



# ASREN Operation, Management, Implementation, and Actions

## Financing and Fund Raising

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ASREN Shareholder's Meeting – Amman, 26.07.2011

# Outline

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- Background – Research and education networking
- ASREN historical perspective
- ASREN Network
- Operations and management
- Implementation planning and actions
- Finance and fund raising
- Challenges and opportunities

# Research and education networks

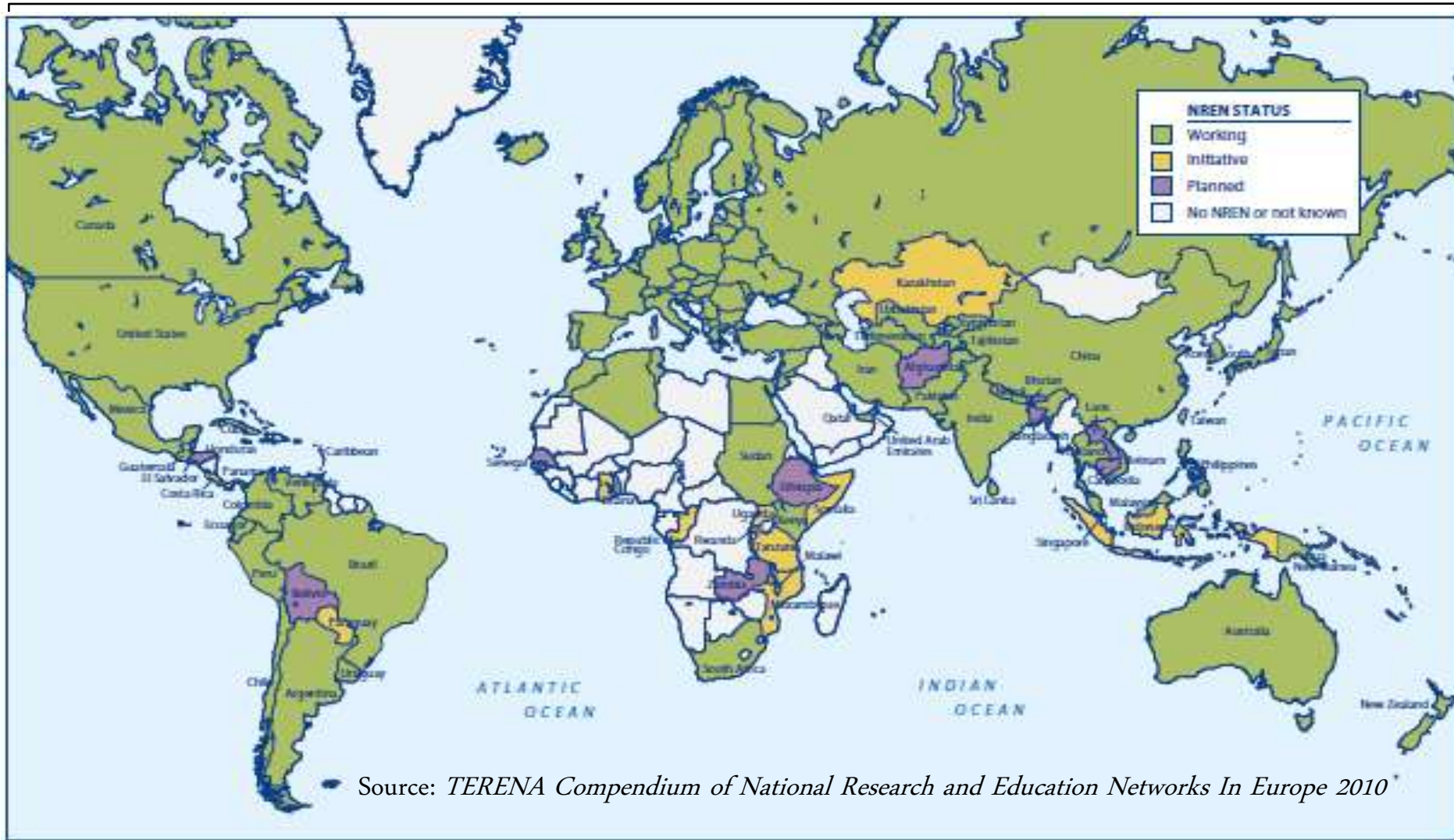
- National Research and Education Networks(NRENs) dedicated networks connecting universities and research centers at the national level

*Examples: Algeria (ARN), Egypt (EUN/ENSTINET), Jordan (JUNET), Morocco (MARWAN), Qatar (Qatar FN), Syria (HIAST), Tunisia (MRST), U.A.E. (ANKABUT), Palestinian Terr. (PadI2), Saudi Arabia (SREN-KAUST), Lebanon (NCSR)*

- Regional Research and Education Networks (RRENs) are Dedicated networks which connect NRENs

*Examples: EU GEANT, Latin America CLARA, Asian Pacific APAN, US Internet2, Canada CANARI, South Africa UbuntuNet Alliance, etc..*

# Status of NRENs on the world map



# Why dedicated networks ?

- Fast and efficient state-of-the-art network, services, tools and applications to boost productivity
- Minimize costs and leverage economies of scale by using available research, academic and technical resources
- Growing demand for high-performance computing and eScience initiatives
- Common culture of R&E community, collaborative research

# ASREN: Historical perspective

- EUMEDCONNECT, 2004 --> [1], [2], [3?]
- PAN Arab Network, 2005
- Rome Declaration 2006 - CAMREN
- NAP, the Network Access Points 2007
- ASREN, 2010
  - EUMED - Brussels, March 30
  - League of Arab States – Cairo, December 8
- ASREN GmbH - Dusseldorf, June 2011
  - Abu-Ghazaleh & Consulting GmbH
  - Jordan University Network
  - Moroccan CNRST





# ASREN network

- To connect all Universities, Educational Institutions, and Research Centers in the Arab World to each other, to the Mediterranean, Europe, North America, and the rest of the world through a high speed R&E network, towards a new era of science”



