



## The Al Khawarizmi Initiative

Connecting Arab World R&E networks and applications at lambda speeds

Update on regional subsea cable connectivity  
Cooperation with ASREN

ME SIG meeting  
Muscate, Oman, Nov 30 – Dec 1 2010

Yves Poppe  
Dir IP and R&E Strategy



## The Tata Group

- 140-year old largest private sector group
- \$70.5 billion in revenues, 61% of business from outside of India
- 350,000 employees
- 3% of India's Gross Domestic Product (GDP)
- Conglomerate comprising 93 operating companies
- Acquired VSNL in February 2002
- TATA Steel acquired Corus for \$23 billion
- TATA Motors acquired Jaguar – Land Rover
- Tata Consultancy Services (TCS)
  - Asia's largest software & systems integration services company
  - 33 countries across 5 continent



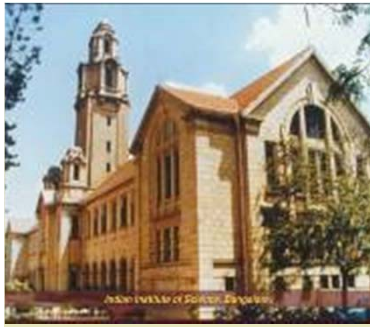
TATA CONSULTANCY SERVICES



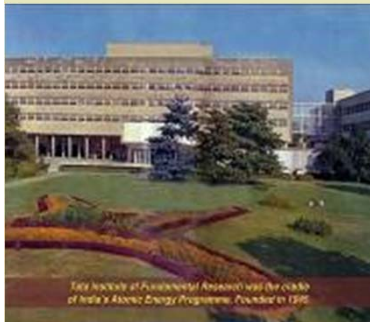
TATA POWER

TATA STEEL





Indian Institute of Science, Bangalore



Tata Institute of Fundamental Research, Mumbai



National Center for the Performing Arts, Mumbai

**GROUP**

66% Equity of Tata Sons in Public Trusts

**Sir Dorabji Tata Trust**

**Sir Ratan Tata Trust**

**ACTIVITIES**

- **Endowments for Creation of National Institutions:**

(1911) Indian Institute of Science

(1936) Tata Institute of Social Sciences

(1941) Tata Memorial Hospital

(1945) Tata Institute of Fundamental

Research

(1966) National Centre for the Performing

Arts

- **Development assistance in water harvesting, medical research, microfinance, bio-diversity**

**Tata Council for Community Initiatives**  
Facilitating Role for companies' CSR activities

- **Triple Bottom-line Global Reporting Initiative**
- **UN Global Compact**
- **Tata Index for Sustainable Development**

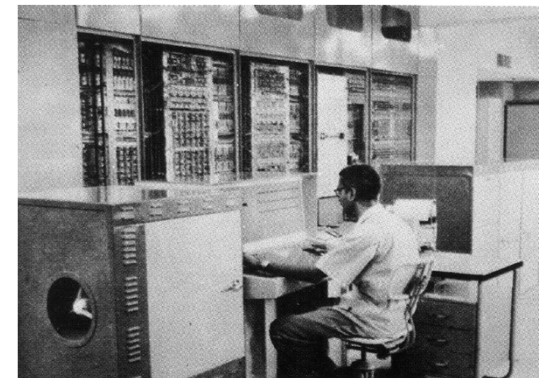
**COMPANIES**

- **Annual Spend ~ USD 85 Mn:** Social Welfare Expenditure budgeted before preparation of P&L account
- **Commitment to adjacent communities incorporated in company Articles of Association**
- **Active volunteering programme:** over 10,000 volunteers
- **Company Examples:**
  - **Tata Steel:** HIV / AIDS Programme - Global Business Council winner
  - **Tata Consultancy:** Adult Literacy Programme



## टाटा मूलभूत अनुसंधान संस्थान TATA INSTITUTE OF FUNDAMENTAL RESEARCH

- Founded in 1945 located in Mumbai
- Developed TIFRAC, the first Indian computer in 1956
- Obtained full university status in 2003
- Focus on mathematics and natural sciences
- very active in High Energy Physics and astronomy
  - Connectivity with CERN
  - e-VLBI connectivity for NCRA in Pune



**TIFRAC-2**

October 20th 2010 :

