



**Open Digital space for the Mediterranean**

*Agadir 26-28 March 2009*

## **e-Infrastructures in the Arab Mediterranean**

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## National Efforts (*Jordan*)

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- The Jordanian National Broadband Network NBN is a national program to use dark fiber to connect around 3200 schools, 10 Universities and around 110 Public Access Sites
- The Jordanian Universities Network (JUNet) is the official NREN of Jordan, currently connecting 11 Universities via optical fiber, with 1Gbps per University
- 14 Private Universities and 6 research institutes will be connected to JUNet this year
- JUNet is the Jordanian partner for EUMEDCONNECT and EUMEDGRID and other regional cooperation projects
- JUNet is working on promoting the technology for research and collaborative research.

## National Efforts (Arab Mediterraneans)

Morocco	Moroccan Academic and Research Wide Area Network	MARWAN
Algeria	Algerian Academic Research Network	AARN
Egypt	Egyptian Universities Network	EUN
Palestine	Palestinian Association for the Development of Internet 2	PADI 2
Tunisia	Khawarizmi Computing Centre	KCC
Syria	Syrian Higher Education and Research Network	SHERN

# PAN Arab Research Network

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- In 2005, and based on Jordan's Experience with JUNet, The Ministry of ICT of Jordan initiated a project to study the feasibility of using the optical fiber of the power distribution grid in the Arab Countries for the purpose of building the PAN Arab Research and Education Network
- The project was funded by the Government of Jordan, Canadian International Development Agency (CIDA) and Cisco Systems
- The first phase of the feasibility study covered Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Palestine Authority, Lebanon and Syria





# NAP: Arab States Network Access Point

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- In line with the Global Summit on Knowledge societies, one pillar of the General Arab Strategy for Communication and Information Technology “Building an Information society 2007-2012” was:

*“Achieving universal access and improving quality of services for the Arab citizen, utilizing information and communication technology”*

- Based on this pillar, the ITU / Arab Regional office adopted the NAP in the Arab states initiative