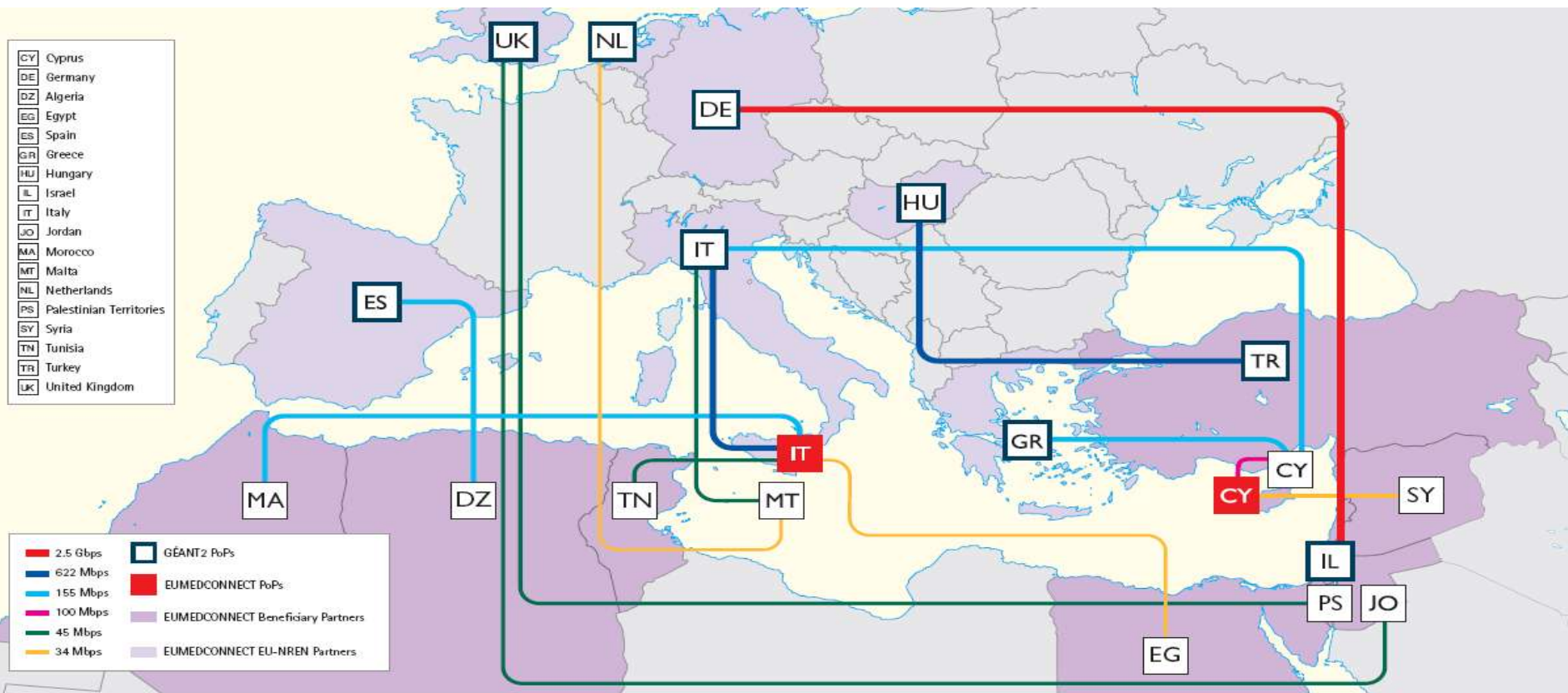
# The drivers

- More and more MED/Arab R&E networks emerged in recent years
- A series of new cables in the region were laid (e.g. JADI), so become more economical to connect NRENs in the region and to the world
- MED/Arab e-Infrastructure to evolve in the region as an R&E Communication link between East and West.



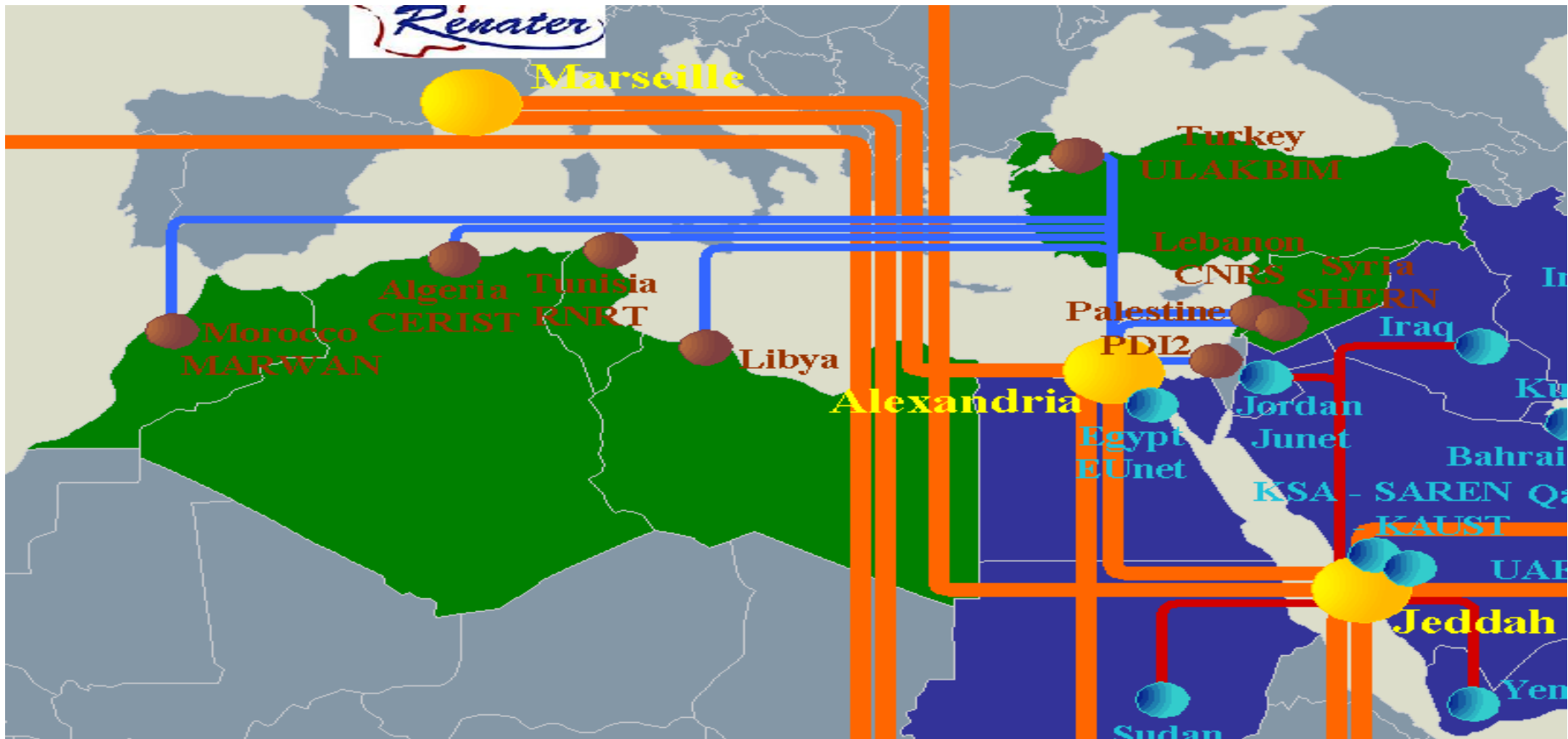
# Current status of ASREN network

Builds on the existing EUMEDCONNECT network which connects some Arab Mediterranean countries to Europe