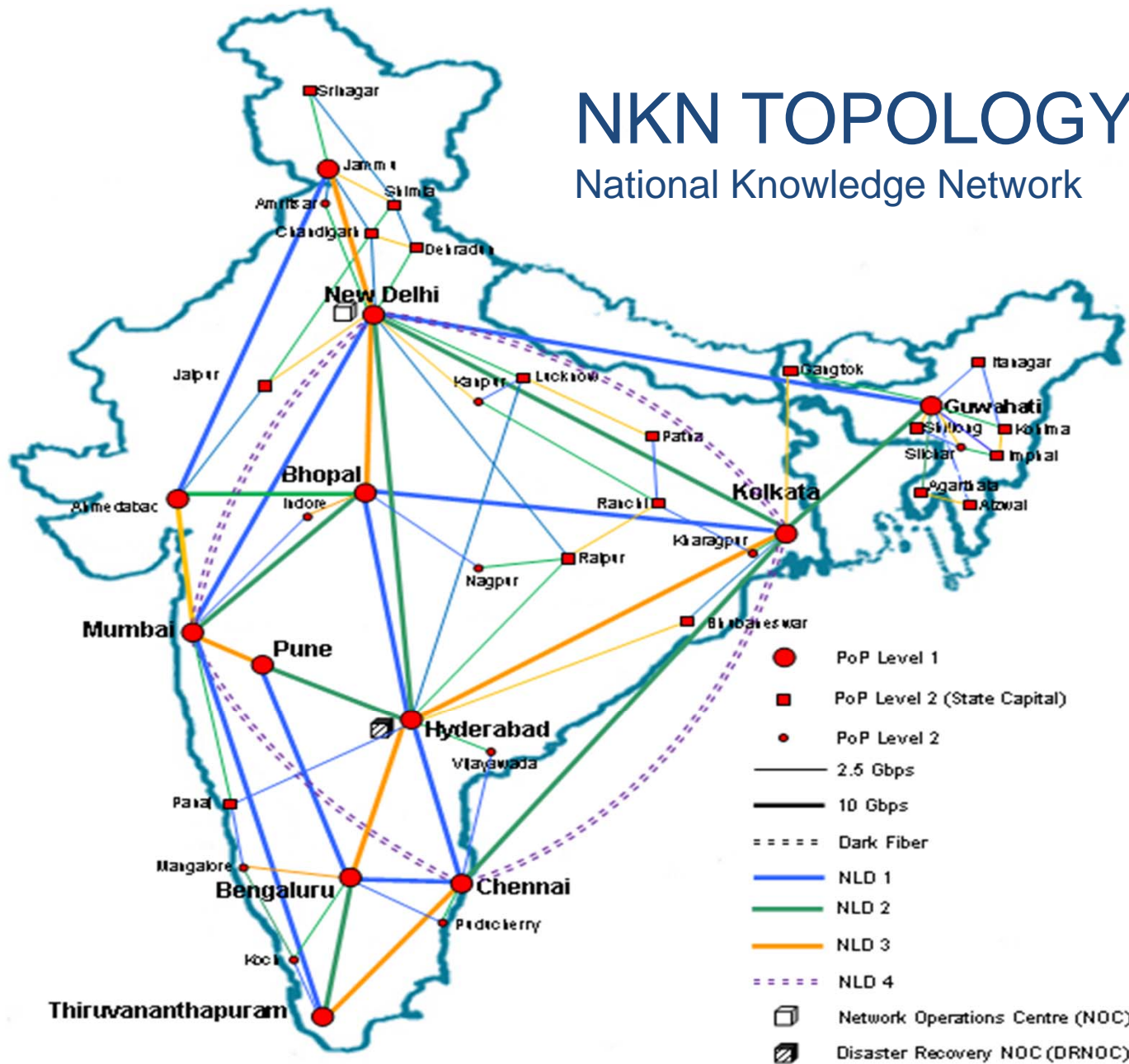
Prime Minister Manmohan Singh laid the first stone of the TIFR Hyderabad campus.

As reported by Topnews.in he emphasized the need for getting higher human resources in the area of science and technology to sustain competitive advantage in the knowledge economy. He said that the scientific and technological skill of a nation is a most important determinant of its state of development. Improvement and knowledge will be the key factors in a nation's progress. He called for amplification of scientific infrastructure, representation the brightest minds to scientific explore and creating institutions of the highest standards of quality.



