



ASREN - Update



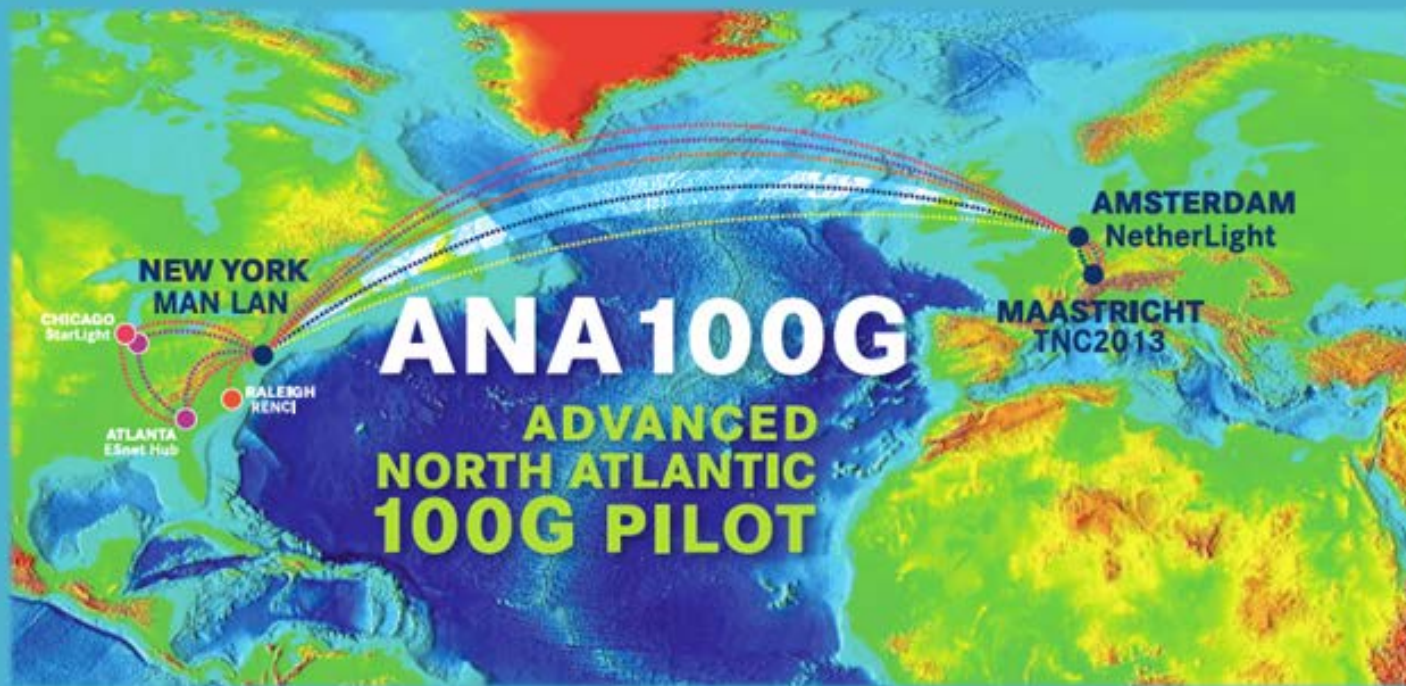
Middle East Regional Interest Group Meeting

*Doha – Qatar
10 September 2013*

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ASREN, Managing Director

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A slide presented at TNC2013 by
 Erwin Bleumink, SURFNET

WHAT **SURF** CAN DO

What are Research & Education Networks?

- Research and education networks are **dedicated** networks connecting the Universities, Schools, Research Centers, Hospitals, Museums and any other institution that may have research and education activities.
- National Research and Education Networks (**NRENs**) are established to provide connectivity and communications services for the research and education communities at the national level
- Regional Research and Education Networks (**RRENs**) are connecting the NRENs to provide connectivity and services to researchers and educators across the borders.

Main Drivers for Research Networks

- **Technological:** Satisfy high demand *eScience* initiatives, **Multimedia Collaboration**, Distributed High Performance Computing (**HPC, GRIDs**) for **Earth Sciences, High Energy Physics** (CERN, LHC...), **Bioinformatics, Computational Chemistry, Radio-astronomy, Engineering Planning** (computations, emulations & simulations), **Cultural** (archiving, collaborative digital access & processing) ...
- **Social:** Common culture of R&E community, Virtual Organizations VOs, collaborative research, tele-education, Smoothing the Digital Divides, affordable high bandwidth linkage to the Global R&E community
- **Economic:** Demand aggregators: University & school staff, students, researchers. Consolidation & control of diverse public expenditures. Promotion of Information Society (e-Government, e-Business, e-Health). Stimulation of technological & telecom markets → Competitiveness

Major Objectives for R & E Networks

- Provide scientific research and education institutions with reliable means of communication in order to facilitate ease of cooperation and coordination
- Strengthen the notion of partnership and encourage joint scientific research among communities.
- Minimize cost of research by using diversified academic and technical resources to be made available for use on the network with no need for duplicating investment.
- The fact that students, teaching staff, and researchers use such dedicated networks would eventually uplift efficiency and productivity and would boost the concept of creativity and innovation.