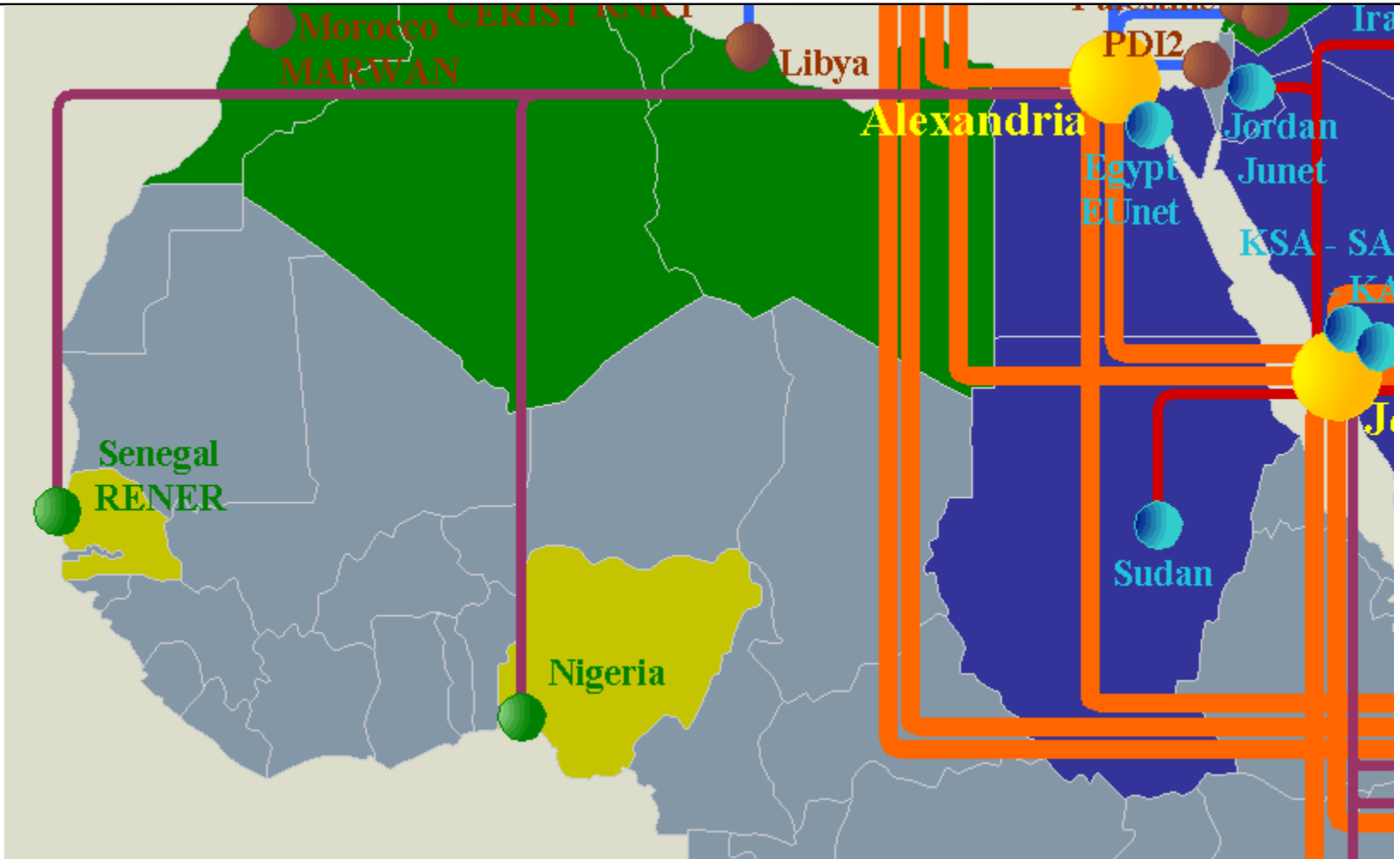
# Future: To Europe

To become the Arab Regional Communications Infrastructure for R&E connecting to the world



