

**Proceedings of  
1<sup>st</sup> International Platform on Integrating  
Arab e-Infrastructure in a Global  
Environment**

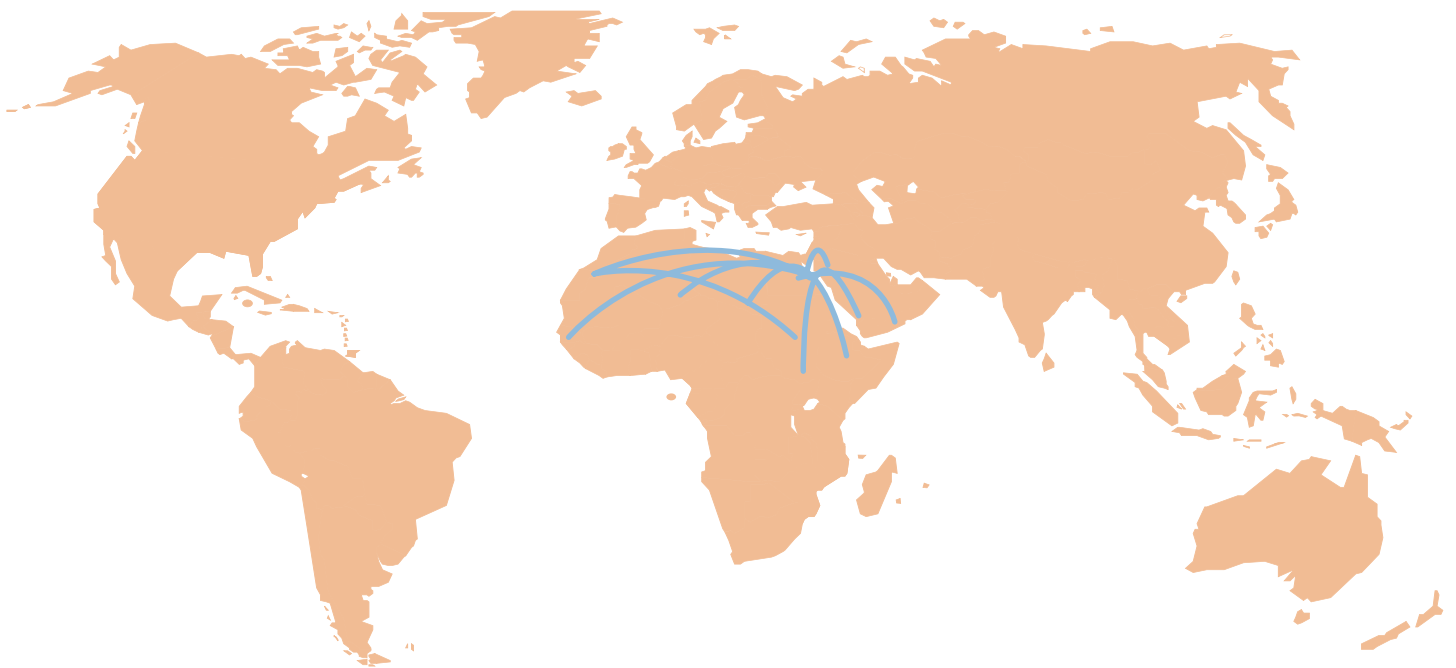
**e-AGE 2011**

**Together We Shape the Future of Research and Education Networks**



**Amman - Jordan  
12-15 December, 2011**

## e-AGE 2011



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The Arab region has attained a certain level of development towards developing advanced e-Infrastructure and it is important for the Arab States Research and Education Network – ASREN to make use of its current potential in strengthening research connectivity and make this potential available for use on a regional scale.

The e-AGE platform organized by ASREN on December 12-14, 2011 has set among its priorities, the development of pan-Arab e-Infrastructure, coordination with regional e-infrastructures, and enhancement of research and education cooperation in a wide range of activities, among the Arab countries and with communities in Europe, the US, Canada, Latin America, Africa, and the world at large.