# NKN TOPOLOGY

National Knowledge Network



## The Al Khawarizmi R&E Network strategic objective

**To connect all Centres of Higher Education, Learning and Research in the Arab World to each other and to the rest of the world through a high speed world class R&E network and usher a new era of science and progress.**

## Al Khawarizmi : why now ?

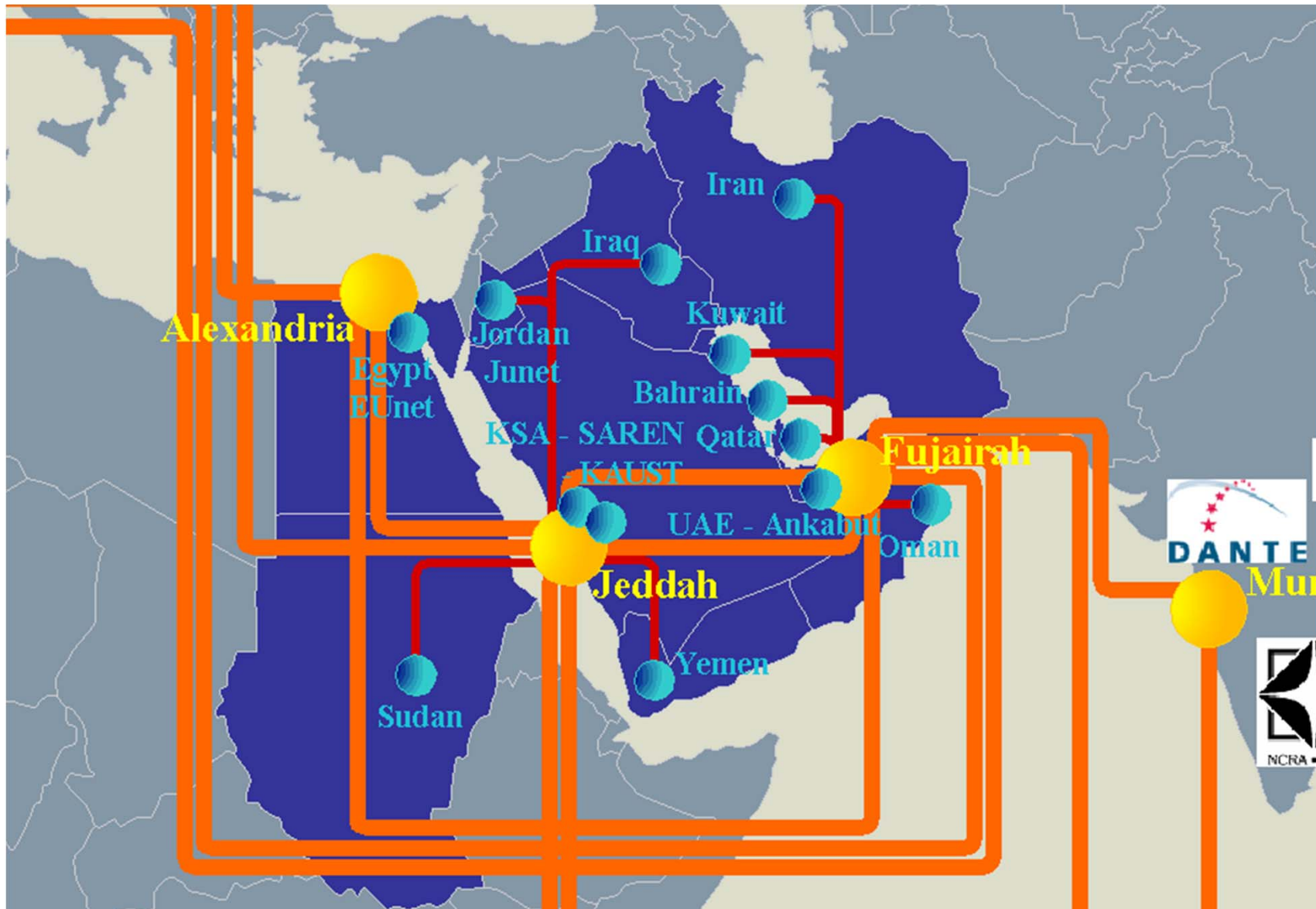
- 1)The Arabic peninsula has seen an number of advanced R&E networks emerge in recent years, most notably in Qatar with QF, the United Emirates with Ankabut and the Saudi Kingdom with KAUST and SAren and other countries in the region following closely.
- 2)A series of new cables in the region will make it possible to connect economically the national R&E networks in the region and beyond.
- 3)The time is right for a Telecommunication Providers partnership with the Research and Education Community to evolve the region as a world class R&E Communication hub between East and West.



