

# On the shoulders of



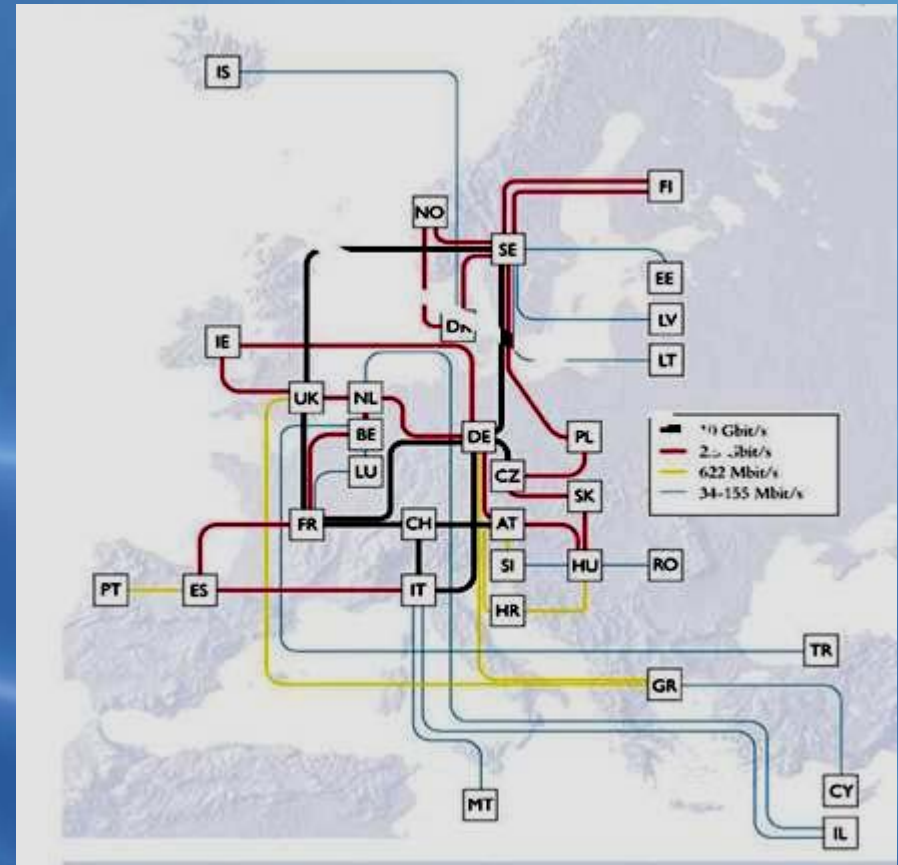
Moving Towards  
European Research Area:  
the two sides of the Coin

Fernando Liello  
European NREN Consortium chairman  
*Presented by Enzo Valente*