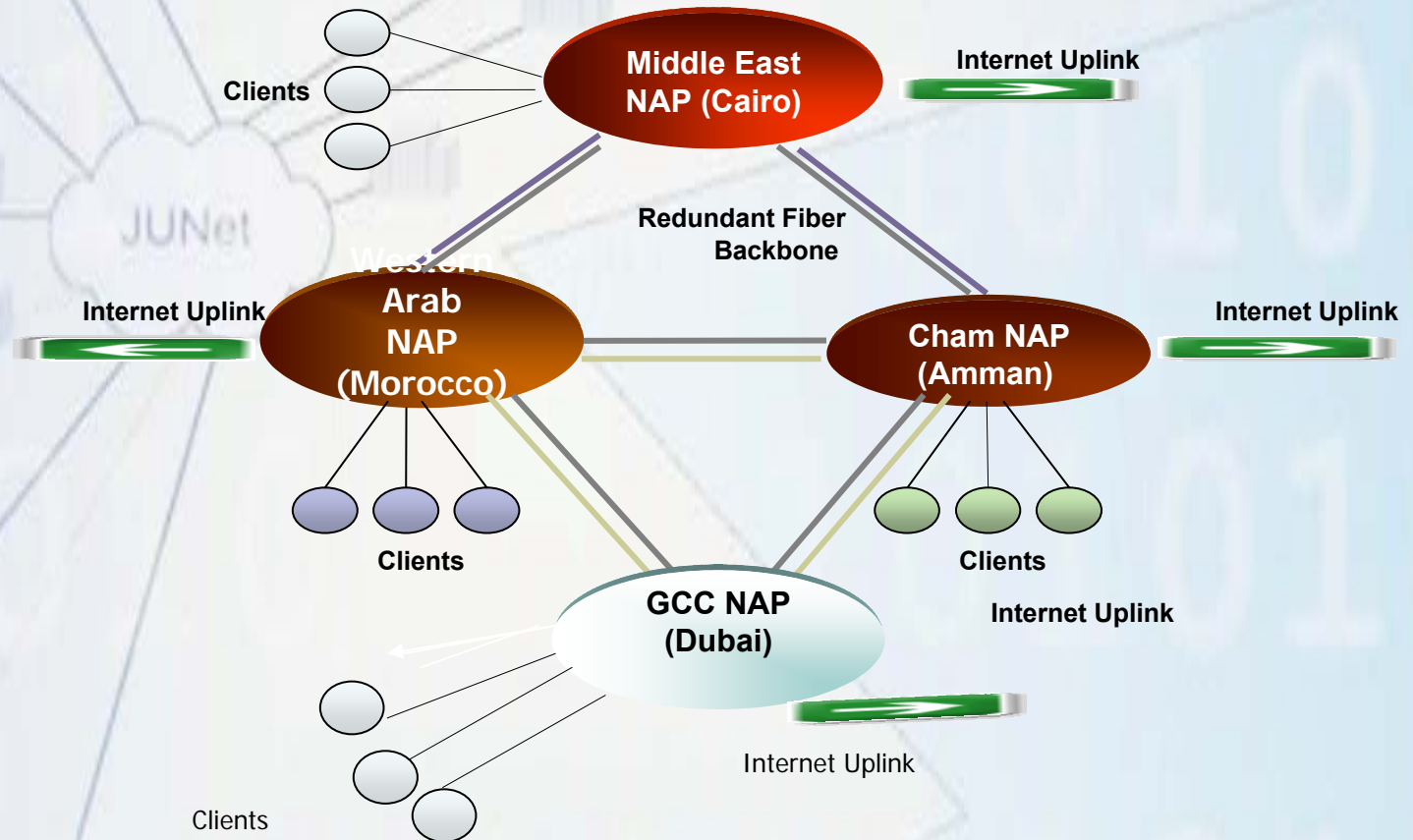
# NAP – Proposed Locations

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- **Western Arab NAP:** located in **Morocco** to cover Algeria, Mauritania, Libya and Tunisia
- **Middle East NAP:** located in **Egypt** to connect Sudan, Somalia, Djibouti and Comoros.
- **GCC NAP:** located in **Dubai** to connect Kuwait , Saudi Arabia , Qatar, Oman, Bahrain, UAE and Yemen.
- **Cham NAP:** in located **Jordan** to connect Syria ,Iraq, Palestine Authority and Lebanon .



# NAP: Layout





# Rome Declaration

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After several meetings and discussions, the representatives of the Arab Mediterranean NRENs recognized that:

- The importance for the academic and research community in the Mediterranean region to count on **a regional infrastructure for data communication to improve cooperation in the area of academic research and investigation and education within the region and globally.**
- The importance for the academic and research community in the Mediterranean region to count on **a regional consortium to support the development and implementation of a regional infrastructure for data communication based on advanced networks.**
- The importance for the academic and research community in the Mediterranean region to count on **a regional consortium to support applications and e-services that assist research, education and learning in these countries.**