Our objective is to create a suitable medium for dialogue to facilitate investments needed for regional links and capacity for R&E through preparation and execution of national and regional e-Infrastructure projects. It is important that this dialogue and debate are based on objective grounds motivated by the long-term strategies and interests of our countries in the Arab region.

We deem it inspiring that e-AGE was attended by esteemed speakers, policy makers, experts, and scientists representing all the Arab countries, Turkey, Europe, the US, Africa, Latin America, Canada, Asia, and international organizations and companies in a larger audience scale, representing over 30 countries. We see this as a manifestation of the sound basis and the respectable sustainability of the dialogue environment towards developing Arab research and education networks.

It is of great importance that we build on the success of e-AGE and take necessary steps towards developing Arab e-Infrastructure and linking to the world research and education communities on a global scale.

It is also of great importance that we make use of the support of the League of Arab States, Europe, the US, and the international donors to initiate cooperation and develop sustainable projects towards connectivity and ensurance of a sense of self dependence.

It is of significant value that the Arab, Turkey, and the European NREs have come together and declared to continue cooperation beyond the EUMEDGRID Support project, and build on its successes in developing the new Euro-Mediterranean e-Infrastructure EUMEDCONNECT, providing support to scientists and researchers across the two sides of the Mediterranean, in view of the further consolidation of the Arab-Mediterranean networking and grid infrastructure towards an integrated Arab regional operation center and grid resources with strong user and site administrator support system.

On behalf of Jordan, the shareholders of ASREN, EUMEDCONNECT, EUMEDGrid Support, CHAIN, and the participating organizations, we thank all who have contributed to e-AGE and we hope that it has successfully served as an effective medium in attaining a convincing environment towards achieving our goals in developing stronger research and education communities in the Arab region and beyond.

*Dr. Talal Abu-Ghazaleh  
Chairman of ASREN*

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# 1. Introduction

In June 2011, the Arab States Research and Education Network (ASREN) was born as the association of the Arab region National Research and Education Networks (NRENs) and strategic partners, a non-profit company with limited liability (GmbH) and officially registered in Germany. ASREN GmbH aims 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.

ASREN aims to advance all aspects of Arab research and education networking. This encompasses e-infrastructure network, a range of network support and access services for users, initiatives to address the digital divide of research and education networking around the Arab world, and technological research to ensure ASREN continues to be at the forefront of networking on a global scale.

ASREN builds on EUMEDCONNECT project to develop a pan-Arab backbone to interconnect National Research and Education Networks (NRENs) in the Arab countries, which will be supported by a range of multi-domain performance and monitoring tools. A suite of advanced end user services will be developed and made available for NRENs to incorporate into their service portfolios, for Arab research and education community. This creates the pan-Arab ASREN Service Area, a collaboration of interconnecting networks, enabling users across the Arab world to benefit from simple, secure “any place” access to high performance data communication capabilities. ASREN will focus on service delivery to NRENs and to end user institutions and research centers.

Integrating Arab e-Infrastructures in a global environment – e-AGE was meant to be the launching pad for R&E connectivity and cooperation. The idea is to 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 key target is 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.

Following launching and officially registering ASREN, and building on the success of the previous EUMED Events, and in conjunction with the Internet2 SIG, e-AGE has been planned to present the status and future opportunities to develop Pan-Arab R&E network integration models and beyond to Europe, the US, and the globe at large. e-AGE included three regional events that focus on research and education e-Infrastructures:

- EUMED Event 4
- Internet2 SIG Middle East Meeting
- ASREN 1st Annual Meeting

Moreover special sessions has also been dedicated to specific domains such as Digital Cultural Heritage, Climate Change, Economic Crisis, Global Warming, and Energy.