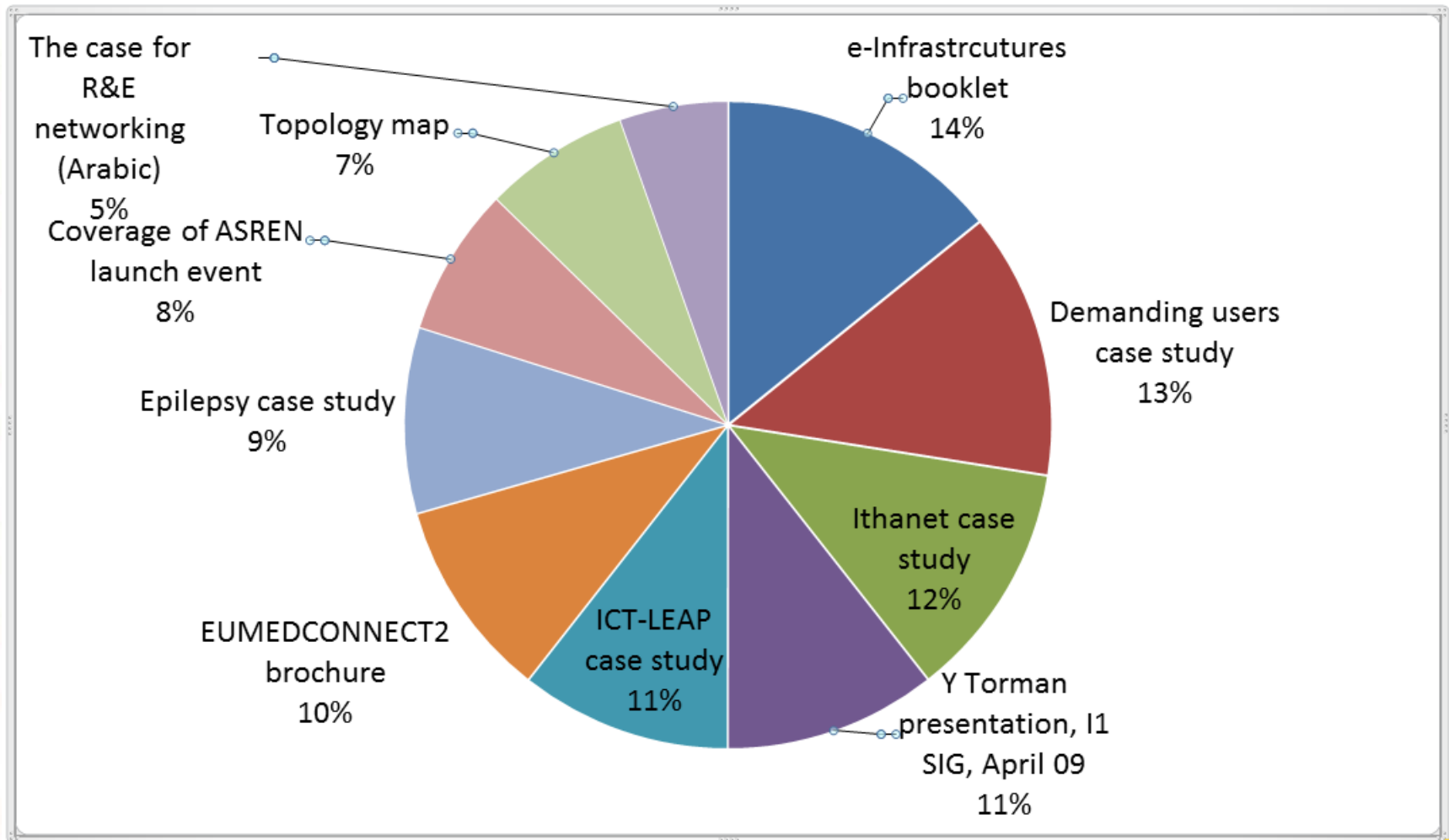
NRENs: Major Services

- Unified connectivity to all research and education institutions to provide country-wide standard communication facilities and capabilities to faculty, researchers, students, and staff, leading to better sharing of resources, information, data, knowledge and expertise.
- Consolidated Internet services, with the NREN acting as an ISP to universities and research institutions. Available statistics in some countries have shown that savings can go up to 40% on access costs, while enabling common access policies and configurations at the national level.
- Connectivity to regional research networks, providing opportunities for joint research collaboration and online education initiatives.
- Access to content, common repositories, and library resources of all universities with a unified subscription to all journals and periodicals for all Universities and research centers.

NRENs: Major Services *(continued)*

- Video conferencing services, media streaming, IP telephony, access federations, and wireless roaming for the purpose of facilitating communications, exchanges of lectures, and coordination of meetings, training and conferences between all users in universities and institutes.
- Consolidated agreements with software vendors on behalf of all Universities for licensing, with savings reaching up to 50% in some cases.
- Common caching, filtering and anti-spam and anti-virus protection services provided by NRENs to all connected institutions.
- Furthermore, an NREN can be eligible to create and manage a national Internet Exchange depending on the regulations of the Country, and provide domain name registry services and networking consultancy.