# EUMEDCONNECT

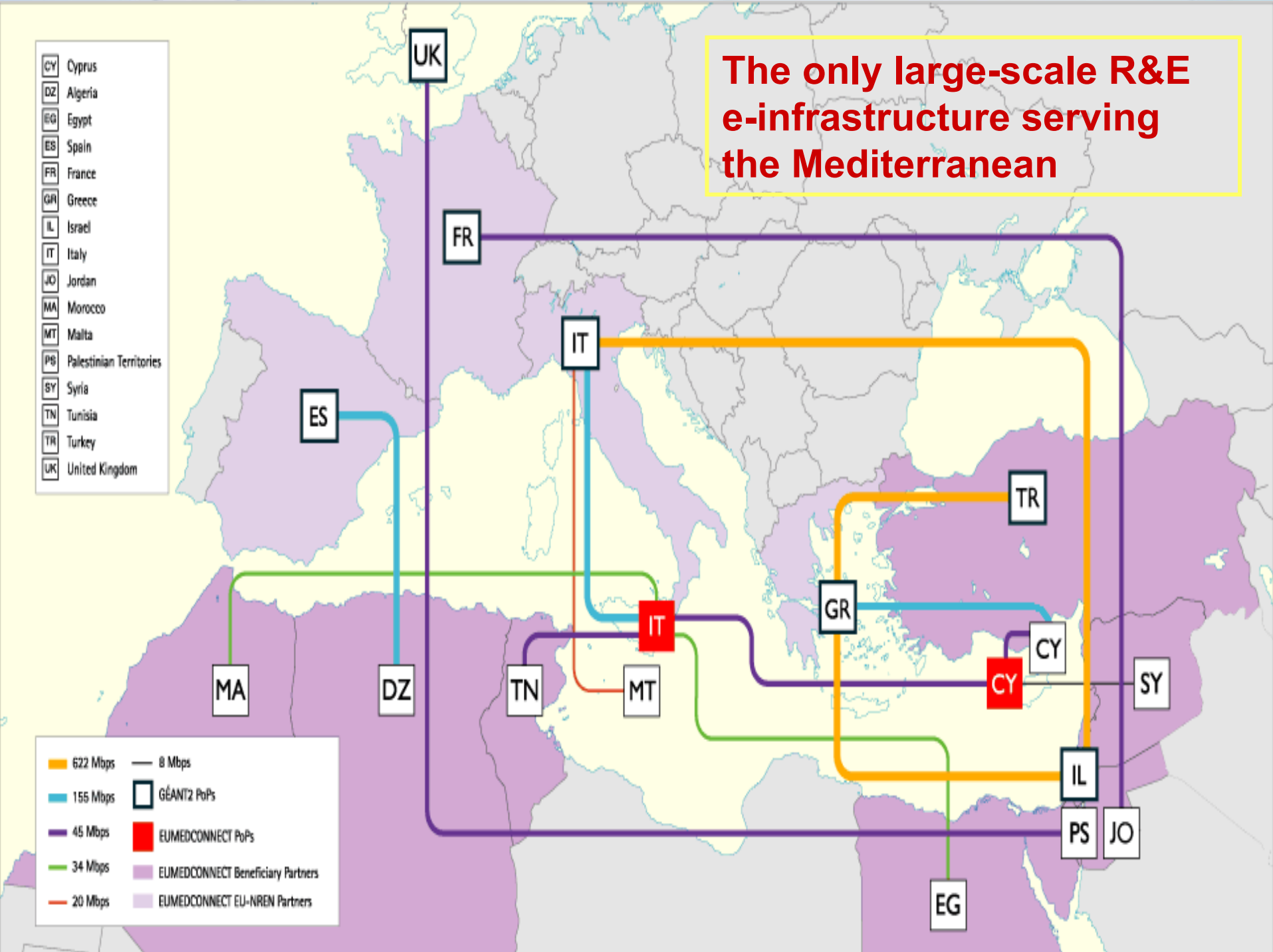


- First EC funded regional R&E project outside Europe
- 11 MED partners, 4 EU partners
- Network started 2004

# The only large-scale R&E e-infrastructure serving the Mediterranean

CY	Cyprus
DZ	Algeria
EG	Egypt
ES	Spain
FR	France
GR	Greece
IL	Israel
IT	Italy
JO	Jordan
MA	Morocco
MT	Malta
PS	Palestinian Territories
SY	Syria
TN	Tunisia
TR	Turkey
UK	United Kingdom

622 Mbps	8 Mbps
155 Mbps	GÉANT2 PoPs
45 Mbps	EUMEDCONNECT PoPs
34 Mbps	EUMEDCONNECT Beneficiary Partners
20 Mbps	EUMEDCONNECT EU-NREN Partners



# Connected Projects include:

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EUMEDGRID  
MedGeNet  
MOSAICS  
PROHITECH  
NEAREST  
EUMEDGRID  
NET-ADDED  
MAC-OILS  
AQUARHIZ  
PROMET  
SOWAMED  
PARASOL

YOUNG-TRAIN  
ECHINONET  
ADU-RES  
CYCLER-SUPPORT  
MELIA  
INNOVA-MED  
CIBEWU  
WATNITMED  
EU-MED AGPOL  
LEISH-MED  
DIMAS  
AQUARHIZ  
PLEIADES