## 2. Objectives and achievements

The key objectives of e-AGE 2011 are to:

- announce the first year of achievements of ASREN and present its future planning
- launch the third phase of the EUMEDCONENCT project
- show the achievements of e-Infrastructures in the area such as EUMEDGRID and further build on the success of the previous EUMED Events 1,2 and 3 to present and develop the cooperation and collaboration between the Arab, European, and US researchers
- draw attention to high level politicians and decision makers on the importance of the e-Infrastructures to develop the research and education communities in the Arab world and beyond
- help and support sustainable research and education network across the Arab Region connected to the European Network GEANT2, North American Network Internet2 and other regional networks around the world
- attract and encourage donors, research foundations and supporting institutions in the Arab region, Europe and worldwide to support the development of ASREN and supporting the research e-infrastructure
- strengthen the involvement of the private sector collaboration in developing the research and education.
- Bring the attention of scientists and researchers on the importance of eInfrastructure and to showcase examples of collaborative and joint research projects

### 3. Participants

e-AGE was attended by esteemed speakers, policy makers, experts, and scientists representing all the Arab countries, Turkey, Europe, the US, Africa, Latin America, Canada, Asia, and international organizations and companies in a larger audience scale, representing over 30 countries. e-AGE platform was the most important venue for networking among experts and scientists from all over the world. Key participants included:

- Researchers, Academics, and Scientists from variety of disciplines
- University presidents, research deans, and network directors
- R&E related corporate executives
- Senior staff from National, International, Regional, European, and American Agencies
- Ministers, government officials and representatives of Higher Education and Scientific Research and Ministries of ICT in the Arab World and the region
- GEANT and Internet2 SIG high level representatives
- Officials from National research foundations
- League of Arab States and Arab research and Education associations
- Fedearation of Arab Research Council FARSC.
- Arab, European, Dante, Terena, and American NREN representatives
- Managers of regional Scientific Research projects
- Telecom and technology service providers
- Librarians, publishing companies, and educational curricula and content providers
- E-Learning, distance education, and instructional technology developers

Representatives from the following countries participated in e-AGE meetings:

Jordan, Palestine, Iraq, Egypt, UAE, Saudi Arabia, Oman, KSA, Algeria, Tunis, Morocco, Lebanon, Sudan, Qatar, Somalia, Cyprus, USA, Canada, Italy, Turkey, Netherlands, Brussels, Switzerland, Belgium, Germany, Greece, UK, Chile, Korea, Ethiopia.

## 4. Highlights from the opening ceremony

### 4.1 Welcoming address



His Majesty King Abdullah II deputized HE Dr. Ruwaida Al Ma'aitah, Minister of Higher Education and Scientific Research to inaugurate the Conference. Dr. Al Ma'aitah delivered a speech, conveying His Majesty's greetings to guests and participants, appreciating their efforts and wishing them success in reaching their objectives while pledging to provide all necessary support and facilitation.

In addition, HE thanked Dr. Talal Abu-Ghazaleh for his continuous efforts exerted in various professional fields to develop the society, in particular, in the fields of education, training, qualification, and capacity-building, as well as his ongoing efforts in the field of education and scientific research.

Dr. Al Ma'aitah said that the Ministry has endeavored to provide a healthy environment for scientific research in strategically significant fields to increase Jordan's competitiveness in the long term, namely; energy, water, environment, technological applications as well as supporting intellectual property rights.

HE added that Jordan national strategy focuses on achieving advanced research and educational standards to meet the present and future needs of the Jordanian society to keep abreast of the international development in the field of education and scientific research.

### ASREN Chairman



HE Dr. Talal Abu-Ghazaleh expressed his deepest gratitude for the Royal patronage and extended his sincere thanks to His Majesty King Abdullah II for the continuing support to research and education communities. Dr. Abu-Ghazaleh called for a Pan-Arab e-Infrastructure project through a multi-stakeholder partnership, including the worldbank, League of Arab States, Arab NRENS, European and US partners, ESCWA, and other stakeholders. He said, "We look forward to have national scientific research networks in all Arab countries, and the non-



member NRENs in the Arab countries to accede to ASREN”, confirming that ASREN is ready to extend all required assistance to establish NRENs in accordance with the internationally recognized model for Research and Education networks.

Dr. Abu-Ghazaleh announced three major projects for the education communities to be launched at the outset of 2012; namely: TAGITOP®, TAGIPEDIA®, and TAG Corporate Virtual University which shall provide all educational and training programs for both the public and private sectors as well as the education sector at the Arab world level.