Downloads from EUMEDCONNECT2 Website



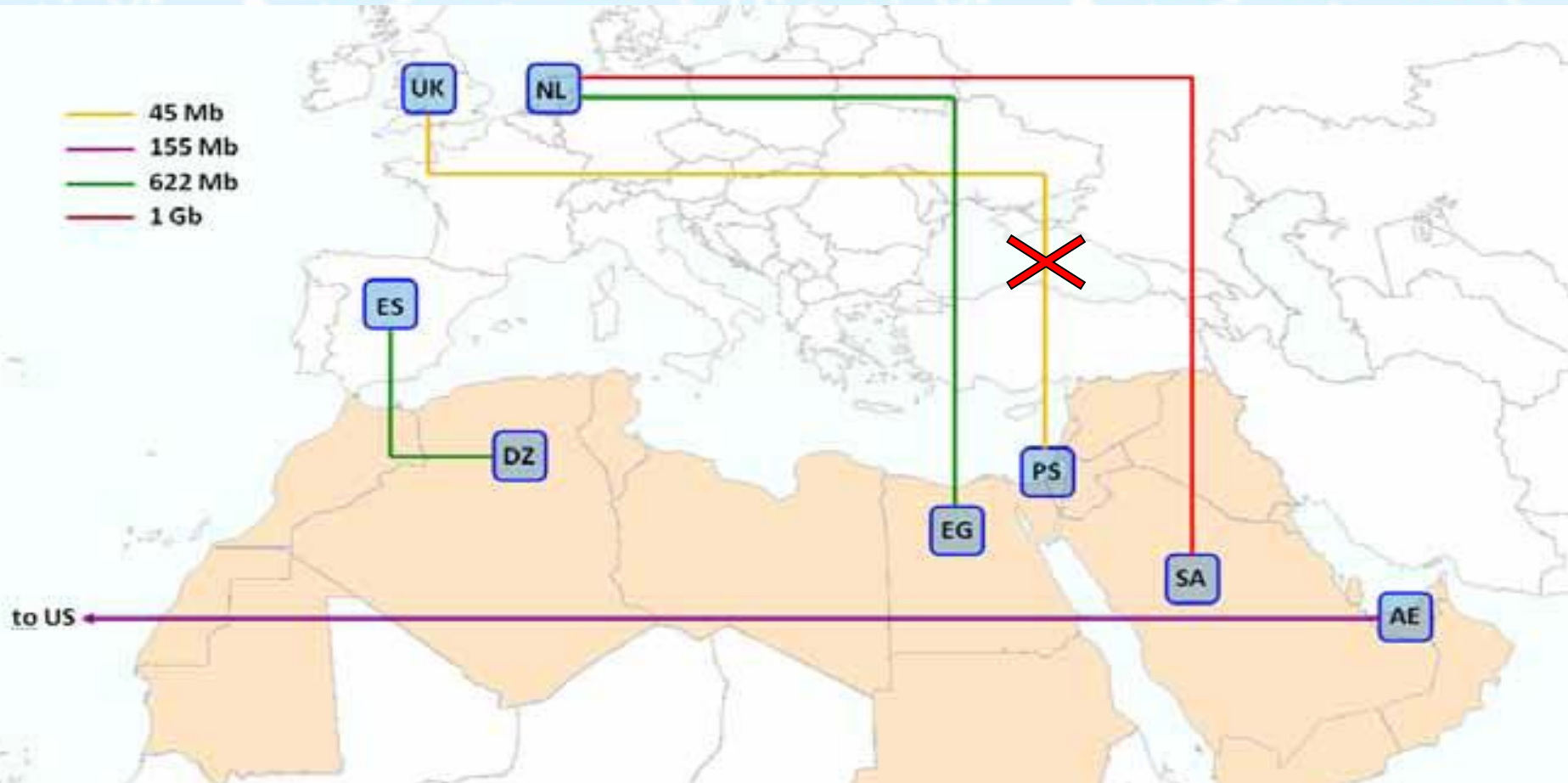
National Efforts (Arab Countries)

Country	NREN
Jordan	JUNet
Morocco	MARWAN
Tunisia	CCK
Egypt	EUN
Sudan	SUDREN
Saudi	KASCT & KAUST
Palestine	PALREN
Syria	HIAST, SHREN
Somalia	SomaliREN
UAE	ANKABUT
Qatar	Qatar Foundation
Oman	TRC – OMREN

**Lebanon,
Kuwait,
Bahrain
Started
and
More to
Come**

..