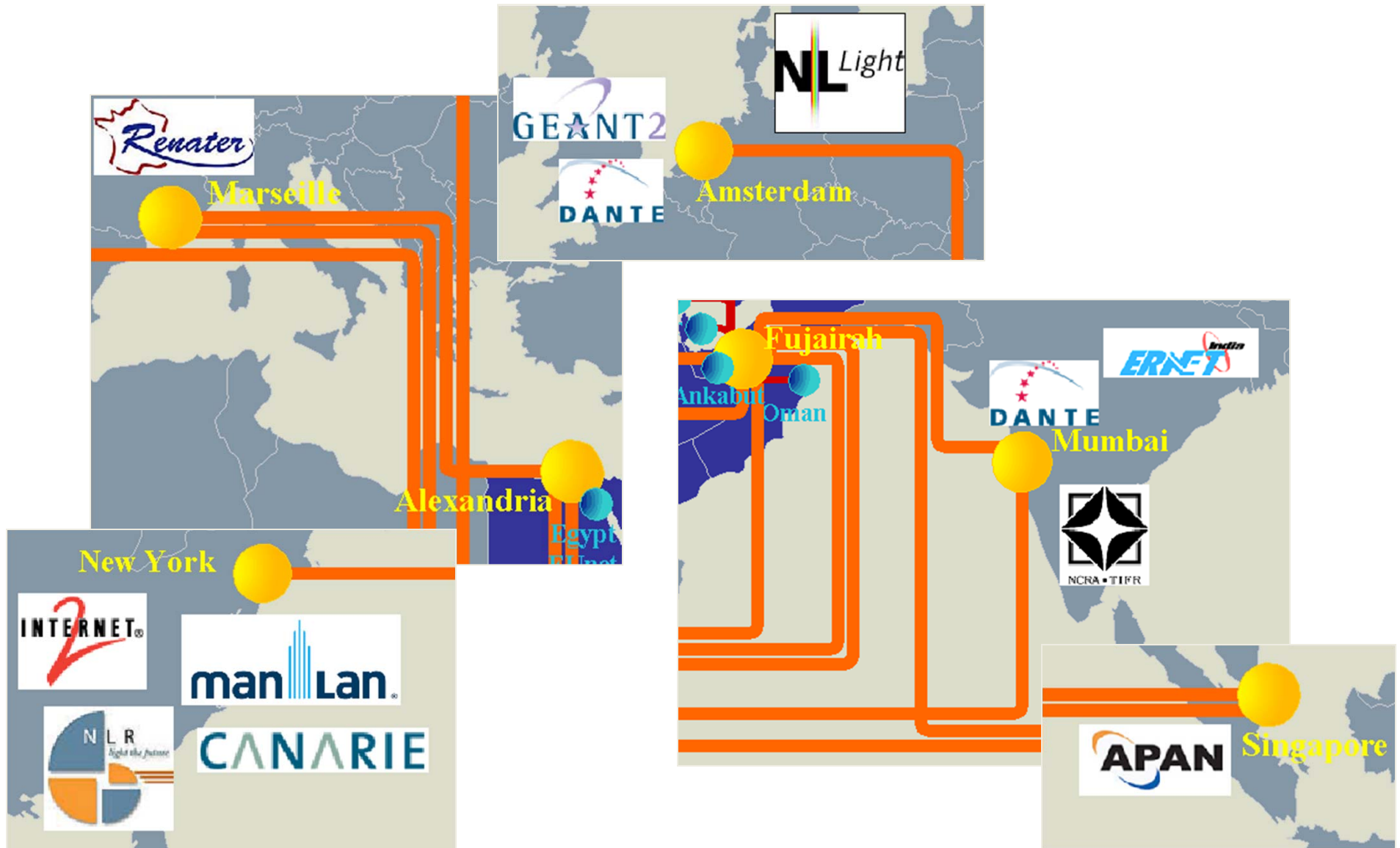
The region will see an extraordinary amount of capacity activated during the next 12 months