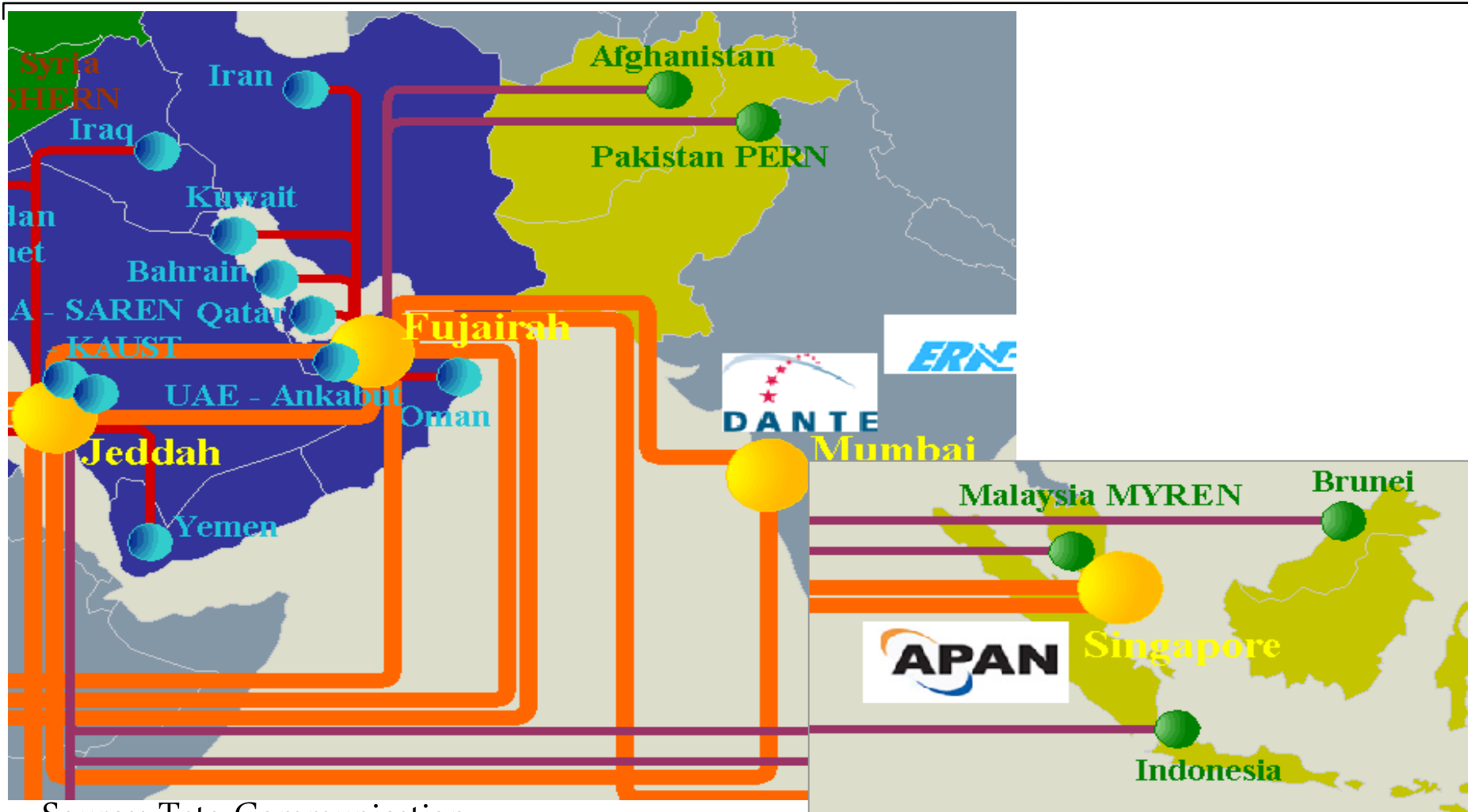
Source: Tata Communication

# To Africa:



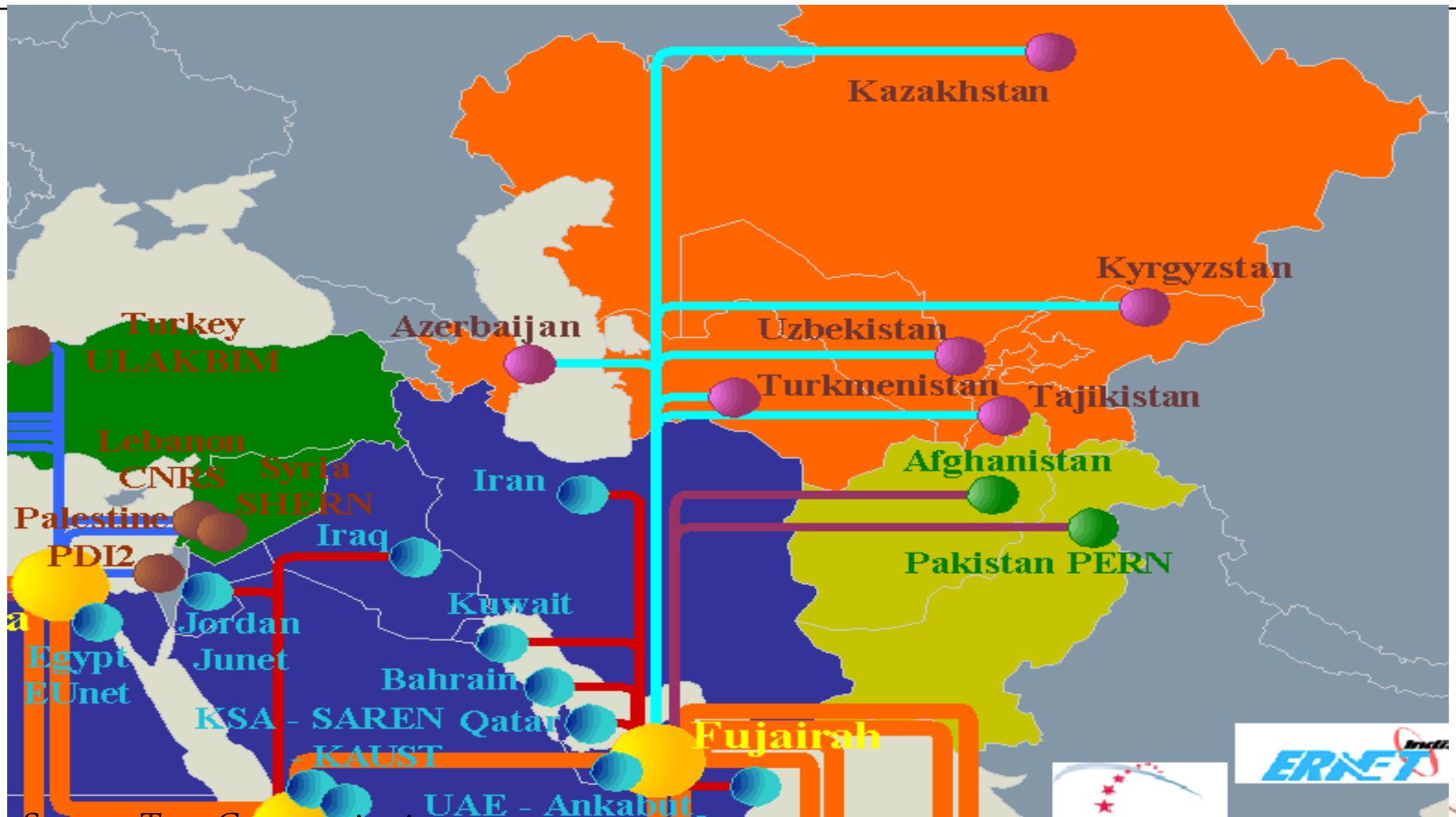
Source: Tata Communication

# To Asia:



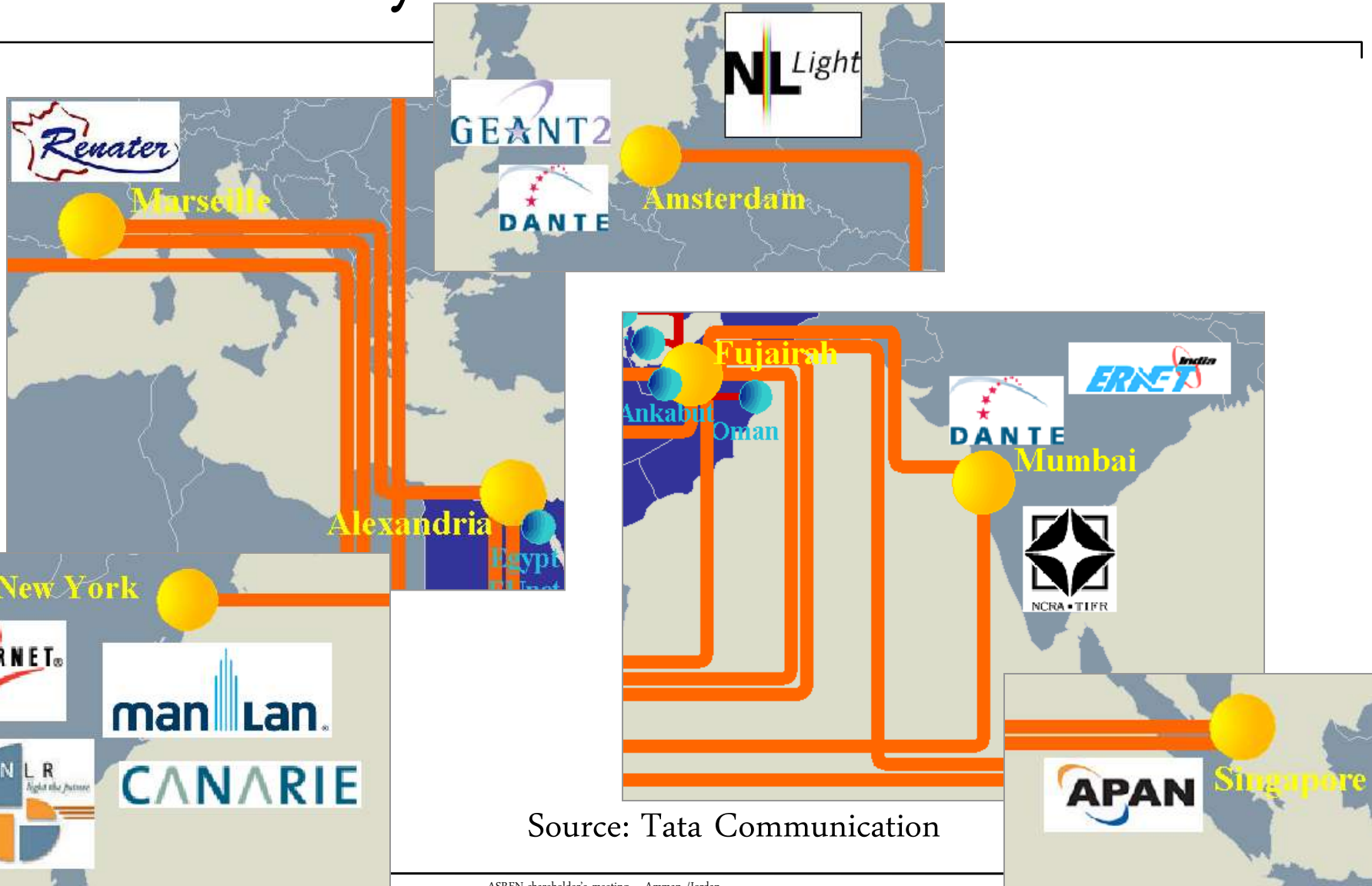
Source: Tata Communication

# To central Asia:



Source: Tata Communication

# External connectivity



Source: Tata Communication



# Mandates

To build, maintain and consolidate **regional** e-Infrastructures dedicated to e-Science and education across the Arab Countries

Regional network that Interconnects the NRENs of the Arab Countries

Harmonization of policies and standards

Advocating at the regional level amongst decision makers and stakeholders

To facilitate the **collaboration** and cooperation among the researchers and academicians in the Arab region

