



TEIN2 –Asia's first regional research network

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Global Collaboration 19 July 2006

Singapore

Delivery of Advanced Network Technology to Europe Ltd



International Research Networking

- Established in 1993 and based in Cambridge, UK
- A not-for-profit organisation
- Created and owned by Europe's National Research and Education Networks (NRENs)
- 2005 Annual Turnover – 47M Euros
- 35 staff members
- DANTE plans, builds and manages pan-European research and education networks....

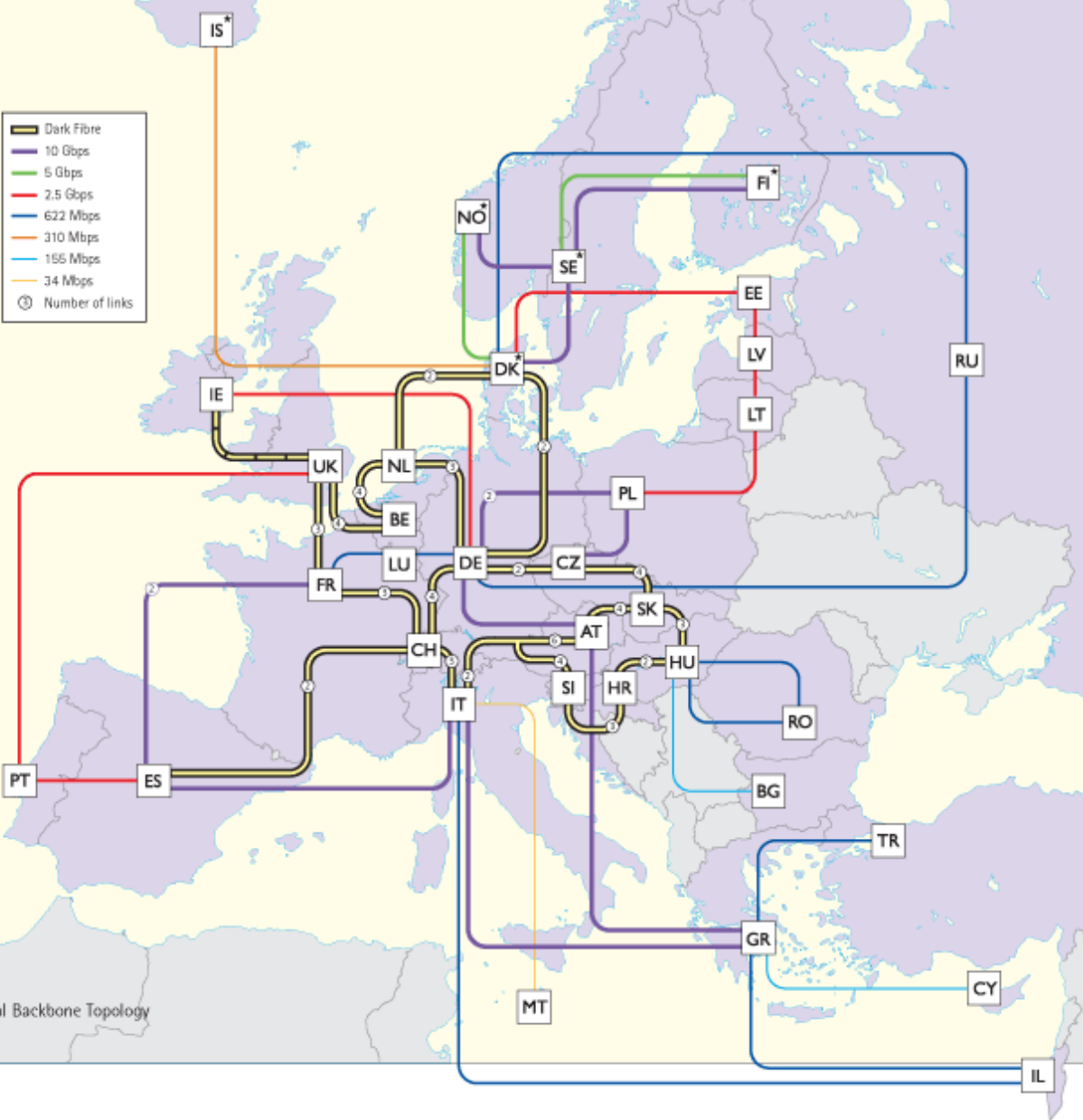
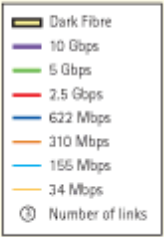