### Minister of Information and Communications Technology



HE Eng. Basem Al-Rossan, Minister of Information and Communications Technology, delivered a speech, addressing in details Jordan experience in the field of e-infrastructure where he said: “The Government of Jordan started the e-integration plan in 2003 to link the schools and universities technically in line with the vision of His Majesty the King towards an an integrated Jordanian knowledge-based economy”

His Excellency added that these programs expanded in 2007 to include the public institutions, medical centers and hospitals, and the schools in rural areas were chosen as distribution points for the Internet services to all rural citizens.

### Directorate of Research and Education at the League of Arab States



Dr. Fa'eqa Al-Saleh, Advisor to the Secretary General of the League of Arab States – Directorate of Research and Education, convey the greetings of HE Dr. Nabeel Al-Arabi and his wishes for the forum success.

Dr. Al-Saleh appraised the cooperation between ASREN and the Arab League in the field of education and scientific research, and youth empowerment, pointing out to the Knowledge Youth Summit which will be held in Morocco in March 2012 jointly by the Arab League and Talal Abu-Ghazaleh Organization. She

also emphasized the importance of multistakeholder partnership in developing research and education network at the Arab regional level. Efforts will be made to help create awareness among Arab governments to support ASREN activities and goals.

#### Head of the EU delegation to Jordan



Mr. Spiros Polycandriotis ( head of trade, economic affairs and private sector development at the EU delegation to Jordan) – As representative of HE Mrs Joanna Wronecka, Head of the EU Delegation to Jordan- delivered a speech addressing the importance of e-infrastructure and the challenges to overcome and discuss through the conference. He said: “the infrastructure is necessary to allow researchers to participate in cross borders activities to share competences and experiences all around the world beyond the established borders. That was the rationale behind the establishment of the EUMed cooperation in e-infrastructure and information society when it started 8 years ago.”

He also talked about EUMEDCONNECT project and how this initiative has opened opportunities connecting networks to people from the broad range of sectors and facilitating services that are the key for the successful development in reform of the MENA region. He stressed on the importance of adopting sound policies and strategic approach to advance economical and technological development in each country.

#### 4.2 Signatory ceremony

His Excellency Dr. Talal Abu Ghazaleh, Chairman of ASREN signed the cooperations agreements with the following organizations:



Zain Jordan, signed by Mr. Ahmad Hanandeh, CEO ZAIN – Platinum sponsor



SAMSUNG Electronics, signed by Mr. Sangsuk Roh, President Levant CO. Ltd – Platinum sponsor

Dr. Talal Abu-Ghazaleh also signed Letter of Accords with the following Arab NRENs, declaring the intention to join ASREN as a shareholder and to collaborate with ASREN for developing research and education activities related to e-Infrastructures: (3804, 3813, 3809, 1781,1774 )



- UAE, ANKABUT signed by Dr. Fahem AlNuaimi, CEO of ANKABUT
- Sudanese REN, signed by Dr. Mohammad Awad, CEO of SudREN
- Palestine: Minsirty of Higehr Education, signed by Prof. Ali Abu Zuhri
- Somali REN, signed by Dr. Dahir Hassan, CEO of SomaliREN
- Tunisian CCK, Signed by Dr. Mohamad Jemni, CEO of Tunisian CCK
- Algerian Research Network, signed by Mrs Auouache El-Maouhab



## 5. Highlights from the panels and discussions

### 5.1 Invited lecturers

*HE Dr Khaled Toukan, "e-Infrastructure based research: SESAME Case Study", Chairman of JAEC, Jordan*

Dr. Toukan gave technical presentation about SESAME with overview of the Synchrotron facility in Jordan as an international research center. Scientific and technical activities started since the project started. He also gave highlights on computing and network infrastructure requirements of SESAME to meet and enable the Scientific Research in the region. There is a good collaboration with the regional e-infrastructure project (LinkSCEEM) through JUNet. Beam lines were installed by SESAME Engineers and Scientists. Application will be developed HPC resources through LinkSCEEM project.