At the regional level



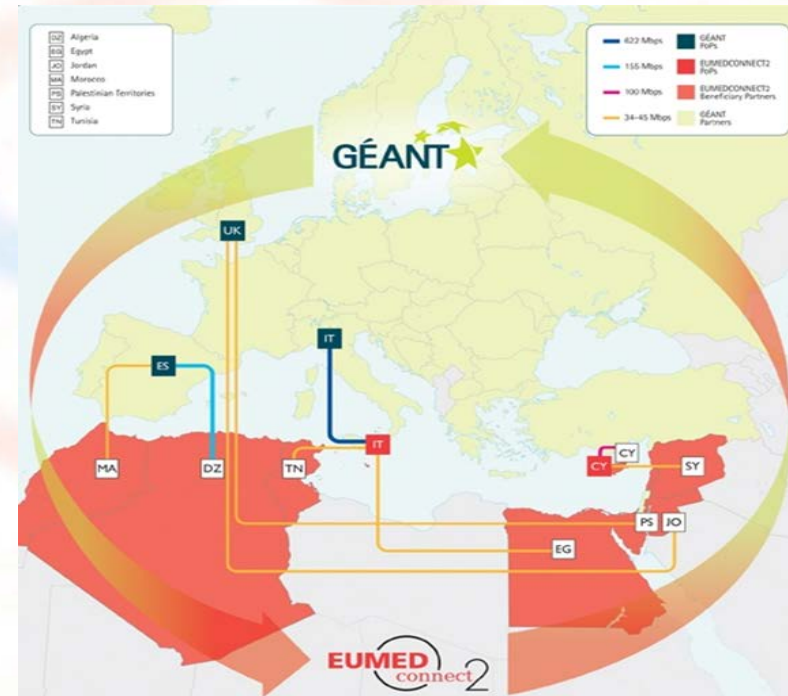
There is no regional R&E network connecting the Arab NRENs

EUMEDCONNECT Programme

EUMEDCONNECT Research and Education network project 2004 -2014 (3 phases), 14M Euro of EC funding

The only regional Research and Educational Network in the Arab Region

National Research and Education Networks in Algeria (ARN), Egypt (EUN), Tunisia (CCK), Jordan (JUNET), Morocco (MARWAN), Palestine (PALNET) and Syria (HIAST) were connected to its European counterpart GÉANT



More 2 million users in around 700 institutions

Other Supporting Projects



The EUMEDGRID Support Project



Coordination and Harmonization of Advanced e-INFRASTRUCTURES



Exchange Programme to advance e-Infrastructure Know-How



Linking Scientific Computing in Europe and the Eastern Mediterranean

Regional Efforts, historical background

- **PAN Arab Network, 2005**
- **Rome Declaration, 2006**
- **NAP, 2007**
- **CAMREN 2008**
- **ASREN 2011**



Major Obstacles and Concerns...

- Financial support
- Technical Support
- Political Support
- Applications, Services, Contents
- Promotion
- Bureaucracy
- Monopoly, Regulations...
- Time...

This slide is unorganized intentionally

I used to carry this heavy slide with me for the last 4 years.