International Research Networking

GÉANT2

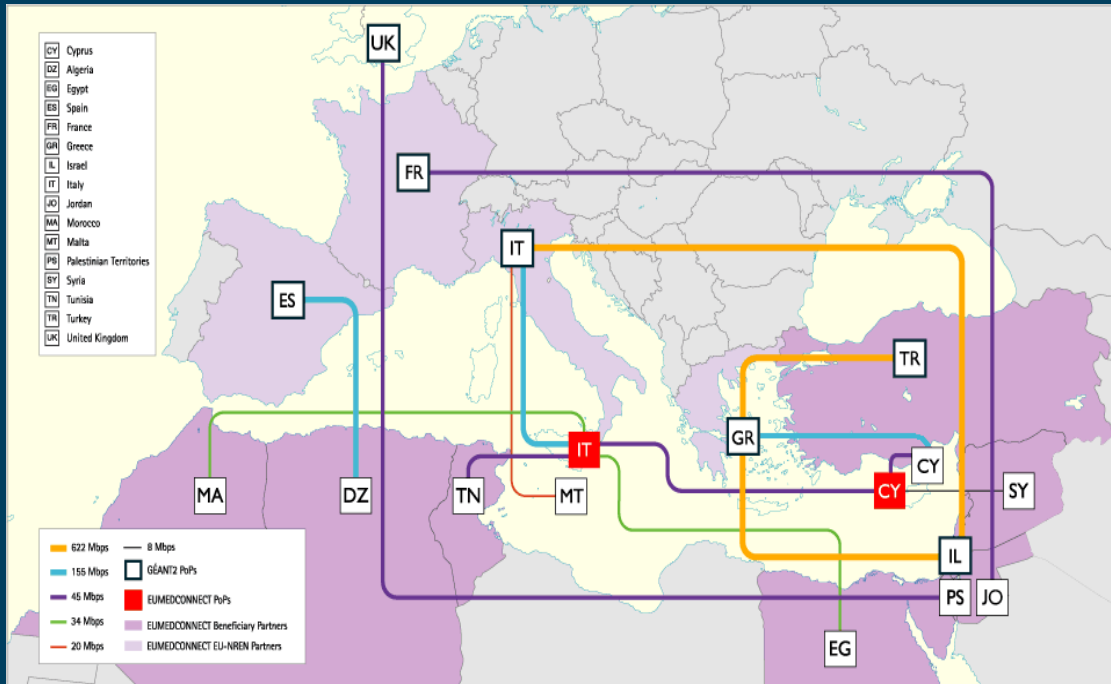
- 7th generation pan-European Research and Education network
- Connects 34 countries, 3500+ R&E establishments, over 30 M users
- 200 M EURO funding, jointly by NRENs and European Commission
- 2004 - 2008



EUMEDCONNECT Update



International Research Networking



- Extended from June 2006 to July 2007

- Follow on project planned

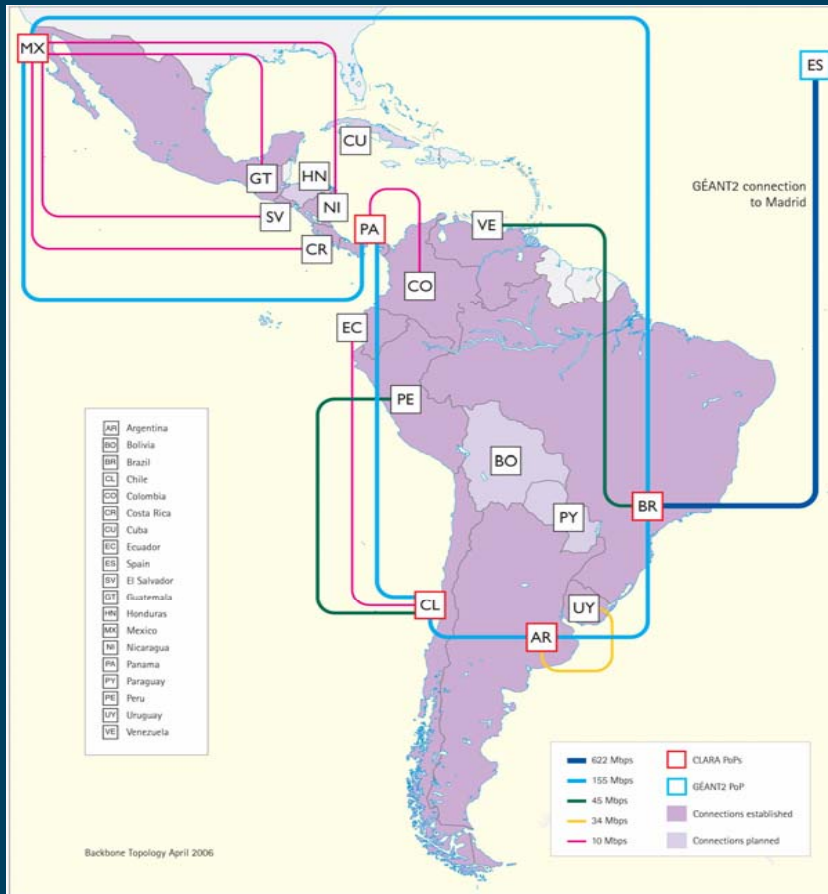
- All partners continuing to participate