Supporting NRENs to implementing technological solutions

Exchange of expertise and best practices

To contribute to create and sustain **National** Research and Education Networks (NRENS)

Knowledge resources, exchanges, Arabic contents

Usage of e-Infrastructures and services

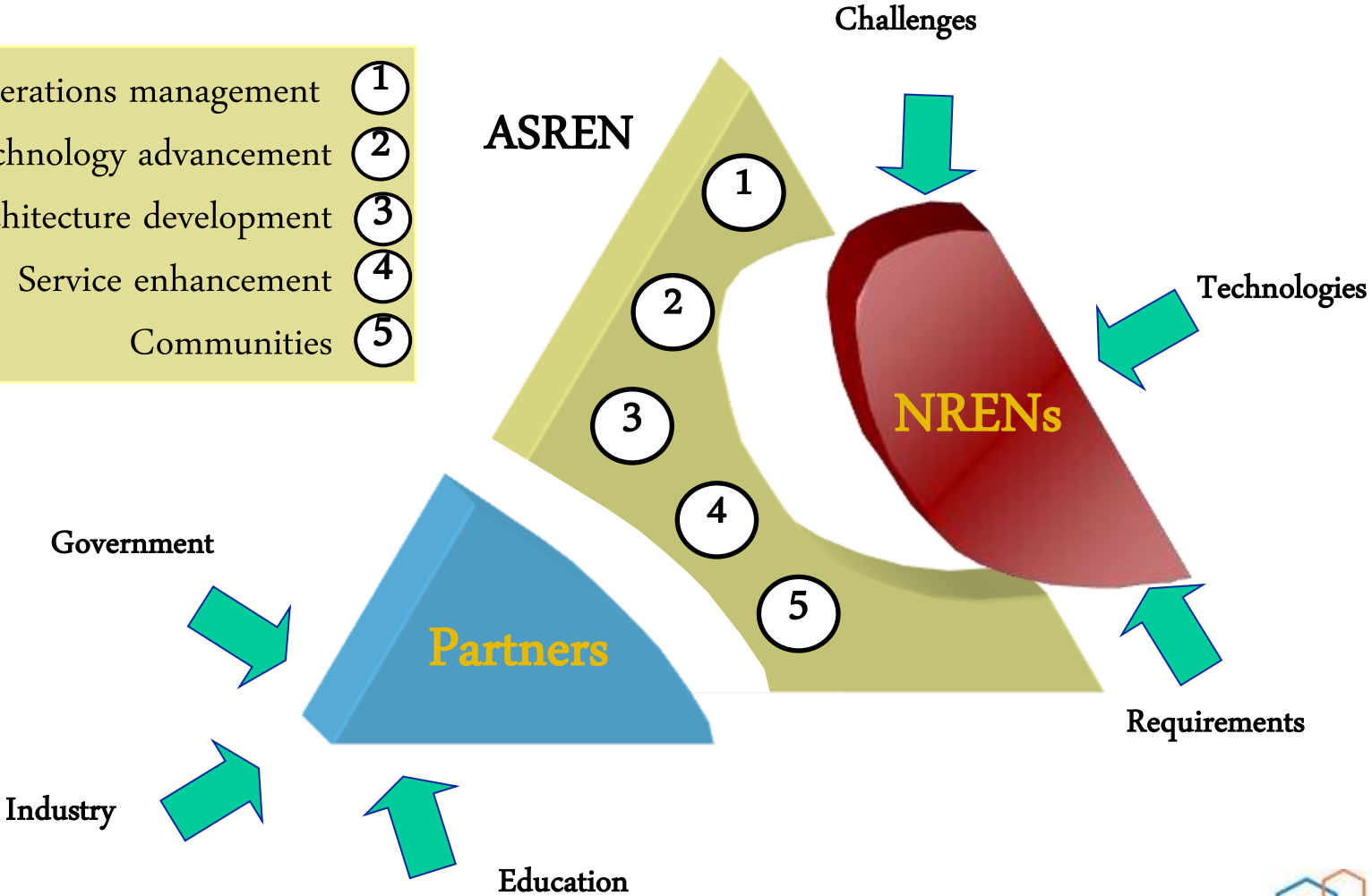
Regional partnerships joint research

# Programs and collaboration

- Enhance and accelerate research, enable collaboration, improve access to knowledge, and contribute to the development of e-infrastructure and e-research in the Arab region
- Shared e-Infrastructure for needs of research communities
- Applications and services
- Active engagement in EU funded projects: EUMEDCONNECT, CHAIN, EUMEDGRID Support
- International collaboration is key for success through sharing of experiences