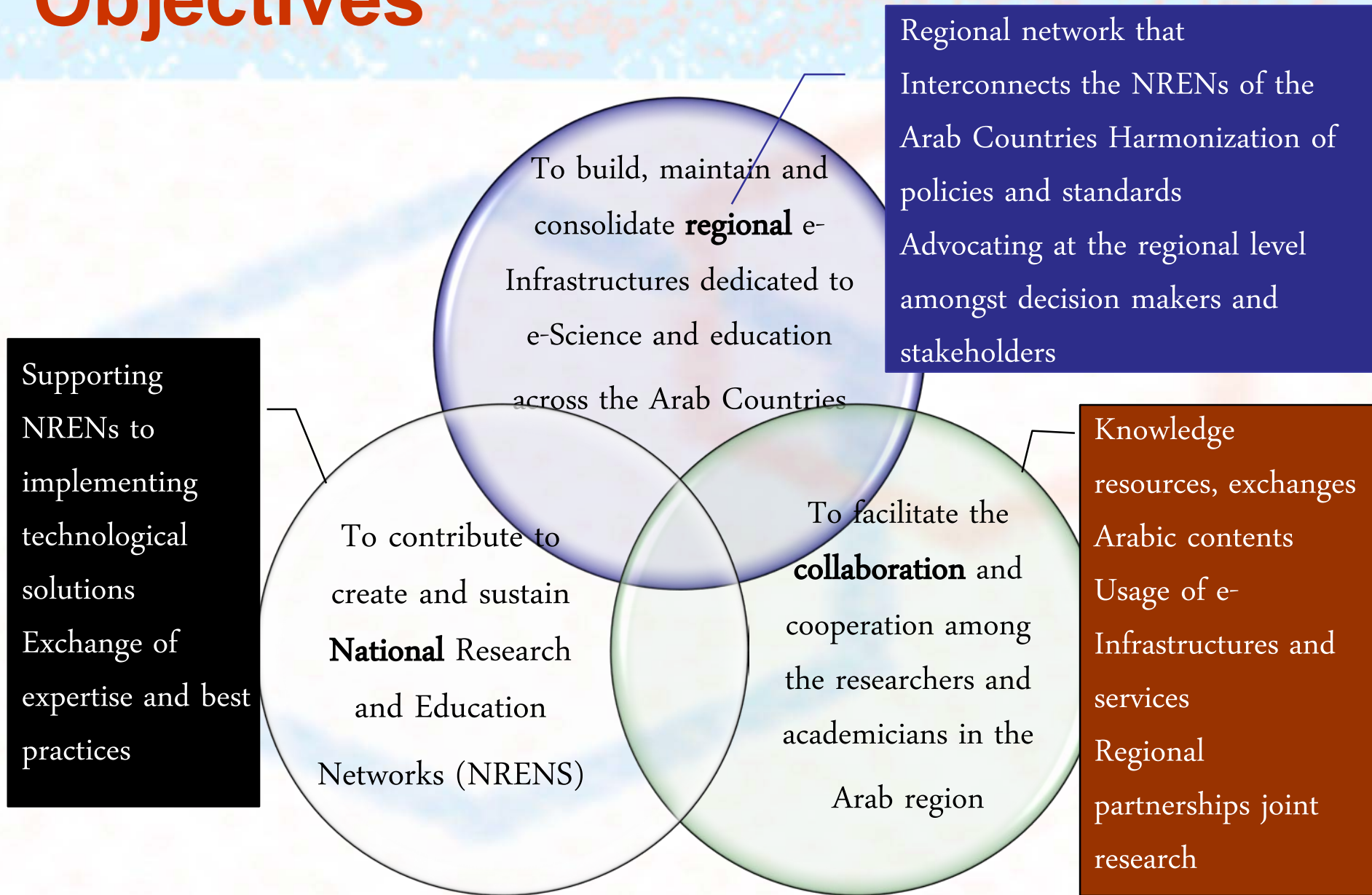


- **ASREN is the association of the Arab region NRENs and strategic partners.**
- **A legal non for profit organization with Arab NRENs as shareholders**
- **Promoting world-class Pan-Arab e-Infrastructures and E-services for the R&E communities to boost Scientific Research and regional Cooperation**

ASREN: Vision and Mission

- **Vision Statement:** Pan-Arab collaborative research and education projects and activities, contribute to boost the scientific research, innovation and education levels in the Arab countries by uplifting efficiency and productivity of research and education communities.
- **Mission statement:** To implement, manage and extend sustainable Pan-Arab e-Infrastructures dedicated for the Research and Education communities and to boost scientific research and cooperation in member countries through the provision of world-class e-Infrastructures and E-services.

Objectives



ASREN Functions

Core Functions

Interconnection

(NRENs interconnection, Network operations center, technical/ financial resources)

Network Management

design topology, tendering and managing NRENs interconnection, monitoring traffic and providing technical support and training to member (NRENs)

Commercial Management

Managing contracts/ agreements with network suppliers/ NRENs funds , funding agencies and conducting advocacy

Interoperability

Guidelines for security policy/ interoperability of services and protocols for supporting applications

Support Functions

Cloud computing, Content, elearning resources, eLibrary, Research,

ASREN Official Launch (2010)

- Launched in the League of Arab States in Cairo under the Patronage of HE Amre Moussa, the Secretary General of the League of Arab States (Honorary Chairman of ASREN)
- Chaired by HE Talal Abu Ghazaleh
- ASREN was officially Registered in June 2011



Challenge:

- 1- Leadership commitments.
- 2- Telecom operator.
- 3- Regulation.
- 4- Finance.
- 5- Clear organization .
- 6- Infrastructure.
- 7- Lack of collaborative projects (local & international).
- 8- e-Education tools.
- 9- Mobility.
- 10- Social Networking.
- 12 - communication and knowledge sharing between users & NRENs.
- 13- Security and Data Ownership.
- 14- New users with little IT & technology knowledge (NREN).
- 15- Technology knowledge of the researcher.



**Fahem Al Nuaimi, CEO, Ankabut, UAE,
Internet2 SIG Meeting, Abu Dhabi, 17 March 2013**

The e-AGE 2012

- Under the Patronage of HH Sheikh Nahayan Sultan Al Nahayan Minister of HE, 12-13 December 2012, Zayed University. hosted by Ankabut and NRF, UAE.
- More than 150 participants and 55 distinguished speakers from 45 countries among them representatives of NRENs and RRENs from around the world
- Launching the idea of UAE as R&E Hub for connectivity and services
- Launching the report on the Arab e-Infrastructure Status Report