*Mr Kostas Glinos, Head of GEANT e-Infrastructures Unit, DG IS & Media- European Commission*

Mr. Kostas emphasized the role of EC in supporting the development of e-Infrastructure in Europe and the region, and how it is important for the Europe's future prosperity and wellbeing. He mentioned the new solutions and programme for R&I to boost innovation and competitiveness in the global knowledge economy. Also, Mr. Kostas highlighted the needs for e-infrastructure to be global and using it as an instrument for development. The more people, machines and data are connected to a global e-infrastructure, the more is the value of the research and the easier cooperation gets.

"GÉANT 2020" would become the European communications commons, where talent anywhere is able to collaborate with their peers around the world and have instantaneous and unlimited access to any resource for knowledge creation, innovation and learning, unconstrained by the barriers of the pre-digital world.

Finally, he talked about EC support to mediterranean region and ASREN role in supporting R&I and integrating regional e-infrastructure.

*Mr Dave Lambert, "Highlights on the US Internet 2 advanced networking consortium", Internet2, USA*

The US Internet2 is the Next Generation Innovation and Service Platform for Research, Education and Economic Development in the United States, this presentation gives highlights on its history, and how they are creating opportunities for new innovation based on understanding what enabled innovation in the past. He explained how R&E community is critical to advancement of networking and advanced applications in the US and the world. Deploying new and advanced services add value to the research and education networks.

*Mr Niels Hersoug, "Experiences of Delivery of Advanced Network Technology to Europe", UK*

GEANT is the World's largest and most advanced Research and Education Network and co-funded by Europe's NRENs and the European Commission (EC) under the Seventh Framework Programme (FP7). He gave brief about GEANT project Manager DANTE (Delivery of Advanced Network Technology to Europe), its purpose, activities, the European topology and the international recognition of GEANT around the world. He also shed light on the challenges to achieve the vision of a Regional Research and Education Network.

## 5.2 Trends in e-Infrastructure



*Dr Robert Klapisch, "ASREN as a tool to scientific cooperation in the Arab World", SKF, Geneva (Chair)*

Morocco (MARWAN) and Jordan (JUNet) are two outstanding examples of successful NRENs. ASREN would be a unique instrument to foster scientific collaboration among Arab States. He mentioned examples of collaboration in education and research among the Arab States and how much this will be effective in the development. In addition, there are specific joint researches of regional interest, such as agriculture in arid zones, exploitation of solar and wind energies etc.. where research programs between two (or more) Arab states could lead to progress of world level knowledge.

*Dr Anna Paolini, "Towards an era of e-Infrastructure", Head of UNESCO office, Jordan*

Dr. Anna emphasized that new technologies offer tremendous opportunities for information dissemination. Through its work in the framework of broadband commission, its work with member states, and partnership with civil society, the private sector, and professional bodies, UNESCO is championing the ethical use of ICT to address human development challenges. Dr. Anna also emphasized that progress towards peace and internationally agreed development goals can not be accelerated by connectivity and infrastructure alone, but rather through quality digital content and resources. The Digital archive project at UNESCO has been introduced to strengthen access to information and knowledge and with ICT citizens have the freedom of expression.

*Ms Samia Melhem, "Best practice cases of eGovernment projects", Chair of e-Development, ICT Sector, World Bank*

ICT has become ubiquitous in all sectors and is an enabler for deep transformation. With today's 5.7 Billion mobile phone users, the mobile phone networks can be used for service delivery to the poor and remote citizens, and as a tool to receive feedback from citizens. ICTs applications in public sector reform ( E-Government) in the Financial Sector (mobile banking), trade Facilitation and others are making the world more efficient and transparent, and service providers more accessible and accountable, while creating new economic opportunities and jobs in what is commonly dubbed knowledge economy. The presentation will go over new trends and opportunities in smart usage of ICTs in social accountability, and will discuss the necessary enabling environment (policies, legislation, broadband infrastructure, education and skills) that policy makers need to create and sustain for their countries and constituents to take full advantage of the ICT sector and the innovations it can offer.

