

Digital Research and Education Infrastructure to Support Science and Achieve the UN-SDGs [Organized by ASREN]

Background

As research and education became more demanding for resources, applications, massive volumes of data, high performance and grid computing, and content, it has become a worldwide trend (now it is a fact) to establish dedicated networks for research and education away from the commercial Internet to satisfy the needs of research and education communities. It started with NREN (National Research and Education Networks) which provides dedicated connectivity to Universities, Research centers, Libraries, Hospitals, and any other organization supporting these activities. These networks are then connected at the regional level to form RREN (Regional Research and Education Networks). Examples of NRENs: Red.es in Spain, Consortium GARR in Italy, MARWAN in Morocco and OMREN in Oman. Examples of RRENs: GEANT in Europe, Internet2 in USA, Red CLARA in Latin America and APAN in Asia Pacific region.

In addition to dedicated connectivity, NRENs and RRENs provide advanced services that enable and facilitate collaboration and include applications, tools and access mechanisms to the research and education communities. NRENs and RRENs are key elements in adopting “Open Science” and “Open Access” to support “Science” towards achieving the UN-SDGs

The session will present and discuss the research and education infrastructures and the role of NRENs and RRENs in supporting the developments of research and education in the Arab region and the way forward to better support these communities. It will discuss also challenges and obstacles facing the communities and the providers of this infrastructure.

Key Facts

- Most of the Arab countries do not have a National Research and Education Network (NREN). There is a need to establish NREN in these countries and should be associated with governance and sustainability plans with actions.
- Existing NRENs also need to be supported and to be provided with the required capacities, capabilities, and funding to achieve their objectives.
- At the regional level, the Arab regional Research and Education Network, ASREN, also needs to be supported to complete the pan Arab regional infrastructures and to provide advanced connectivity, applications, services, and collaboration tools.
- All NRENs and RRENs in the Arab region should take the responsibility associated with the new role related “Science Collaboration” through supporting “Open Science,” “Open Access” and collaborating with national, regional, and global initiatives in this regard.

Description

The session will discuss the following:

1. What are research and education networks and what do they do and why they are critical to development? Will also go through models and practices in deploying these networks.
2. Services provided by research and education networks and examples of successful networks from the region.
3. Examples on engagement with scientists, researchers and academics with research and education networks from the region to demonstrate how they can benefit from these networks, infrastructures, and services.
4. Challenges and obstacles facing the developments of these networks and associated infrastructures and services.
5. The future role of research and education networks under the new global challenges, especially the UN-ADGs.

Moderator:



Mr. Yousef Torman
Managing Director, for the Arab States, Research and Education Network, (ASREN)

Speakers:



Mr. Fahem Alnuaimi
Chief Executive Officer
Ankabut - UAE



Mr. Mohamed Al Hajri,
Infrastructure Manager,
OMREN, Oman



Mr. Raed Al Zoubi
Library Director, Jordan
University of Science &
Technology, Jordan



Mr. Yousif Asfour
Chief Innovation and
Transformation Officer
(CITO), AUB, Lebanon



Ms. Farida Fassi
Professor, Mohammed V
University, Morocco



Mr. Eriko Porto
IT Consultant ASREN,
Brazil

4 QUALITY EDUCATION



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable, and modern energy for all.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Build resilient infrastructure, promote sustainable industrialization, and foster innovation.

13 CLIMATE ACTION



Take urgent action to combat climate change and its impacts.

14 LIFE BELOW WATER



Conserve and sustainably use the oceans, seas, and marine resources.

15 LIFE ON LAND



Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.

17 PARTNERSHIPS FOR THE GOALS



Revitalize the global partnership for sustainable development.