Arab e-Infrastructure Status Report

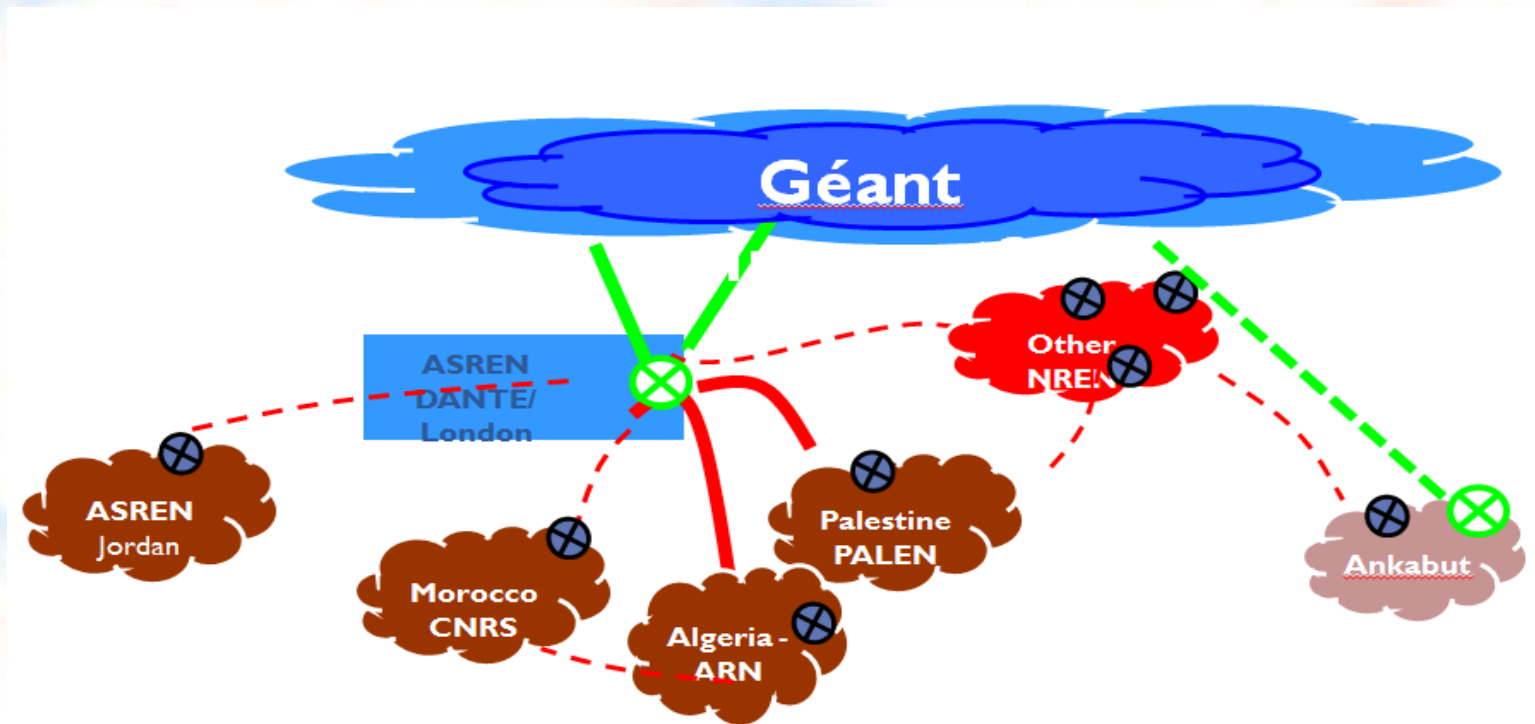
- A comprehensive report on the current status of the R&E infrastructures in the Arab region at both national and regional levels.
- The report includes very important recommendations and actions on how to develop the e-Infrastructures in the Arab Region
- Available in both Arabic and English, visit www.asrenorg.net

