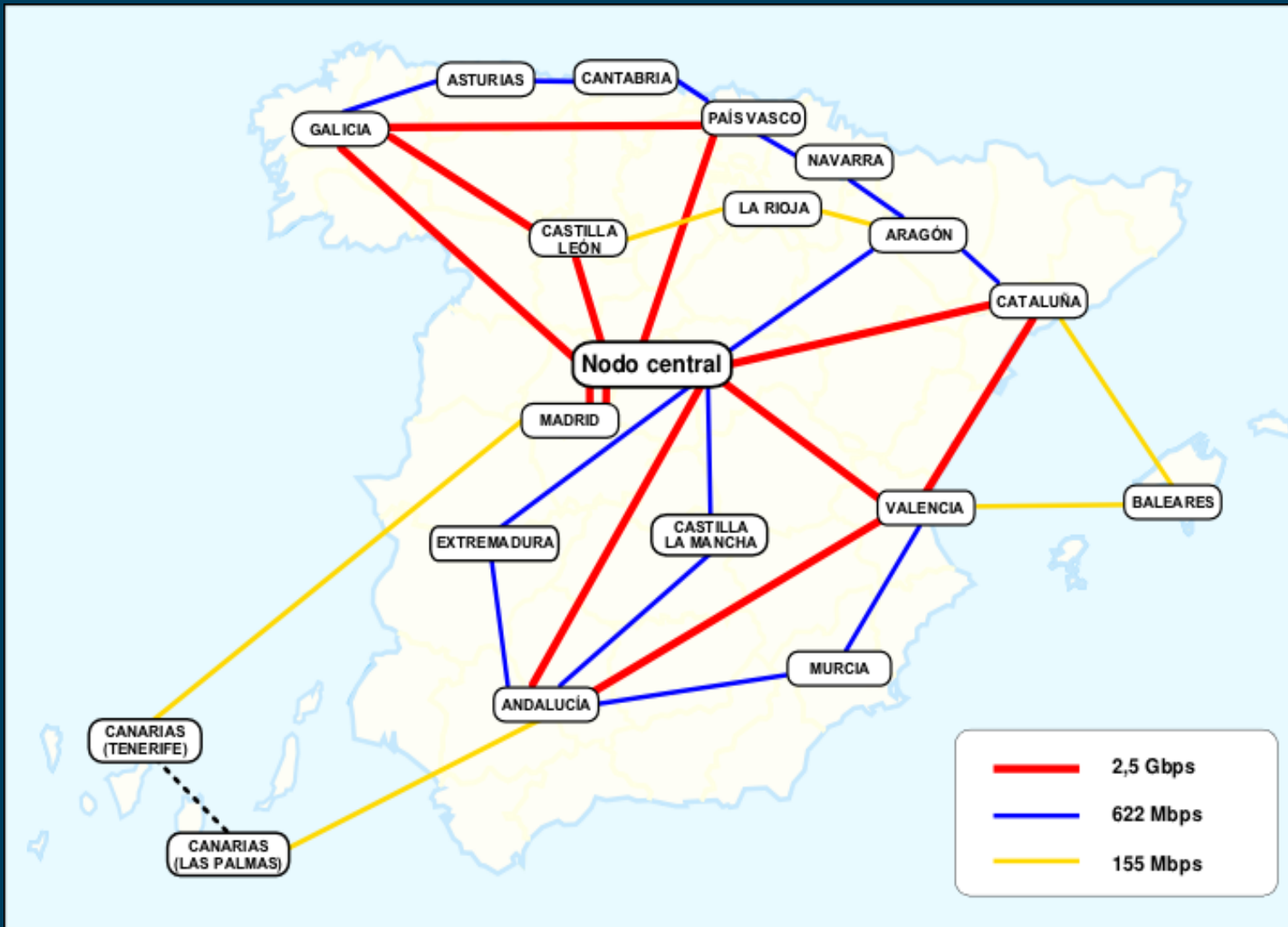
- operate dark fiber, operate own DWDM equipment
- tender reveals breakeven at small number of wavelengths



Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



RedIRIS 2



From GÉANT



To GÉANT2

0 km of dark fiber



~ 12,000 km of dark fiber
18 dark fiber routes

22 sites
main PoPs



~ 200 sites
POPs and inline amplifiers

~ 100 systems



~ 400 systems

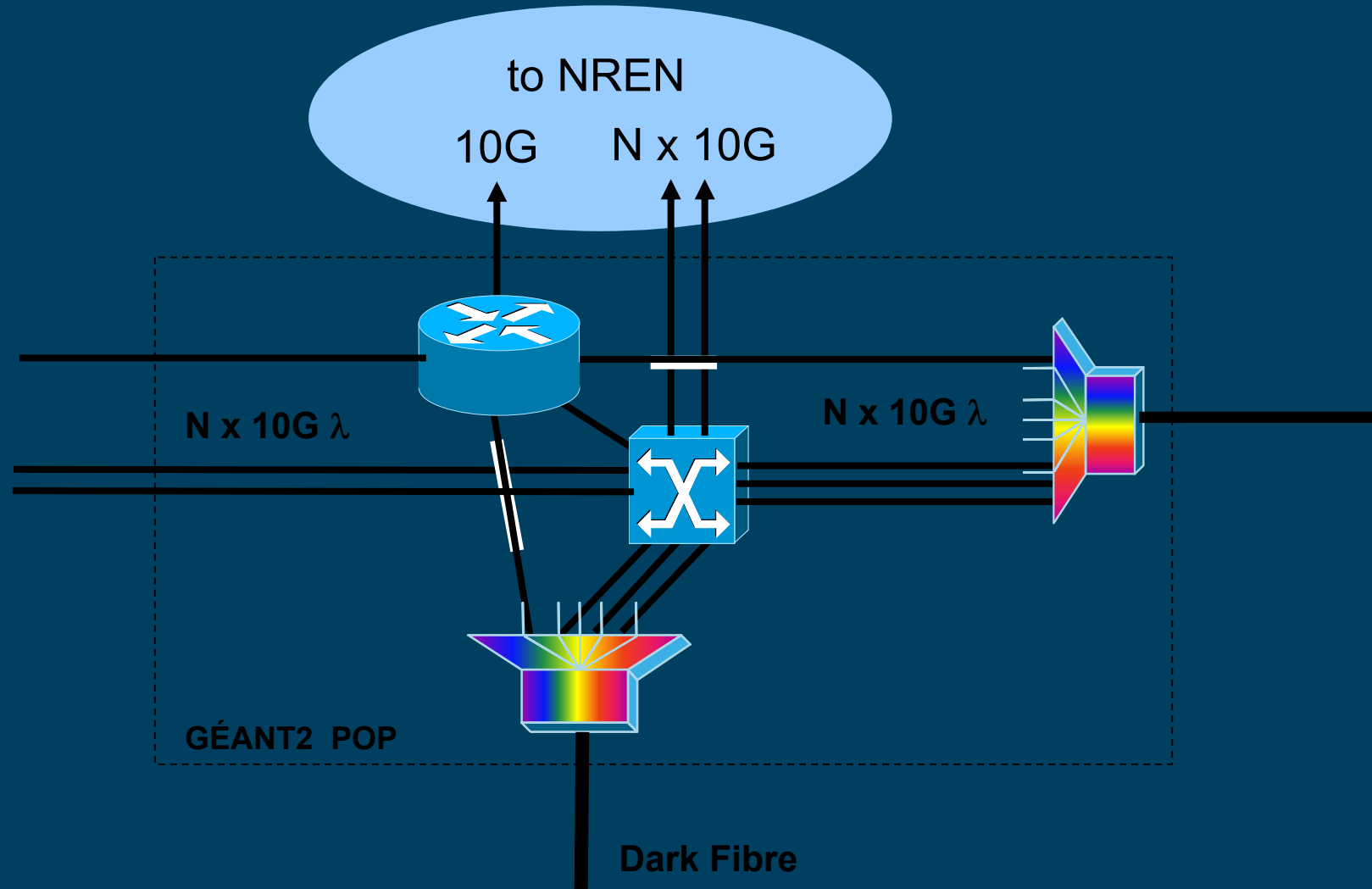