- External funding support not yet confirmed

Alice Update



International Research Networking



- 14 countries, 730 universities and research centres connected
- Extended to March 2007
- Sustainability plans being prepared





International Research Networking

TEIN2 Overview

Asian Partners:

China – CERNET

Indonesia – ITB

Japan – MAFFIN, NII and NICT

Korea - KISDI

Malaysia – MDec

Philippines – ASTI

Singapore – SingAREN

Thailand – ThaiREN

Vietnam – VINAREN

Australia - ARNet

European Partners:

France – RENATER

Netherlands – SurfNET

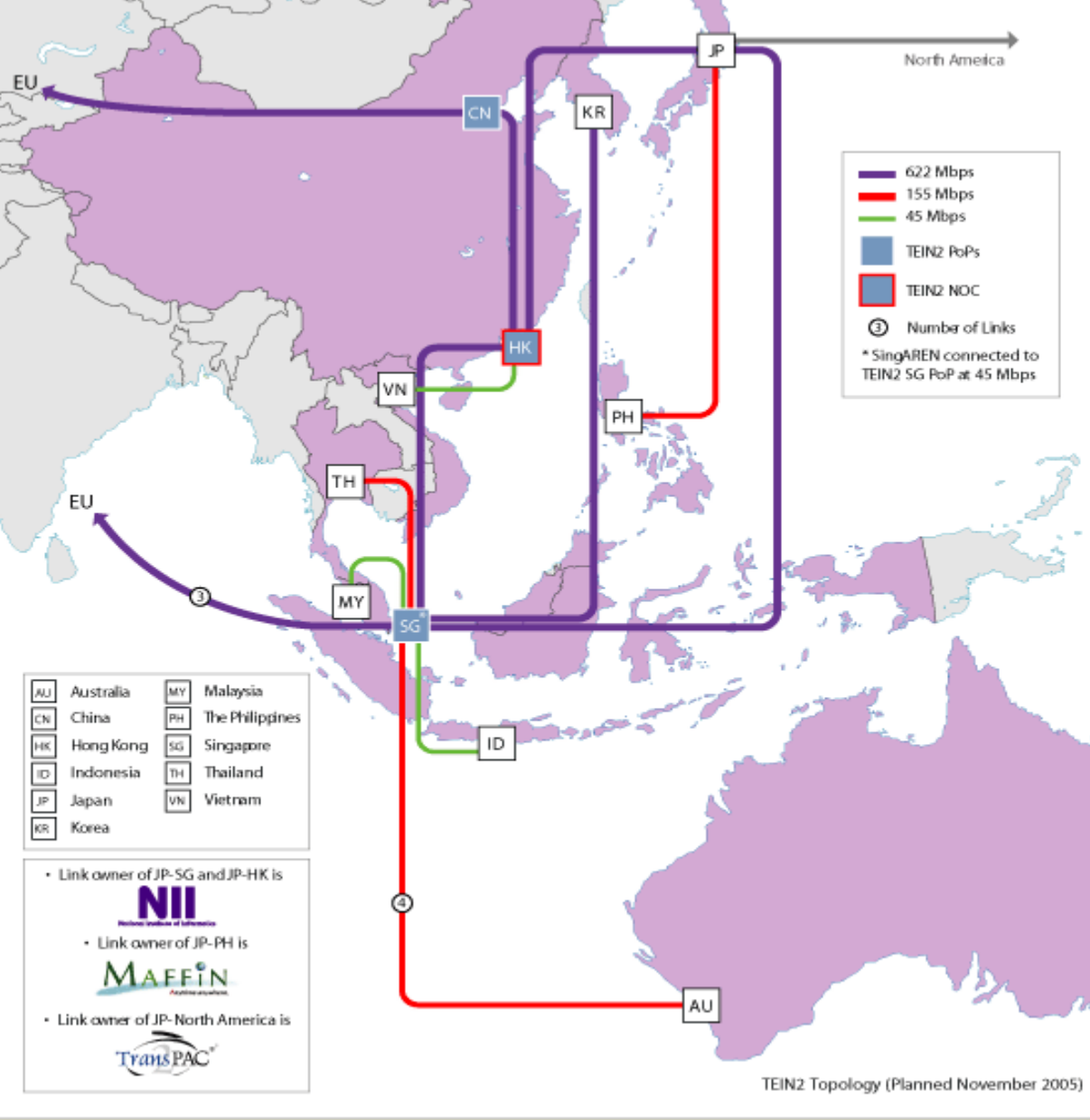
United Kingdom – UKERNA

EU Funding – 10 M Euro, targeted
to assist the developing
countries

Project co-ordinator: DANTE

Term of project: to Dec 2007





International Research Networking

- TEIN2 Network fully deployed
- Directly connects 10 Asia Pacific research communities and Europe,
- over 25 M users connected
- CN/EU link being upgraded to 2.5Gbps via ORIENT



Collaboration within TEIN2 project



International Research Networking

- Active TEIN2 Technical Committee
- KR, SG and AARNet - net financial contributors to TEIN2
- Significant network capacity and Tokyo PoP provided by Japanese networks
- TransPAC2 transit
- Back up transit agreements with NICT, CERNET, KOREN
- Juniper Networks equipment sponsorship



Exploiting the Advanced Network Technology of TEIN2



International Research Networking

- Medical Applications e.g. Tele-consultation between Australia and Vietnam
- Disaster warning e.g. Philippine Institute of Vulcanology and Seismology (PHIVOLCS) + partners
- Oceanography e.g. ASEM Oceans Initiative
- Climatology e.g. Philippine and German Weather Centres
- Distance learning e.g. University of Health Sciences, Cambodia and UPMC Medical School, Paris



Royal Children's Hospital Melbourne National Hospital of Paediatrics, Hanoi



International Research Networking