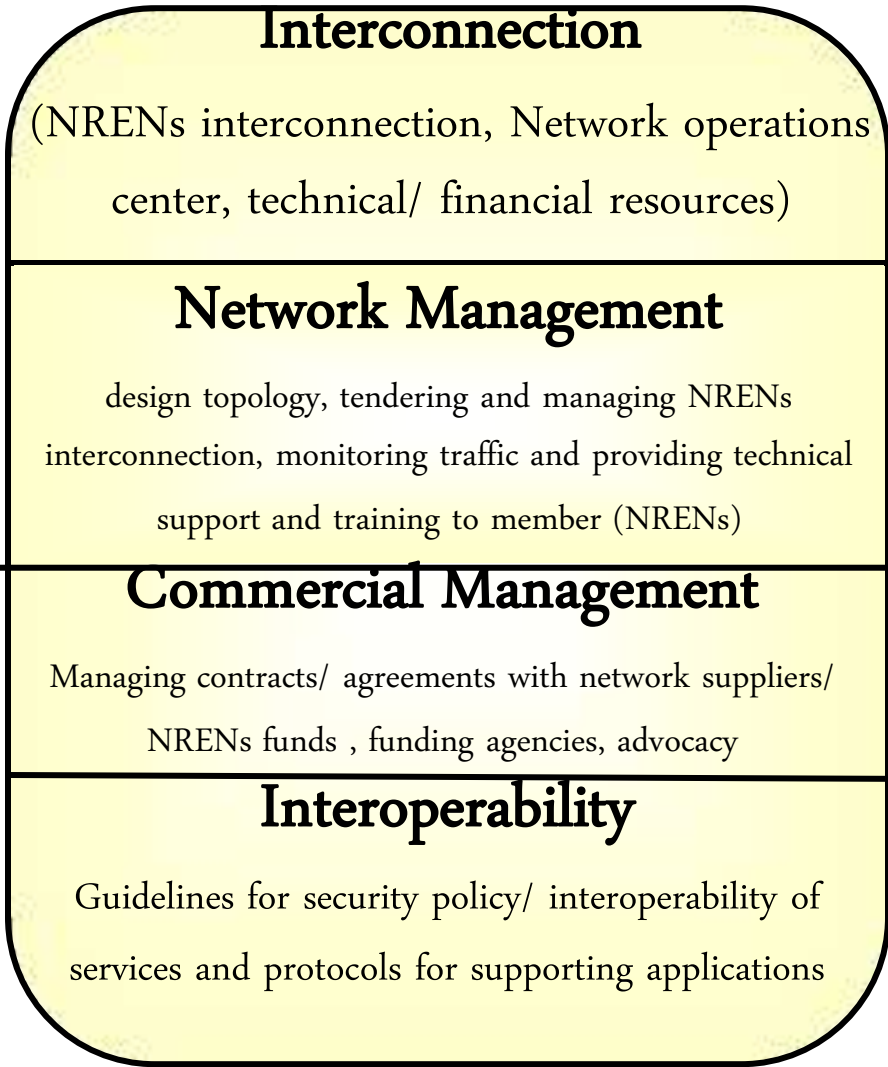
# Eco-system model

- Operations management ①
- Technology advancement ②
- Architecture development ③
- Service enhancement ④
- Communities ⑤