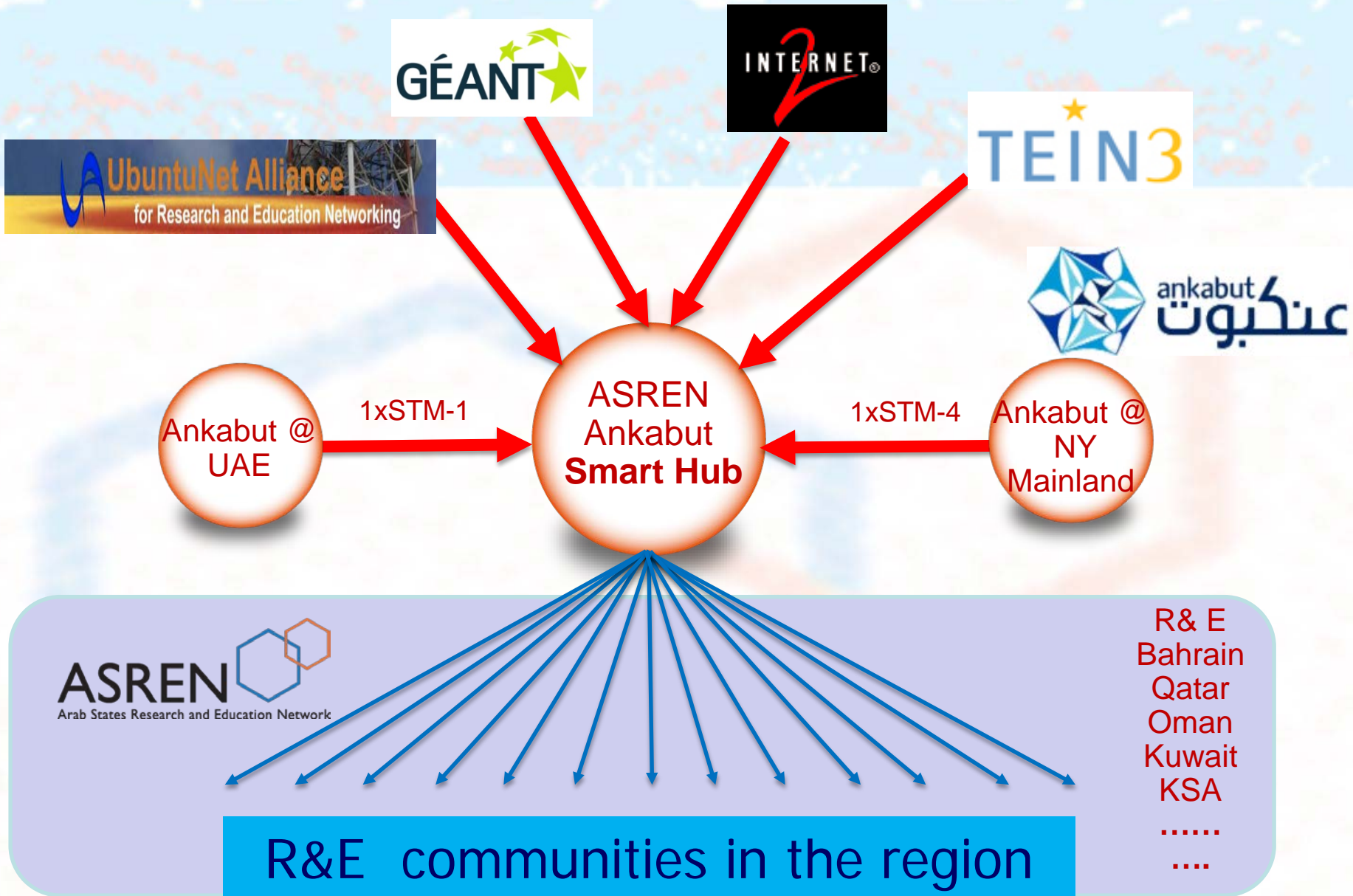
ARAB E-INFRASTRUCTURE STATUS REPORT



ASREN Network - 2013

- ASREN began to role out its own network services
 - STM1 155 Mbps linking to London will be launched in September 2013
 - ASREN Router will be established in London for peering





First Steps to Federation of Identities

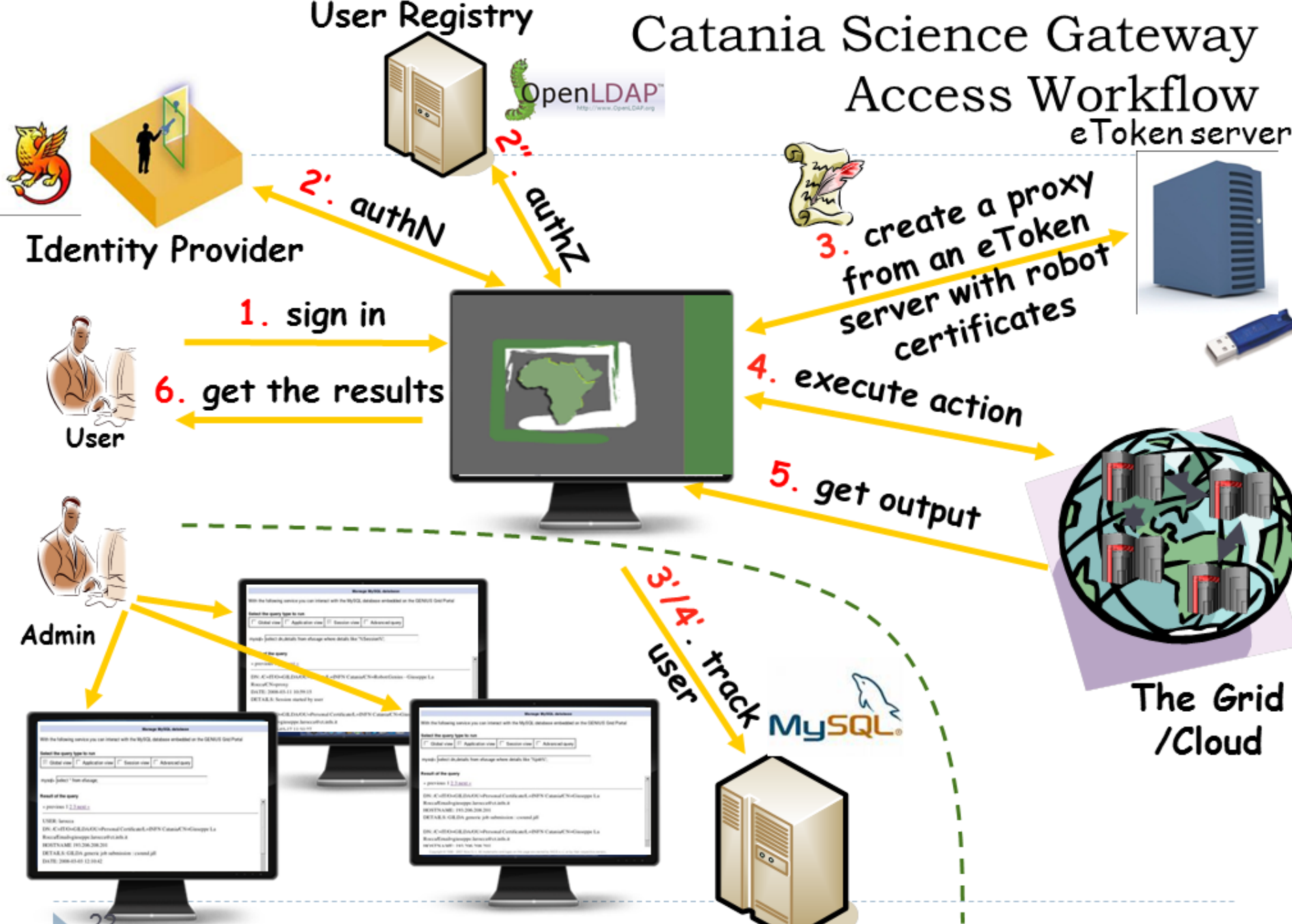
- Under the CHAIN-REDS Project, ASREN is working closely with University of Catania INFN team to implement ASREN Science Gateway based on the Catania Science Gateway model.
- The project includes Federation of Identities implementation
- Thanks to Roberto Barbera and his team for providing training and support to ASREN and EUN