*Mr Ayman El-Sherbiny, "Regional Backbone Initiatives", Chief of ICT Policies, United Nations - ESCWA, Lebanon*

Mr Ayman presented the Knowledge Economy and its major pillars, which include the Dynamic Infrastructure facilitating effective communications, dissemination, processing information and sharing knowledge. The regional backbone initiative for the Pan-Arab e-Infrastructure will shape the future of Research and Education Networks within Knowledge Economy Paradigm. The ESCWA Technology Center (ETC) will play a major role in strengthening of national STI systems, develop capacity and will foster synergy at the regional level in the application of technology

*Mr Leonardo Flores, "e-Infrastructures in a regional context", European Commission*

"The global e-infrastructure is a necessity to enable and empower world-class researchers" Leonardo said. He added "the more people, machines and data that are connected the more value of research". To make the efficient use of the e-infrastructure, ASREN should have clear scope for action by all stakeholders (e.g. governments, international organisations, regulators, research community, industry..)

*Dr Fabrizio Gagliardi, "Cloud computing technology impact on e-Infrastructure for science", Microsoft, Geneva*

Cloud Computing is the latest development of distributed computing, emerging as commercial offering from most of the major IT vendors, which is becoming attractive not only for commercial customers but also for the wider scientific community. Many scientific users, traditionally excluded by HPC and Grid computing solutions, are now adopting Cloud Computing essentially because of the reduced cost and ease of use, scalability and virtualization of the IT infrastructure.

### 5.3 Perspectives on regional e-Infrastructure



*Mrs Margaret Ngwira, "Enabling Researchers & Research Collaboration in Africa", UbuntuNet Alliance, Malawi (Chair)-Deputized by Mr. John Dyer*

Mrs Margaret said that the UbuntuNet Alliance includes 13 NRENs from South and East Africa with Secretariat in Lilongwe, Malawi, and CEO in Kampala. She presented the UbuntuNet network layout, operations, countries included and how they are connected to the rest of the world. To this end, the Alliance participates in EU FP7 projects: last year, ERINA4Africa where pent up demand and current applications were documented and currently the CHAIN project. It was also emphasized on the importance of links between UbuntuNet and ASREN to bring researcher together for topics of interest to the African – Arab regions.

*Dr Florencio Utreras, "RedCLARA2: An Advanced Collaboration Tool for Latin America", CLARA, Chile*

RedCLARA created by ALICE (America Latina Interconectada Con Europa) projects, it is not for profit international organization based in Uruguay with 15 partners (13 connected and 2 in standby). In his presentations, Florencio gave a comprehensive overview of the RedCLARA network, building the infrastructure through ALICE tenders, Synergies with internal networks, and services for communities. Building regional user communities is key to underline the importance of horizontal collaboration and hence regional connectivity

*Dr Jonathan Chapman, "Enabling Inter-Institution Scientific Research", Internet2 – Emerging NREN Middle East SIG, Qatar*

"Research is no longer a solitary occupation. It is a collaboration involving participants around the campus, in the region, or around the globe" said Jonathan. In his presentation, he gave a short summary on national research and education networks in the region and their peering arrangements with other global NRENs. He concluded: "Action needed to join our networks together"

*Mr John Dyer, "Future of National Research and Education Networks", TERENA, Netherlands*

The National Research and Education Networks (NRENs) pioneered the development of computer networking and services in Europe over the last 25 years. John Dyer highlighted the future business of NRENs 1) Technical: Provider, Integrator, Independent & Trusted Advisor 2) Business: Aggregator of Demand, Centre of Legal & Contractual Expertise, and Advocate & Lobbyist to Regulators & Government.

*Mr Yves Poppe, "R&E Networking: essential for e-AGE nations and economies", CANARIE, Canada*

The Canada's Advanced Research Communications Infrastructure (CANARIE) was established to improve the effectiveness of research in Canada. CANARIE connects one million users at 1,100 institutions using 19,000 km of fiber at 100 Gbps capability. That's 60,000 times FASTER than a typical residential Internet connection. CANARIE has international connections to 100 countries and over 100 peer networks. "CANARIE doesn't do it alone, our provincial and territorial R&E networks amplify Canada's digital power", Said Yves.