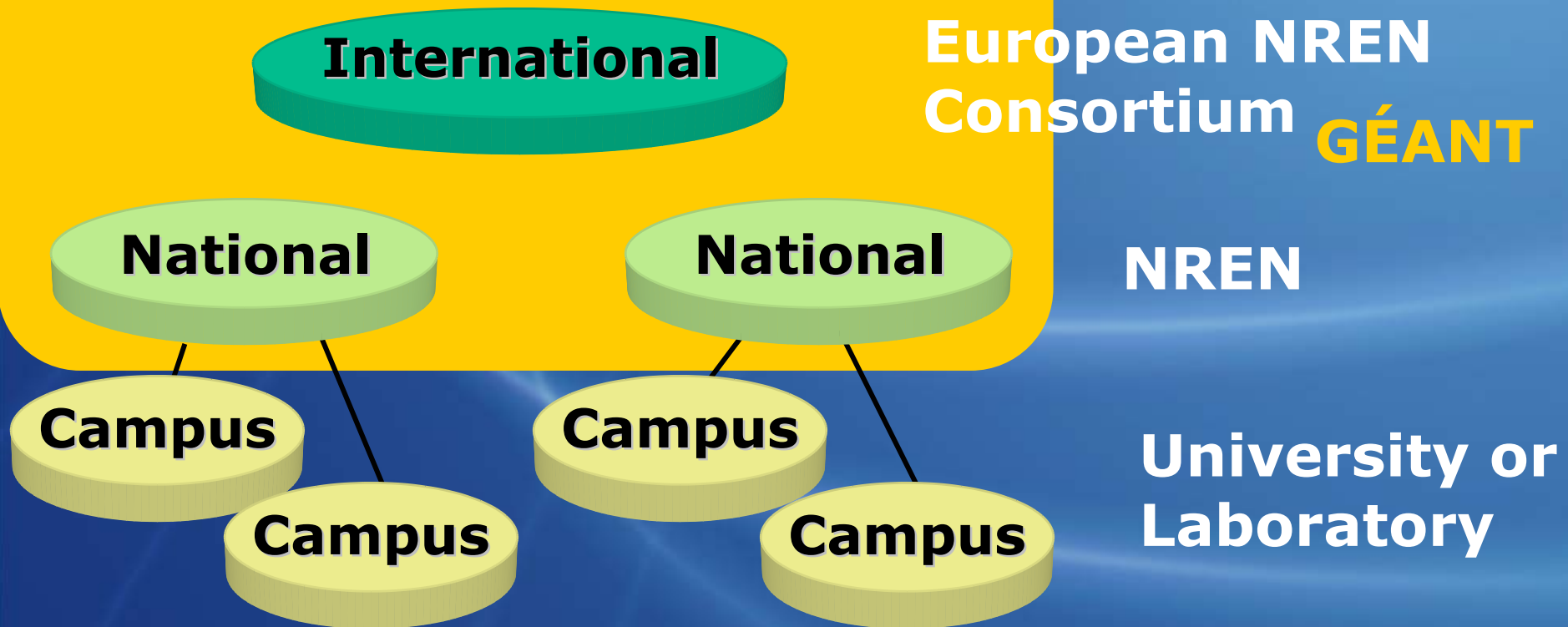
# Europe has filled the Gap

- GEANT is the most advanced network in the world, today
- Exploit liberalization in Europe
- The rich experience made by the NRENs
- The essential support of the funding bodies



# A Layered Structure in line with the subsidiarity principle

The Research network as seen by the user



# Complementarity's Success

- GEANT and the NRENs
  - One without the others would be useless
  - The Frame and the Contents
  - More complex but more flexible architecture
- Independency and Coordination
  - The end-to-end challenge
- Scientific and Technological Research are in the driving seat
  - Through the agencies (NREN) mandated to that
  - Without forgetting sound operation

# Infrastructure, Development

- Network for Research
  - Research requires support of IT Services
    - Advanced
    - Transparent
  - Worldwide
- Research on Networking
  - Requires a fast evolving infrastructure
  - To develop and experiment new technologies
  - The ability of segregating *risky* activities



# European Research Network and the GRID

- Services are the keyword
  - Bandwidth for the sake of bandwidth is useless
  - Researchers must be supported with the most advanced services
- The successful experience in FP5
  - Support of other projects' communication requirements
  - The fruitful experience of DATAGRID and DATATAG

# Research Excellence and Global Collaborations

- Communication of ideas and results
  - Access to data
  - Communication services
- Allow People and Resources to meet
  - Mobility of the Researchers
  - (Virtual) Mobility of Resources
- New approaches
  - Virtual Communities
  - Virtual Instruments

# Research Networks in the 6<sup>th</sup> Framework Programme

- Fight the divide created by different markets in Europe
- Diversified procurement strategies in different parts of Europe
- Stronger involvement of the NRENs
- Tight coordination and collaboration with the GRID infrastructure initiatives



# Europe is Not Enough

- Research is Global: Research Networks must be global as well
- Intercontinental initiatives are not specifically included in the main stream of EC support
- But intercontinental connectivity is of strategic value to exploit the ERA potential
- We have to seek specific support wherever is possible



# The NREN Consortium and EC opened the way

- Connectivity with other regions on a bilateral basis
  - North America
  - Japan
- Projects to encourage and support the emergence of regional networks in other areas and to connect them to GEANT
  - Mediterranean countries
  - Latin America
  - Pacific Rim





Thank you