WEMED  
TRITIMED  
KASSA  
PERMED  
SWAP  
OPTIWHEAT  
QUALIWATER  
ERA-MED  
IDEALIST7FP  
FOOD-N-CO  
EURO-MEDANET  
PROMEDACCESS  
MED 7

MEDINDUS  
C.H.E.R.K.  
OPTIMA  
RAMSES II  
C.H.E.R.M.  
HERMES  
DESIRE  
WADI  
SHADUF  
PAPERTECH  
MED-COLOUR-TECH  
MAP-IT!  
HYRESS



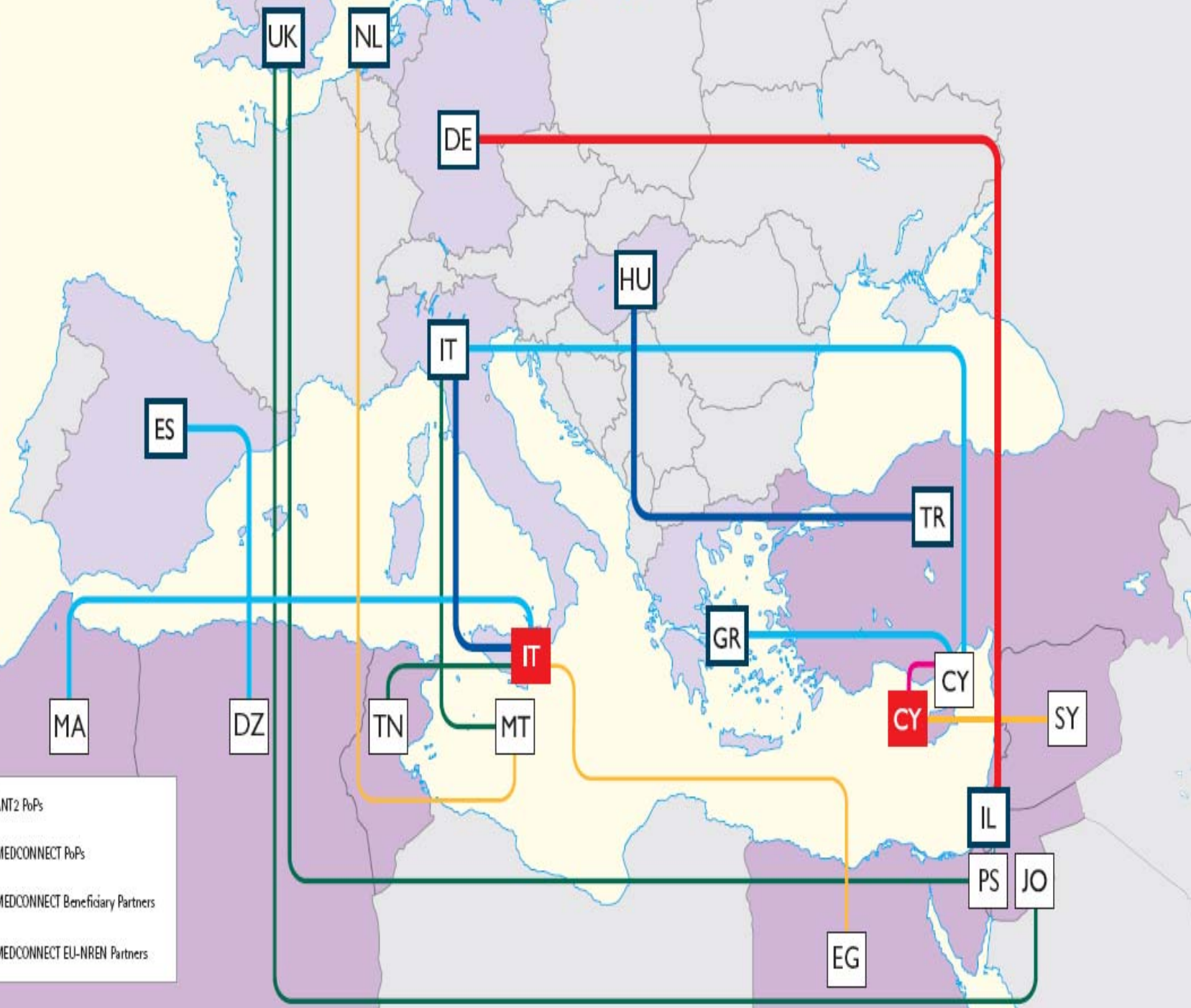
# EUMEDCONNECT 2

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- Operated by DANTE
- Built on the success of the EUMEDCONNECT
- Launched in November 2008 in Amman
- The EC contribution is 4 M Euro, and the partners contribute 50% of the cost of the connection.
- More than 2 M users in around 700 institutions are connected
- The project will last until late 2010
- Many research and education projects are using this connection
- More cooperation proposals are submitted,
- May initiatives started.

- CY Cyprus
- DE Germany
- DZ Algeria
- EG Egypt
- ES Spain
- GR Greece
- HU Hungary
- IL Israel
- IT Italy
- JO Jordan
- MA Morocco
- MT Malta
- NL Netherlands
- PS Palestinian Territories
- SY Syria
- TN Tunisia
- TR Turkey
- UK United Kingdom

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|---|---|
| <span style="color: red;">■</span> 2.5 Gbps       | <span style="border: 2px solid black; padding: 2px;"> </span> GÉANT2 PoPs                         |
| <span style="color: blue;">■</span> 622 Mbps      | <span style="background-color: red; color: white; padding: 2px;"> </span> EUMEDCONNECT PoPs       |
| <span style="color: lightblue;">■</span> 155 Mbps | <span style="background-color: #d8bfd8; padding: 2px;"> </span> EUMEDCONNECT Beneficiary Partners |
| <span style="color: magenta;">■</span> 100 Mbps   | <span style="background-color: #f0f0f0; padding: 2px;"> </span> EUMEDCONNECT EU-NREN Partners     |
| <span style="color: green;">■</span> 45 Mbps      |   |
| <span style="color: orange;">■</span> 34 Mbps     |   |



# Rome Declaration (September 2006)

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Therefore the representatives of the Arab Mediterranean NRENs Declared:

- The necessity for the existence of national research and education networks
- The desire to further develop and consolidate the Mediterranean EUMEDCONNECT network .
- That it is desirable to establish a Mediterranean research and education network based on the existing research networks in several countries.