~ 40 e2e services
eVLBI, DEISA



hundreds of e2e services
LHC, DEISA, eVLBI



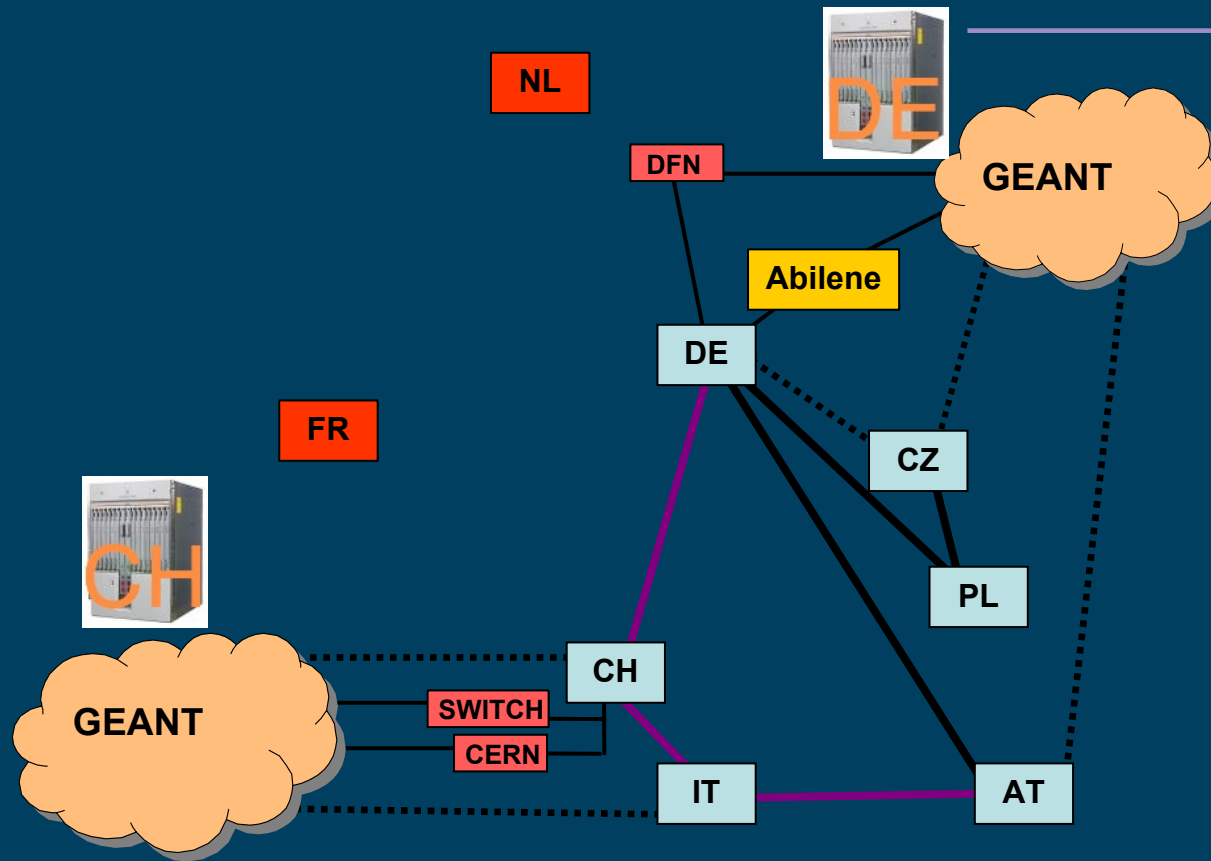
GEANT2 Hybrid POP



Network Migration Considerations

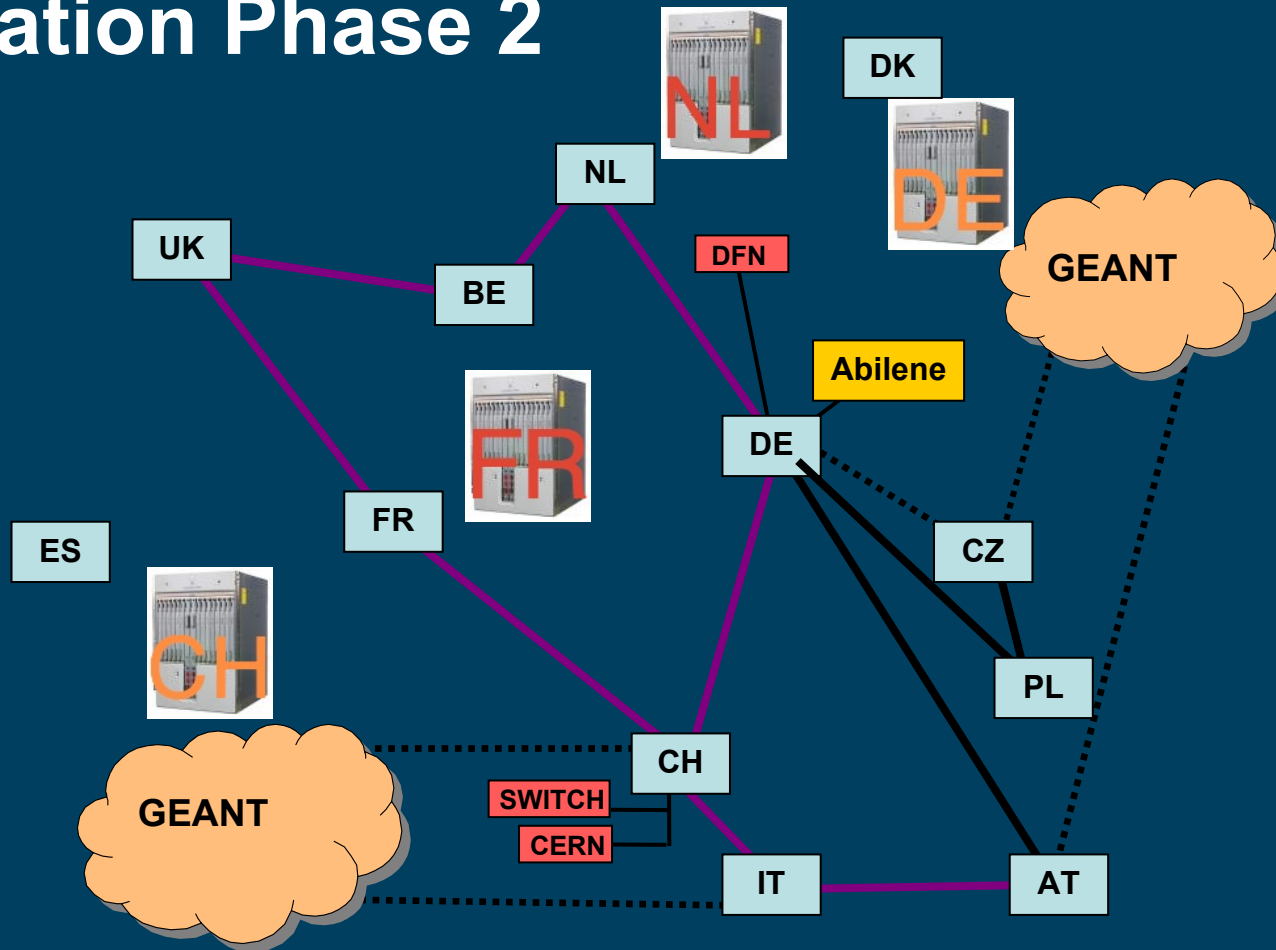
- GÉANT is an infrastructure
 - Keep existing services unaffected
- 11 main POPs are moving
- Reuse existing Juniper routing equipment
 - Acquire a minimum of new routers
- Availability of dark fiber
- Replace expensive services first
- Ability of NRENs to migrate
- Accept Alcatel LM1628 routes handover
- Accept Alcatel MCC 1678 TDM/Ethernet switches
- Establish new NOC procedures