CABLE	PROBABLE RFS DATE
IMEWE	december 2010
TE NORTH	january 2011
TGN-EA Jeddah landing	February 2011
EIG	Q3-Q4 2011
TGN-GC	Q3-Q4 2011
GBI	Q3-Q4 2011
MENA Orascom	Q3-Q4 2011

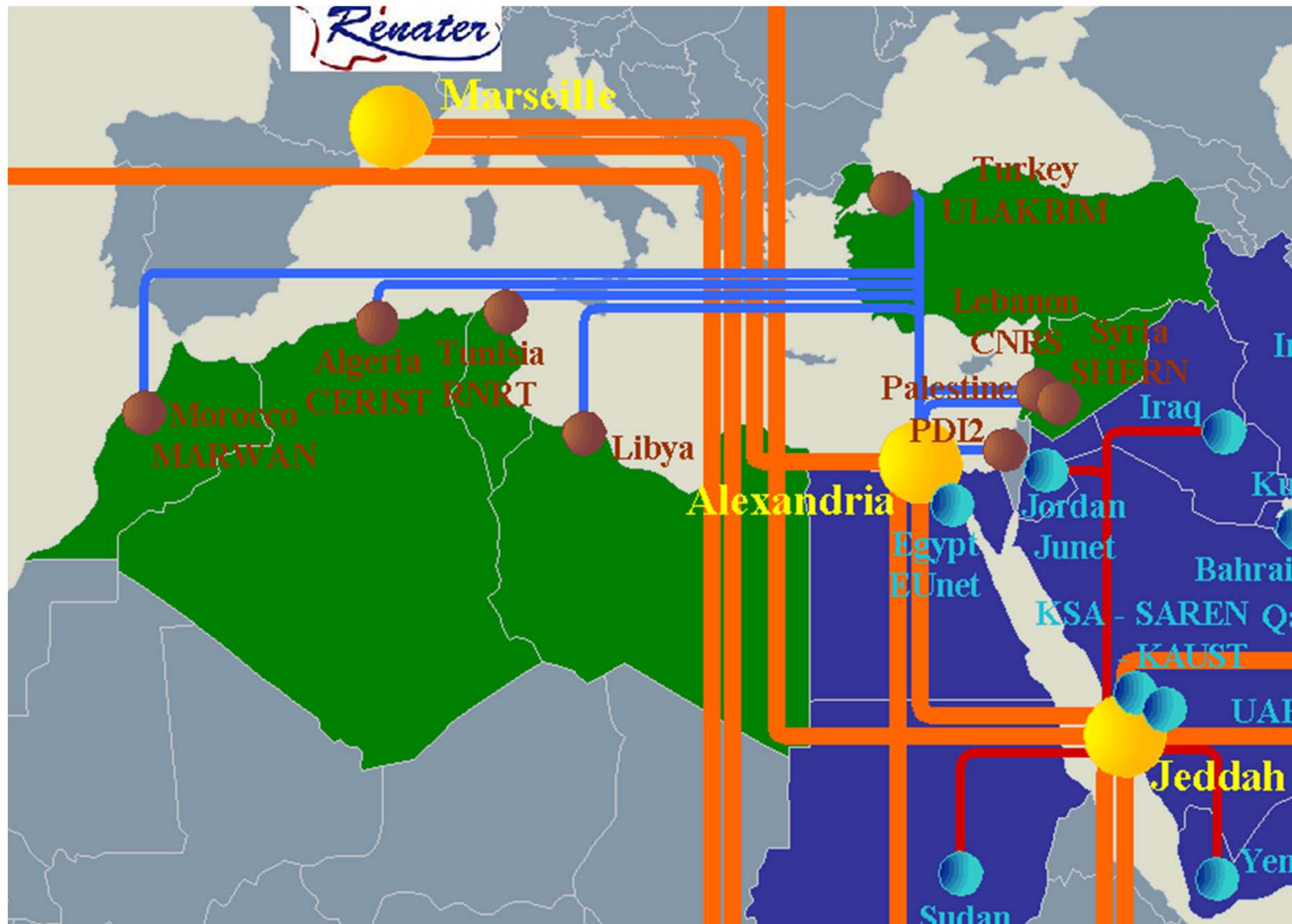
## Gulf and Red Sea R&E Connectivity



## External Connectivity



## Mediterranean R&E Connectivity

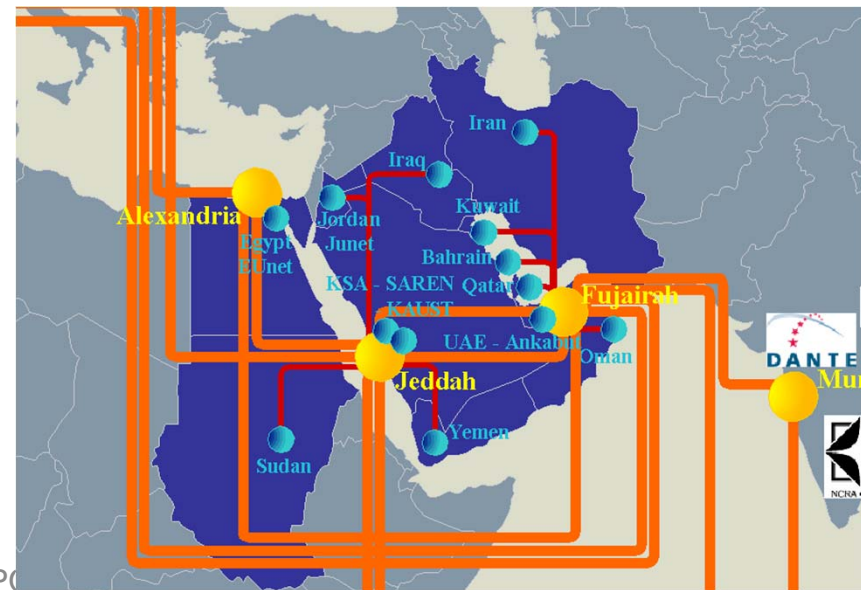
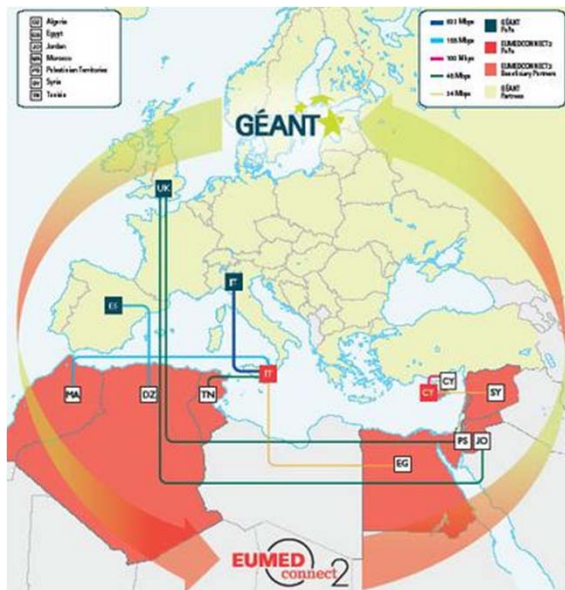


## ASREN initiative

- Successor project to the EU funded Eumedconnect2 which covers 7 Arab countries: Algeria, Egypt, Jordan, Morocco, Palestine, Syria and Tunisia.
- The ASREN initiative was announced in Brussels in March 2010 by Mr. Talal Abu-Ghazaleh, Chair of UN Global Alliance for ICT and Development (GAID) to promote an Arab States R&E network extending beyond the 7 original Eumedconnect countries . ASREN will benefit from some EU funding, will also promote the GAID objectives and has the support of the Arab League. More at <http://www.asren-launch.net/>
- ASREN will be formally launched in Cairo december 8th 2010 at an event taking place at the Arab League Headquarters under the patronage of HE. Amre Moussa, Secretary General of the League of Arab States.

## The complementarity of the ASREN and Al Khawarizmi initiatives

- Eumedconnect2 allows for Algeria, Egypt, Jordan, Morocco, Palestine, Syria and Tunisia R&E to connect to the pan-European Dante R&E network.
- Combining ASREN with its early Mediterranean focus and Al Khawarizmi, initially more centered on the Arab Peninsula, will, God willing, accelerate the creation of an Arab World Global Research and Education Network.



## Elements for a proposed joint action plan

- Al-Khawarizmi and ASREN will prepare a high level pan Arab R&E network layout taking into account existing and planned cable capacity.
- The results and recommendations will be presented in a series of presentations and meetings with various R&E entities and communication carriers in the region starting in february 2011.
- The objective is to have the commitment of a number of parties to work together and collaborate on a tender preparation and initial launch for end 2011 or early 2012 and achieve full regional connectivity a year later.

# Discussion