- To cooperate in the development and consolidation of national research and education networks in those countries in the Mediterranean region, where they do not yet exist or where they have recently been founded
- To create a Mediterranean coordination space for the integration and regional coordination of the national research and education networks.

## إتحاد شبكات البحث العلمي والتعليم للدول العربية المتوسطية

# Consortium of Arab Mediterranean Research and Education Networks (CAMREN)

- The consortium was introduced as an action point for the Rome Declaration



# CAMREN

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- Currently; the CAMREN proposal include the NRENs of the following Countries:
  - Syria
  - Palestine
  - Jordan
  - Egypt
  - Algeria
  - Morocco
  - Tunisia
- Other countries: Libya and Lebanon are also invited

# CAMREN, Steps...

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- A consortium agreement was prepared by the directors and representatives of the NREN of these Countries. Amman was selected to host the consortium
- The agreement was forwarded to the related government body of these countries, and most of the countries have agreed to sign.
- Due to many changes of Ministers and officials in some countries; the signature of the consortium has been delayed and no date is currently decided
- Jordan took the initiative of writing to the Ministers of Higher Education in these countries to encourage them to take action in this regard, the letter was sent in April 2008
- EUMEDCONNECT 2 Project offered support to establish the consortium

# Major Concerns

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- Financial support
- Technical Support
- Applications
- Promotion
- Bureaucracy

# Recommendation

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- It is very necessary to establish a large scale network to connect the research and education networks in the different Mediterranean countries in one regional network to facilitate the cooperation in education and research in the Mediterranean.
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- Many thanks to the EUMEDCONNECT Project and its successive EUMEDCONNECT2 for supporting the regional connectivity (2004-2010)
- Efforts towards establishing this network should be supported. Especially CAMREN, the Consortium of Arab Mediterranean Research and Education Network





# Thank You

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