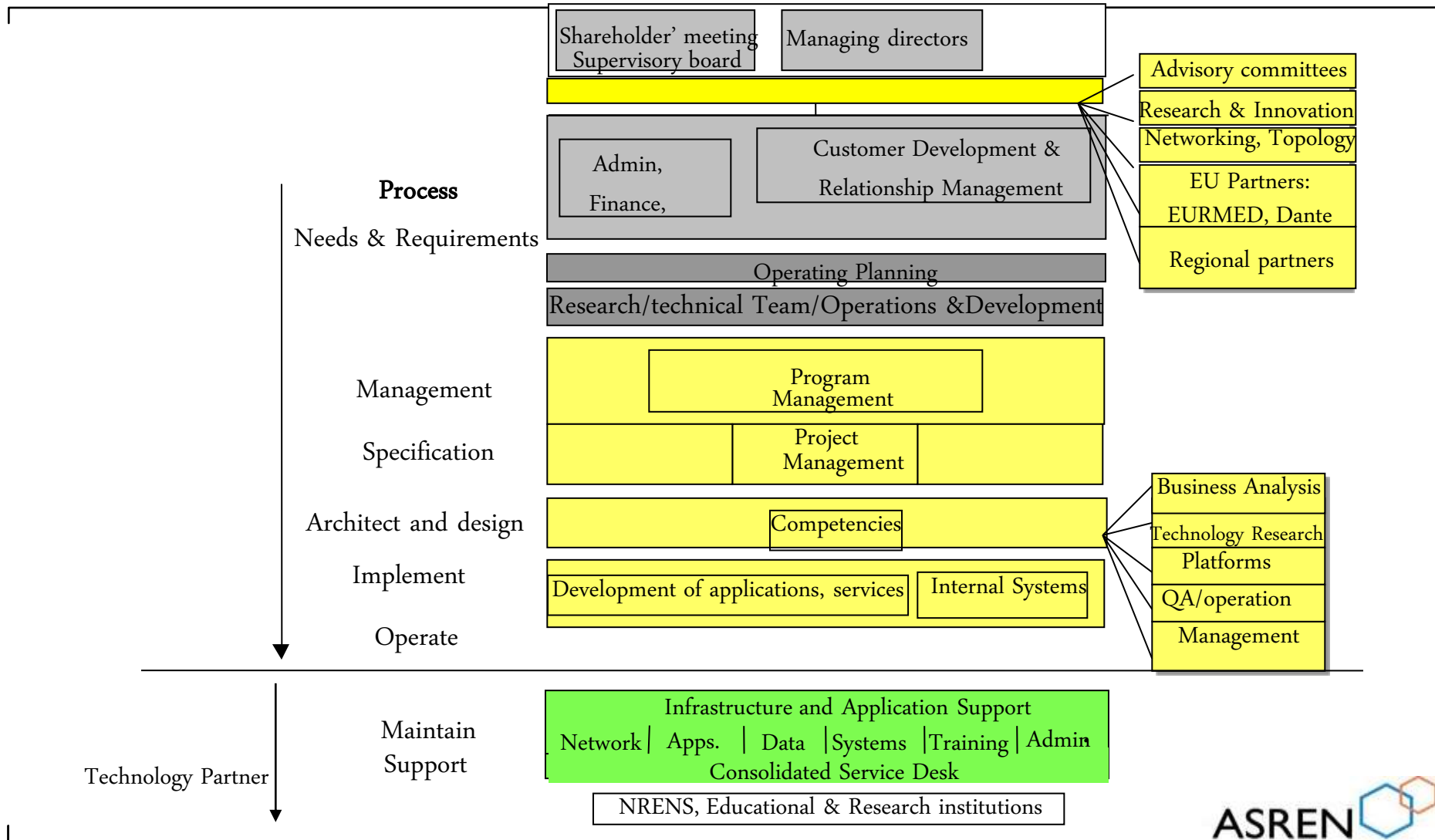


# Operations and functions

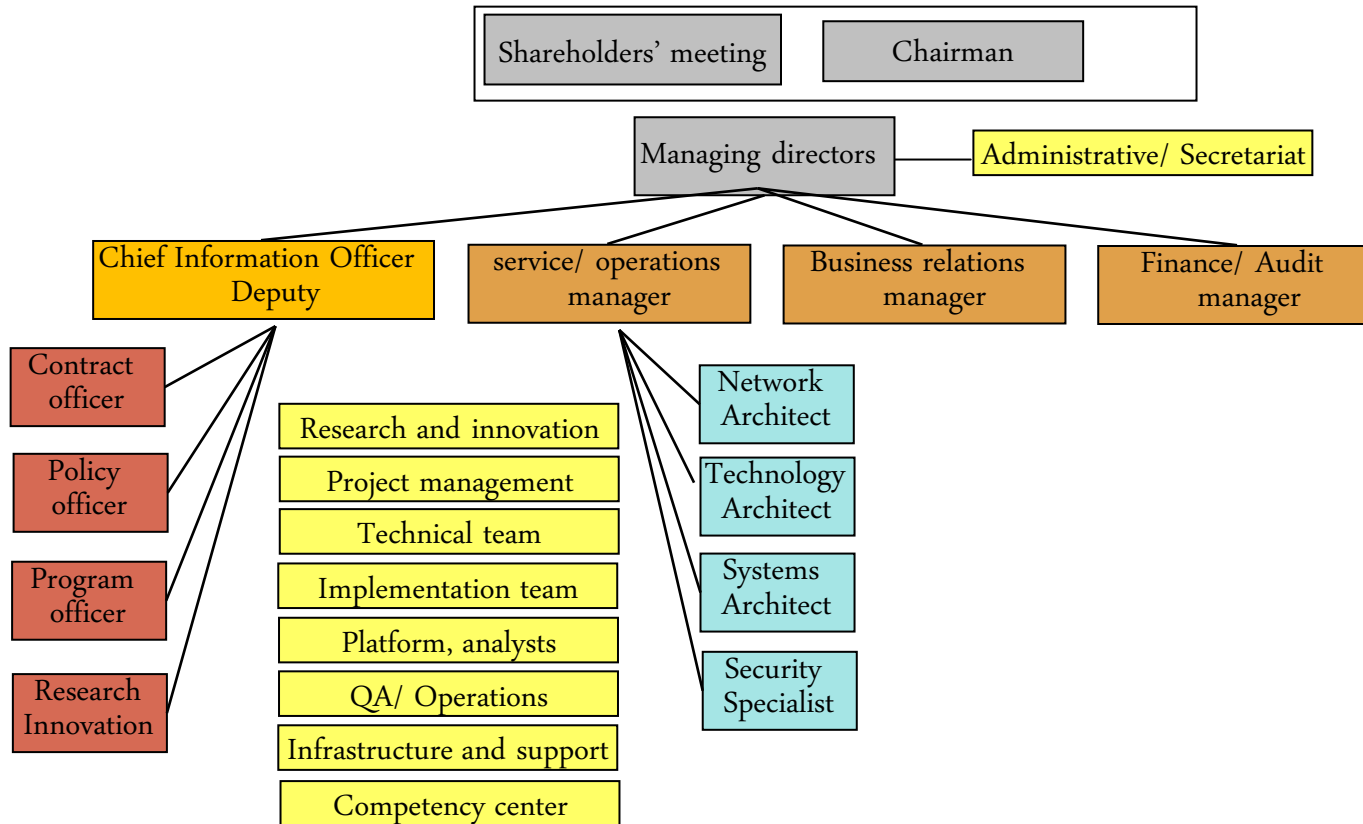
Core Functions



# Functional breakdown

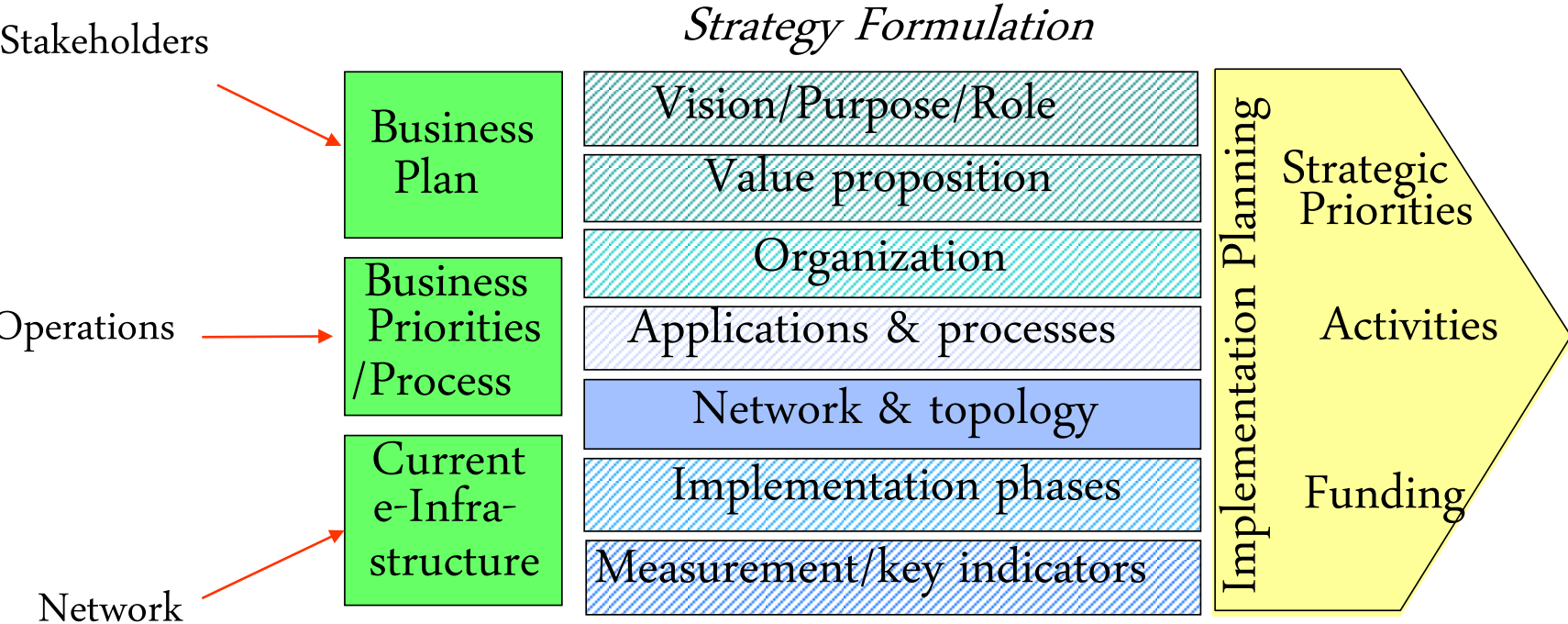


# Management structure





# Strategic/ Implementation planning



# Achievements made in the ShortTerm

1. ASREN is a legally registered Organization in Germany/Registration No. HRB 65762, on June 3, 2011, with Shareholders:
  - Abu-Ghazaleh & Consulting GmbH
  - Jordan University Network
  - Moroccan CNRST
  
