**Opening Keynote**

**Supporting efforts towards developing Lebanese National Research and Education Network**

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OGETHER with the Ministry of Education and Higher Education, Lebanese Universities, the National Council for Scientific Research, and our European partners, we are here today to witness the launch of the Lebanese National Research and Education Network. Our ultimate goal is establish an electronic infrastructure to connect all Lebanese Universities through a dedicated network at the national level, then to the Arab and European research and education network. This will support advancing research, improving education, accelerating progress, providing hope, and enabling better opportunities for our young scientists.

The Lebanese research and education network will allow researchers, faculty, staff, and students around the country to communicate with each other and to access a broad range of research tools and information resources. In addition to physical connectivity, the network will provide applications, such as videoconferencing, media streaming, IP telephony, access federations, and wireless roaming. The network may also facilitate distributed computing resources (grids) and operating experimental test-beds for data-intensive applications. In summary, the Lebanese National Research and Education Network, would provide the following general services:

* Unified connectivity to all research and education institutions to provide country-wide standard communication facilities
* Consolidated Internet services, with the NREN acting as an ISP to universities and research institutions, so tremendous decrease in access costs
* 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.
* Consolidated agreements with software vendors on behalf of all Universities for licensing.
* Common caching, filtering and anti-spam and anti-virus protection services to be provided to all connected institutions.

To give some back ground information why we are here, ASREN (Arab States Research and Education Network) has been established to support developing connectivity to all Arab Universities and research centers. ASREN builds on the EUMEDCONNECT project initiative which has been co-funded by the European Commission since 2004, to support the development of research and education (R&E) network in the Mediterranean area and promoting scientific collaboration. At the regional level, several efforts were made to realize this initiative as a regional network for R&E.

In 2005, efforts were made in Jordan for a feasibility study to use optical fiber of the power distribution grid in the Arab countries for the purpose of building the Pan Arab R&E network. In 2006, Rome declaration revealed the concept of CAMREN (Consortium of Arab Mediterranean Research and Education Network) as a regional infrastructure for data communication to improve cooperation. In 2007, the Global summit on Knowledge Societies emphasized a pillar on “achieving universal access and improving quality of services for the Arab citizen”. In consequence, the ITU Arab regional office adopted the NAP (Network Access Point) initiative in the Arab States. The NAP proposal was centered on Western NAP in Morocco, Middle East NAP in Egypt, GCC NAP in the United Arab Emirates, and CHAM NAP in Jordan.

In 2010, formal announcement of ASREN took place at the EU-MED event and its formal launch took place the League of Arab States. In 2011, ASREN was officially registered as the ASREN GmbH in Germany as a non-profit Arab States Research and Education Network with the initial shareholders of Abu-Ghazaleh & Consulting GmbH, Jordan University Network, and Moroccan CNRST.

With the financial support of Talal Abu-Ghazleh Organization and patronage of the League of Arab States, ASREN is now founded and strives to become the future Pan-Arab e-Infrastructure network. Our goal is to expand and connect all Arab research and education (R&E) institutions in a unified network that provides scientists, academics, students, and researchers with state-of-the-art connectivity. Through the unified e-Infrastructure, ASREN will provide its users with services, applications, and means for joint research collaboration. It will also allow for a wider access to educational content and efficient computing facilities. It will leverage economies of scale in using available research, academic and technical resources. The fact that students, teaching staff, and researchers use ASREN network will lead to enhanced efficiency and productivity and will boost the concept of creativity and innovation. However, financing, political instability, scattered geographical landscape, and lack of expertise are the main challenges. With EUMEDCONNECT funding, EUMEDGrid Support, and other regional initiatives, ASREN will be able to sustain the existing R&E network in a number of Arab Mediterranean countries and expand to Lebanon, the Arab Gulf countries, Sudan, Iraq, Libya, Somalia, and Mauritania.

While still the subject of debate, there is now a growing consensus for the concept of ASREN Arab regional R&E network with main nodes possibly originating in Egypt, UAE, Qatar, Saudi Arabia, Jordan, and Morocco and connecting to the regional networks in Europe, Asia, Africa, and North America. ASREN will continue to join efforts with its European counterpart to bring new technology means and services to the Arab research and education communities and to provide hope to our future scientists towards enhanced educational environments equipped with better tools, connectivity, and services. ASREN is seen to take advantage of the series of new cables laid in the region to become more economical to connect the Arab national R&E networks to the world and to evolve as a R&E link between the East and the West.

In December 2011, ASREN is hosting the first international platform on Integrating Arab e-Infrastructures in a global environment. The platform is meant to be the launching pad for R&E connectivity and cooperation. It will bring together the ASREN, EUMED, GEANT, and INTERNET 2 stakeholders and region’s foremost innovators, leaders, scientists, and businesses to discuss and debate new models of innovation, integration of R&E networks, policies for sustainable development in education, means of knowledge sharing and dissemination, capacity building programs, and region-wide e- infrastructure deployment to tackle today’s crises in climate change, global economy, food and water scarcity, alternative energy, and threatening environmental issues. The platform is expected to lay the foundation for a dream of many of today’s leaders towards a global e-infrastructure for R&E based on real life broad inclusiveness beyond any political protocols.

ASREN will continue to assist in enabling continuous dialogue and coordinated action among Partners to empower e-Infrastructure use in research, education and academic activities, in order to advance research, improve teaching and learning, promote excellence, and enhance accessibility and quality of research, education and learning.

***In closing,***

This workshop is an opportunity to consolidate our efforts, a prosperous future for our scientists. We look forward to working with you in facilitating our experiences and EU partners’ collaboration to build Lebanese R&E network and connecting to ASREN and the world. ▀