- 8-10 exchange visits per year
- Collaboration on NHP Hospital redevelopment
- Staff training master plan
- Other specialised paediatric training
- Reducing newborn mortality



[Courtesy Dr Laurie Wilson, CSIRO, Sydney]

**TEIN2**



**DANTE**

Royal Children's Hospital Melbourne National Hospital of Paediatrics, Hanoi



International Research Networking

- Improving outcomes congenital adrenal hyperplasia
- Prevention of blindness due to retinopathy of prematurity
- Early detection, prevention of eye disease
- Cause & incidence of Intussusception



[Courtesy Dr Laurie Wilson, CSIRO, Sydney]

**TEIN2**



**DANTE**

Tele-medicine consultation between RCH Melbourne and PDH Hanoi 8 June 2006



International Research Networking



Promoting TEIN2 during 2006



International Research Networking

- 24 Jan 21st APAN Tokyo
- 21 March NII International Workshop on Cyber Science Infrastructure, Bangkok, Thailand
- 29-31 March ENGAGE Workshop, Manila, The Philippines
- 29-31 March Technical Working Group Meeting of the ASEM Oceans Initiative, Manila, The Philippines
- 23 April 1st ASTRENA Meeting, Bandar Seri Begawan, Brunei Darussalam
- 14 April 11th Advanced Network Workshop, Incheon, Korea
- 8/9 June ASEM ICT SOM, Ha Long
- 19/20 June EUSEA2006, Singapore
- 17-21 July 22nd APAN Meeting, Singapore
- 9 September ASEM6 Summit, Helsinki
- Dec ASEM ICT Ministers, Hanoi



National Research and Education Networks catalysed by TEIN2



International Research Networking



INHERENT/ITB -Indonesia



Malaysia



Thailand



Vietnam



VINAREN Launch 8 June 2006



International Research Networking



TEIN2 continuation – objectives after Dec 2007



International Research Networking

1. Seamless continuation of network
2. Potential for expanded geographical coverage
3. Increased applications focus
4. Transition to Asian ownership

‘TEIN3’ plans being developed, funding options being explored