2. Clear Transition Plan and Successful Technical Operations
  - Tendering process in EUMEDCONNECT3
  - Proposal and contractual process with EU
    - EUMEDCONNECT3
    - CHAIN Project



### 3. ASREN secretariat and its administrative operations:

- Initial setup of HQ facilities hosted at TAGOrg offices in Amman with all kinds of operational support [Processes, Administration, HR, Technical, Communication, Design, Web, Prints, Logistics, Maintenance, Post, Accounting, Legal, Media, etc.)
- Clear administrative procedures following TAGO system
- [www.ASRENOrg.net](http://www.ASRENOrg.net) website/portal

### 4. Coordinated ASREN meetings and follow up operations and decisions

- ASREN Launch
- ASREN Shareholders' meeting
- ASREN 1<sup>st</sup> Annual meeting – eAGE 2011



## 5. Established advisory committees

- Technical/ Infrastructure committee
- Research committee

## 6. Outreach and fund raising

- Business plan developed
- List of potential donors
- Workshops and meetings

# Planned activities EUMEDCONNECT3 project – MediumTerm

## **Activity 1: Network Development and Transition**

Act 1.1 – Setup EUMEDCONNECT 3 Network Topology

Act 1.2 – Capacity upgrades to partner countries

Act 1.3 – EUMEDCONNECT 3 interconnection costs

Act 1.4 – Expand to widen regional network coverage

Act 1.5 – Networking equipment

Act 1.6 – Technical board meetings

Act 1.7 – Setup ASREN Network Management Center

## **Activity 2: Applications Support and Promotion**

Act 2.1 – ASREN Annual meetings

Act 2.2 – Project collaboration efforts realized

Act 2.3 – Digital repository, knowledge, and Content

Act 2.4 – Soft and print promotional material

Act 2.5 – Field visits for networking and promotion

Act 2.6 – Full-fledged web portal

Act 2.7 – Research and application board meetings

## **Activity 3: Capacity Building and Training**

Act 3.1 – Training Center - Specialized modules - 6

Act 3.2 – Training portal

Act 3.2 – Graduating 4 trainees/ trainers per each MED

## **Activity 4: Financial Sustainability**

Act 4.1 – Membership structure

Act 4.2 – Optimized and cost-effective ASREN topology

Act 4.3 – Road Show to Arab countries

Act 4.4 – Strong links with R&E societies at LAS

Act 4.5 – Trust fund and a program for fund raising

## Arab States Research and Education Network GmbH Budget [2010/2011]

# Funding

- Start-up phase (2010/2011)
- Deficit covered by Talal Abu-Ghazaleh Organization

Expenses (€)		Revenues (€)	
Wages/expenses (TAGO Team contributions)	50,760	EUMEDCONNECT 2 Support	45,800
Payroll expenses (Social security, taxes, etc.)	8,122	ASREN Launch Sponsorship	29,050
Outside services (logistics)	3,500		
Supplies (office and operating)	4,900	<b>Total Revenue</b>	<b>€ 74,850</b>
Repairs and maintenance	300		
Media, Web design/hosting, Advertising	17,200		
Travel and cost of stay	10,960		
Accounting and legal (including Poppek office)	21,050		
Expenses Building	10,400		
Internet, Telephone	1,850		
Utilities	1,600		
Insurance	1,667		
Taxes (real estate, etc.)			
Interest			
Depreciation			
Bank charges & auditing	450		
Conference & hospitality (ASREN Launch, meetings..)	31,250		
Other expenses (specify) - ASREN Capital	50,000		
Misc. (unspecified)	730		
<b>Total Expenses</b>	<b>€ 214,738</b>		

**Net** -€ 139,888



# Funding

- ASREN/EUMEDCONNECT3: 2011-2014

## Twelve-month cash flow

	Pre-Start	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Cash Receipt	50,000	130,029	91,389	505,159	136,389	91,389	505,159	91,389	91,389	505,159	91,389	91,389	537,359
Cash Paid	0	90,220	20,220	776,543	41,608	12,090	763,235	22,200	8,712	757,090	46,699	10,717	812,447
Cash Available	50,000	89,809	160,978	-110,406	-15,625	63,674	-194,402	-125,213	-42,537	-294,467	-249,777	-169,105	<b>-444,193</b>

## 8-quarter cash flow

	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14
Cash Receipt	829,377	867,937	822,937	887,337	829,377	867,937	822,937	822,937
Cash Paid	849,685	823,308	816,423	940,230	840,377	838,100	817,385	826,382
Cash Available	-20,308	24,321	30,835	-22,058	-33,059	-3,221	2,331	-1,115

# Sources of funding

- **ShortTerm 2010/2011: €214.738 Thousand**
  - Talal Abu-Ghazaleh contribution: €139.888 Thousand
  - EUMEDCONNECT2: €45.800 Thousand
- **MediumTerm 2011/2014 – Total budget €9.29 Million**
  - EUMEDCONNECT3 [€3.29 Million at max]
  - MED NREN Partners
  - Other sources: Membership fees, Donations
  - Necessary funds/ 1<sup>st</sup> year: €444.193 Thousand
- **LongTerm 2014 and beyond – financial sustainability**
  - Membership fees, MED NREN Partners, Donations, etc.

# Challenges and opportunities

- Increasing usage of the network through applications, services, and research collaboration
- Investing in links between Arab neighboring countries
- Financial and institutional sustainability
- Political support at the regional level
- Opportunity: E-Infrastructure is essential for research collaboration among scientists [national, regional, international] → innovation → wellbeing of societies

# ASREN – A new hope and opportunity

- Wider connectivity for R&E
- Enhanced education
- Collaborative and innovative research
- Knowledge and skills development
- Better opportunities



# Looking forward

- Please share with us your thoughts and ideas towards better networking and communities at the national, regional, and international levels
- Launching online questionnaire
- ASREN Upcoming events:
  - e-AGE 2011 - Integrating Arab e-Infrastructure in a Global Environment  
December 12-14, 2011, Amman – Jordan:  
EUMEDCONNECT, Internet2, ASREN

# ASRENOrg.net



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