Migration Phase 1



Slide by Marian Garcia Vidondo / DANTE Operations Team

Migration Phase 2



Slide by Marian Garcia Vidondo / DANTE Operations Team

Commissioning e2e services

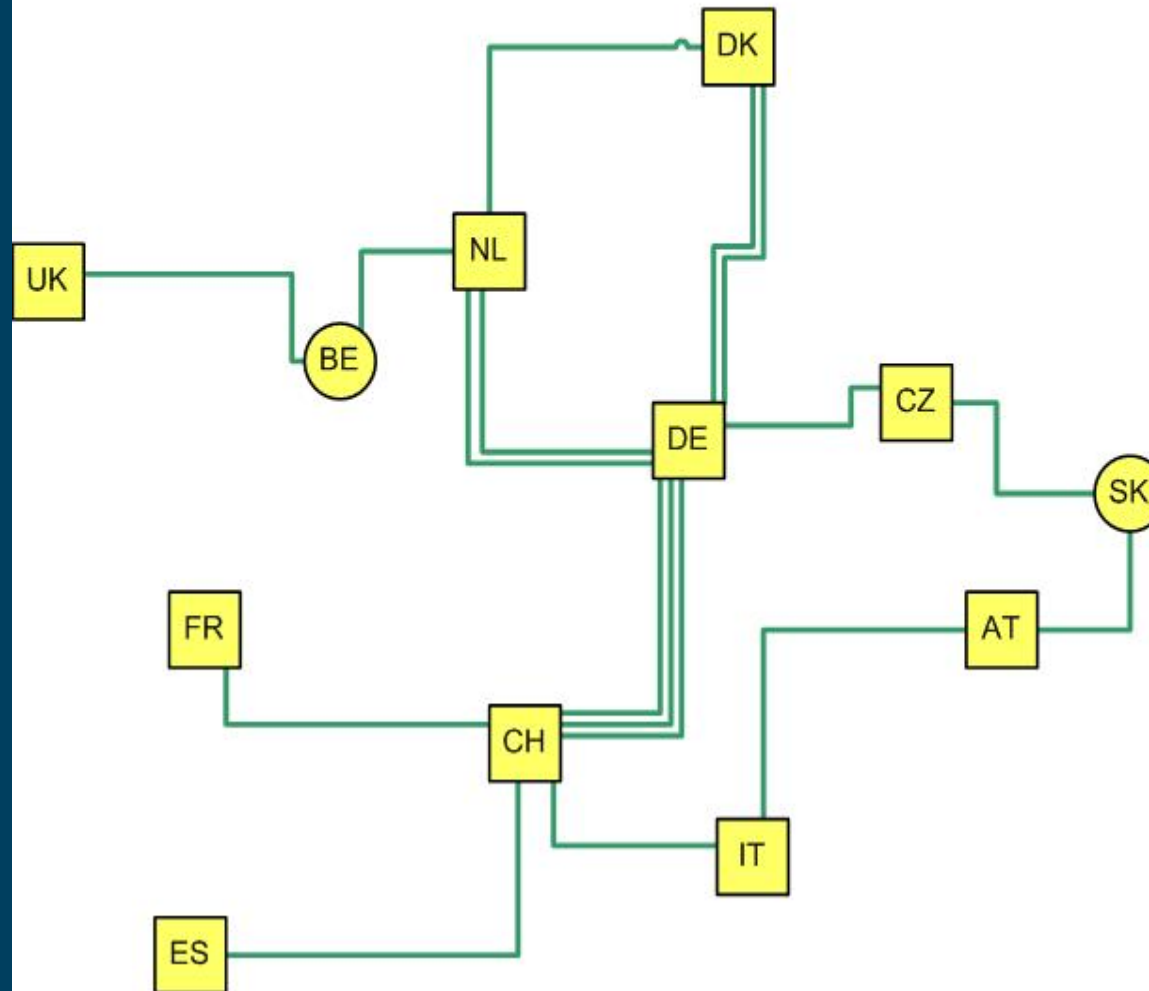
- Capacity requirements questionnaire



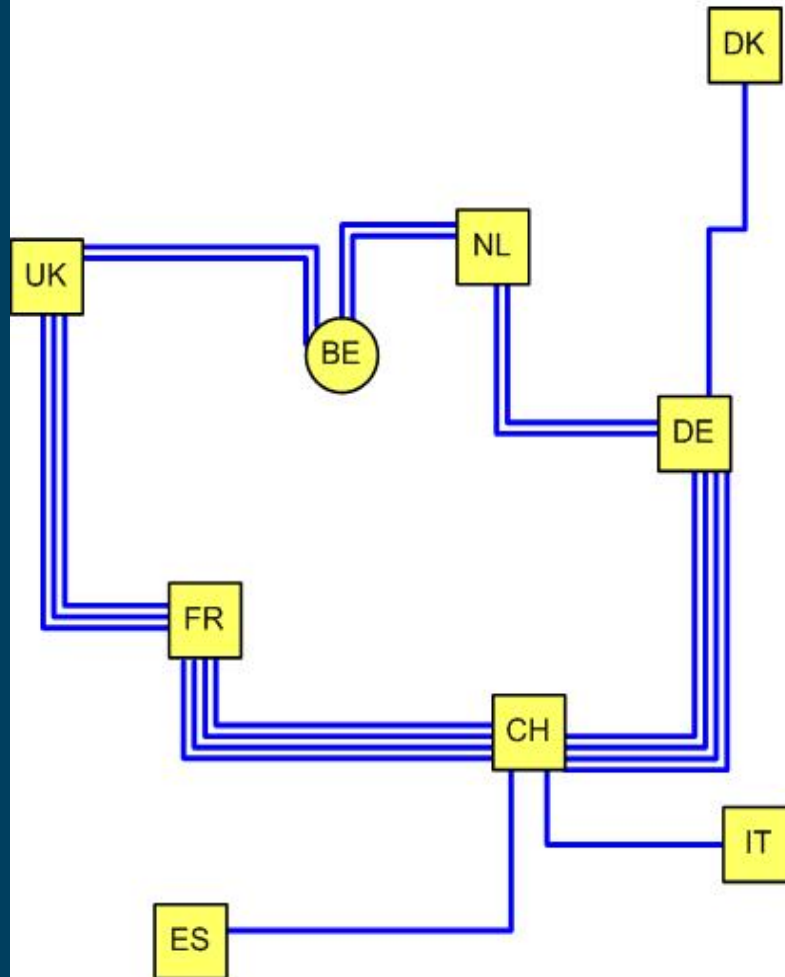
Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