Catania Science Gateway

Access Workflow

eToken server



Compliant with the EGI.eu Portal and Traceability Policies

Browser: <https://sgw.asrenorg.net>

ASREN Science Gateway > Welcome

Message Boards

- Message Boards Home
- Recent Posts
- My Posts
- My Subscriptions
- Statistics
- Banned Users

Search

Add Category Post New Thread Permissions

Threads

There are no threads in this category.

Sign In

You are signed in as **Test Test**.

Applications X

Sequential gromacs

Hello World

Welcome to Liferay Portal Community Edition 6.1.1 CE GA2 (Paton / Build 6101 / July 31, 2012).

Browser: <https://sgw.asrenorg.net/web/guest/run-sequential>

ASREN Science Gateway > Applications > Sequential > Run

Navigation

Applications

- Sequential
 - Run
- gromacs

hostname-portlet

The sequential "Hello World" application just outputs the name of the machine where the job has been executed.

Insert below your job identifier

Submit

Powered By [Liferay](#)

ASREN Science Gateway Layout

Portal of advanced applications for research in the
Arab region



[Home](#)

[About us](#)

[Applications](#)

[Contact us](#)

[→ Sign in](#) *not member* [→ Register](#)



[→ Applications](#) [→ Add new app.](#)

What is the Science Gateway?

The Science Gateway (SG) is an environment that brings together a set of tools, data and advanced computer applications available to research communities in the Arab region.



Next Steps

- To extend the services to the Jordanian Universities Network, JUNet
- Work in progress with Egypt EUN, Morocco MARWAN and Algeria ARN.
- A proposal is under preparation towards a Pan Arab Federation of Identities Infrastructures
- To be presented in ASREN-EUMEDCONENCT meeting in Doha, 10 September 2013.

Shareholders Progress



Sudanese Research & Education Network

شبكة البحث العلمي والتعليم السودانية



Shareholders updates can be viewed at

<http://www.asrenorg.net/about/shareholders.html>

Capacity Building and Technical Support

- Conducted joint training with MENOG in Amman attended by NRENs of 3 countries
- Workshop on building Federation of Identities Infrastructure in Amman represented by NRENs of 9 Arab Countries
- Provision of technical assistance on establishing IDP and SG infrastructures

Newsletters

- Several newsletters issued with more than 100 news items
- Circulated to all ASREN database of contacts (~6000)



- More news are published at ASREN News web:
<http://www.asrenorg.net/media/news.html>

ASREN was there

- Multi-stakeholder Internet Governance in the Arab World, Dubai
- The International Exhibition and Forum for Education 2013, Riyadh
- TIP2103 Compendium Consultation Meeting, Hawaii
- Internet2 Spring Meeting 2013, USA, **Thanks to Fahem and Ahmed**
- Seventh SKF 2013, Morocco, **Thanks to Ahmed and Redouane**
- TERENA Networking Conference
- International Symposium on Grids and Clouds (ISGC) 2013, Taipei
- UNESCO HP BGI, Paris. **Thanks to Nabil, Redouane and Marc**
- African Peering and Interconnection Forum AfPIF, Casablanca, Morocco, 3-5 September

EUMEDCONNECT3 – ASREN Meeting

16 June 2013, Amman




e-AGE 2013

“Connect →
Access →
Innovate”

You are all
invited

Registration
is now open



ASREN
Arab States Research and Education Network


Under the Patronage of His Excellency
Minister of Higher Educational and
Scientific Research of Tunisia

3rd International Platform on Integrating
Arab e-Infrastructure in a Global Environment

e-AGE 2013
“Connect..
Access..
Innovate”
El Mouradi Hotel, Gammarath
Tunis, Tunisia
12-13, December, 2013



Host



DANTE EUMED INTERNET chain KAWARIZMI

<http://eage2013.asrenorg.net>

e-AGE 2013 – Main Activities

- The 6th Event on Euro-Mediterranean e-Infrastructure
- The 3rd annual meeting of ASREN
- CHAIN-REDS Workshop on e-Infrastructures
- EUMEDCONENCT3 Project Meeting
- The 5th AROQA Annual Conference
- Technical Workshops on R&E networking
 - Building NREN NOC
 - Edugain and Eduroam (TBC)



Thank You

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