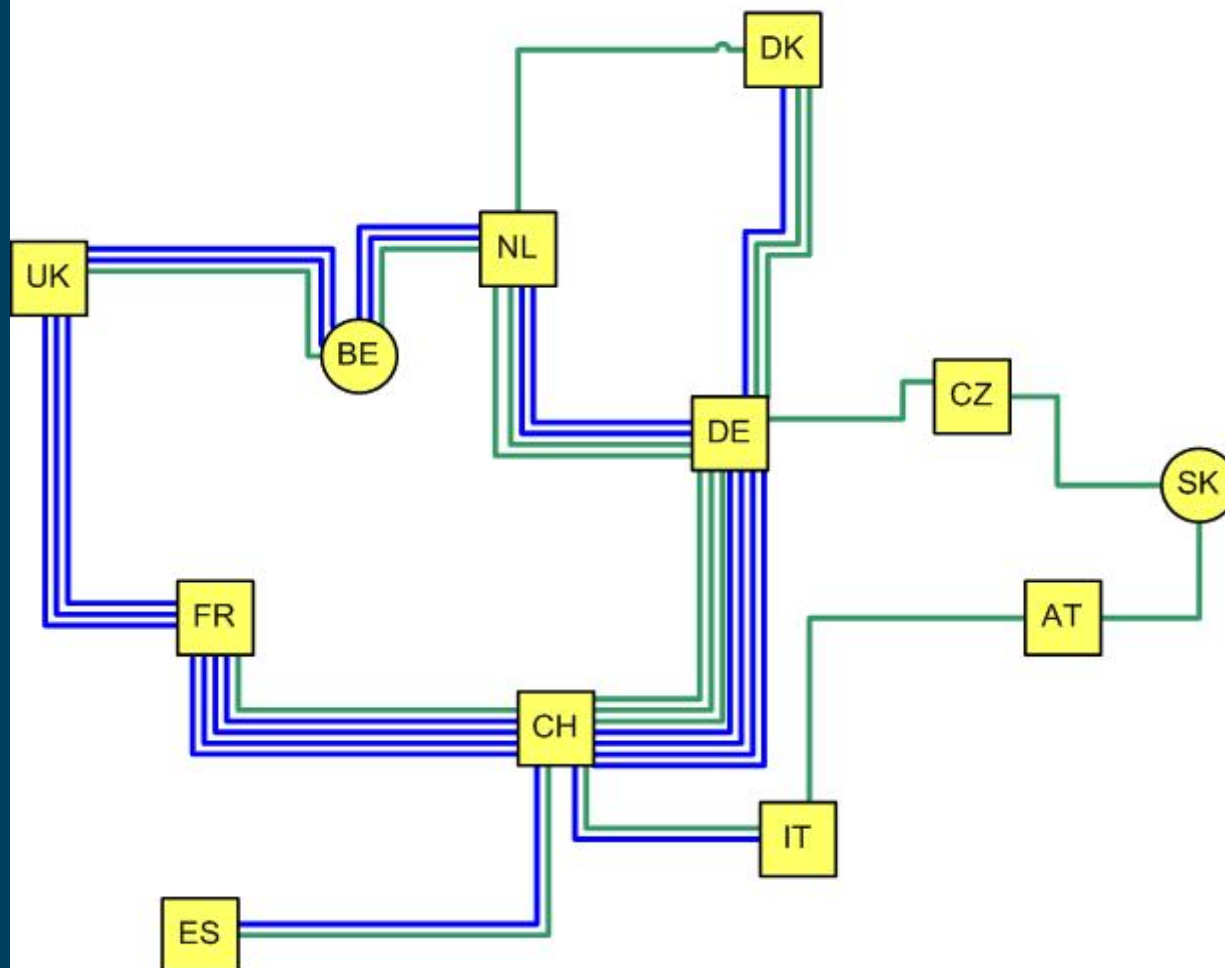
DEISA



LHC



DEISA - LHC



Joint Research Activities

Cooperation of multiple management domains

- multiple technologies
- three tiers Campus-NREN-GÉANT

- SA3 PERT, Premium IP
- JRA1 e2e Monitoring
- JRA2 Security
- JRA3 Bandwidth on Demand
- JRA4 Testbed, Cross Border Fiber
- JRA5 Roaming, AAI

From joint research to common services

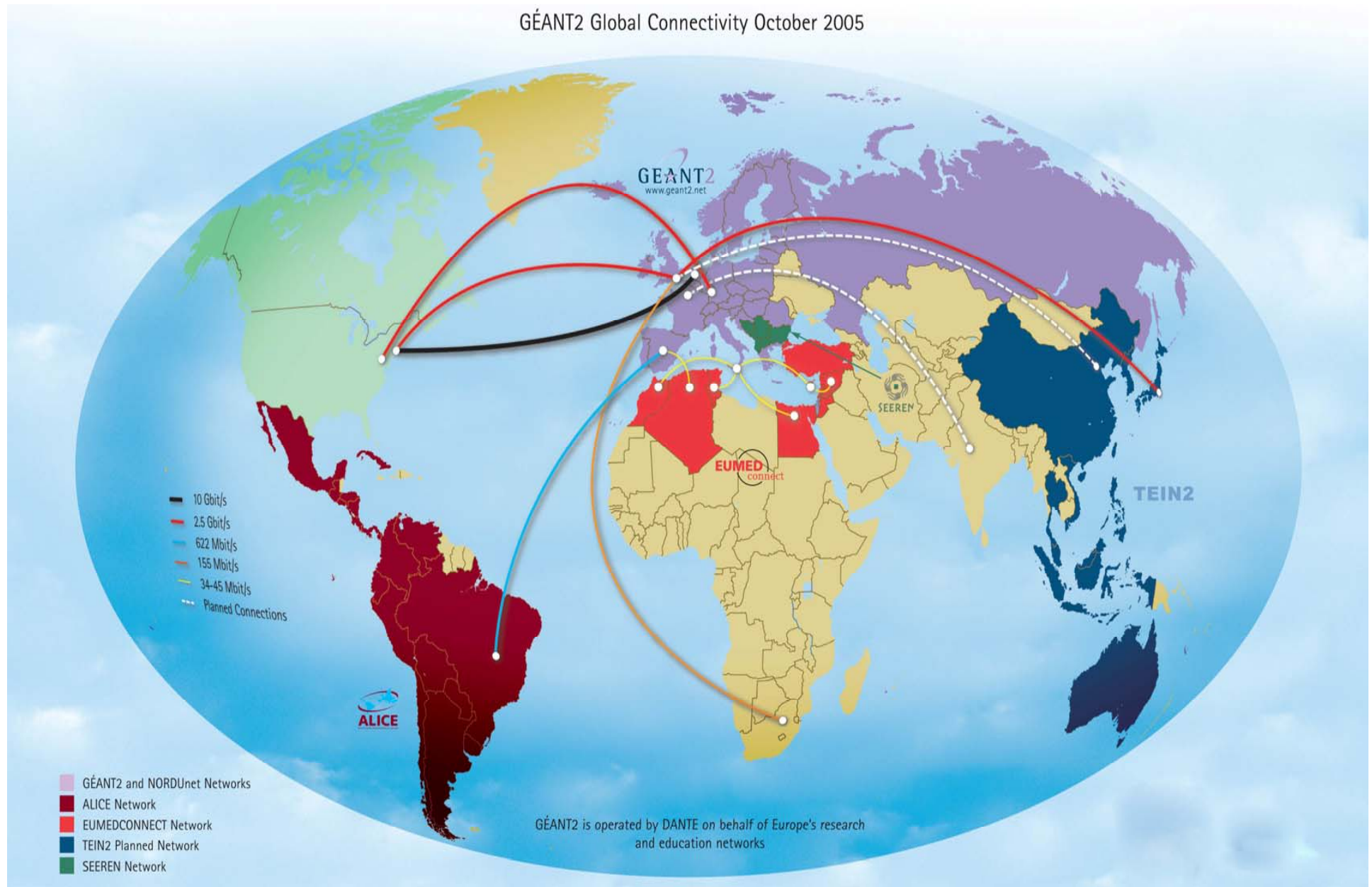


Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



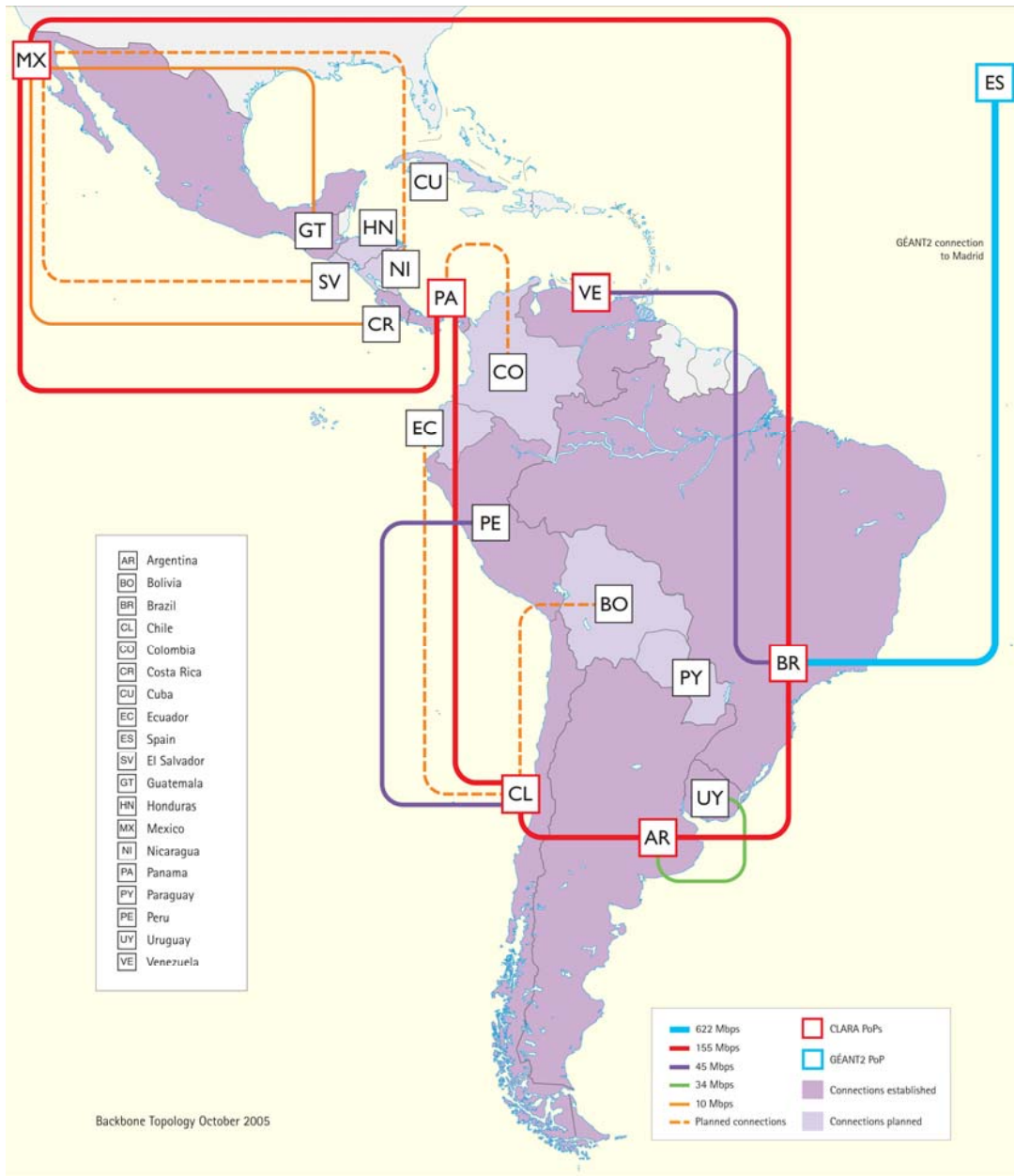


GÉANT2 Global Connectivity October 2005



Hans Döbbling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño





Global Collaborations: CETRAL – SOUTH AMERICA

ALICE Topology October 2005



Hans Döbbling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño



Thank you



Hans Döbbeling/DANTE
RedIRIS Jornadas Técnicas, 26.10.2005 Logroño