*Dr Emad Al Huseini, "trends of e-infrastructures and research in Iraq", IC commission, Iraq*

In his speech, Dr Emad gave an overview about the history of the network in Iraq, and the development of e-infrastructure of research and education through the last decade. He emphasized the role of ASREN in supporting the development of Iraqi NREN and willingness to cooperate to building research communities and linking at the Arab regional level. Dr. Emad presented technology plans in Iraq towards dark fiber and communication links connecting all universities and educational institutions.

*Dr Salem Al-Agtash, "Towards a Pan – Arab e-Infrastructure", ASREN/ German-Jordanian University, Jordan*

Dr Al-Agtash gave a brief history of ASREN and its plans towards establishing a Pan – Arab e-infrastructure network. He presented the challenges of ASREN and to try to learn from the experiences of other regions. Dr. Al\_Agtash gave an overview on ASREN involvement in several EU funded projects including EUMEDConnect3, Eumedgrid support, and Chain projects. ASREN main plans include create acceptance and awareness at the Arab regional level, launching research Arabia initiative, creating research funding, and establish coalitions at the technical level to help support and move towards developing a pan-Arab e-infrastructure.

## 5.4 EUMEDCONNECT3, an enabler



*Mr Daniel Weiss, "EC activities and support in ICT in the Mediterranean region", Economic Cooperation, EC (Chair)*

Mr Daniel speech focused on EuropeAid activities to support ICT in the Mediterranean region. IS cooperation is to establish a fruitful dialogue in the field of ICT with the Mediterranean Partners Countries (MPCs), in order to jointly exploit the potential of these technologies and foster growth, competitiveness, social cohesion, and cultural diversity. The details of IS cooperation, policy and projects cooperation will be addressed in this presentations.

*Mr David West, "Regional network for Research and Education", DANTE, UK*

Developing the regional network for research and education is the main objective for the EUMEDCONNECT Project which started in 2004, EUMEDCONNECT2 project started on 2008 connecting the Arab MED Countries, and now the EUMEDCONNECT3 project with Algeria, Morocco, and Palestine as the first connections. David West highlighted the main critical success factor which includes investing in NRENs e-Infrastructures and organization and focus on supporting users and regional cooperation.

*Mrs Federica Tanlongo, "Enabling Research collaboration: NRENs experiences in Europe and challenges ahead", GARR, Italy*

NRENs created all across Europe and worldwide since 20 years and quickly became a success model, they became the founding blocks of Regional Networking. Federica highlighted the next steps to take care of: 1) UBIQUITY: Widespread access, diverse devices, Bridging Digital Divide 2) FLUIDITY: Citizen science, New places for knowledge creation, and 3) MOBILITY: Global science, Virtual communities, Geographical location becomes unimportant.

*Mrs Aouaouche El-Maouhab, "Algerian research and education network", CERIST perspective, Algeria*

ARN was established to provide communication and technological infrastructure to scientific community. It provides the R&E communities with Grid, eLibrary and eLearning Services. It has an international connectivity through GEANT and commercial provider. ARN was the first to support the calls for Arab regional Infrastructures starting from Rome Declaration to ASREN and will continue to support these calls. Aouaouche went through the new architecture of AREN and presented the recent activities in the NGI of Algeria. A

*Dr Amjad Abu Zaid, "Palestinian research and education network", Ministry of ICT, Palestine*

The new Academic Research and Education Network of Palestine is now active and running with plan to connect all Universities in Palestine. Another track is being discussed for schools. This network is being built on PALTEL infrastructure. Palestine is connected to EUMEDCONNECT3 at 45 Mbps and planned to upgrade to 155 Mbps. Palestine will join ASREN and will require the support of ASREN and EUMEDCONNECT3 to provide training and support.



## 5.5 Research Networking



*Dr Paul Lefrere, "Emerging Technologies and Infrastructures - anticipating user needs", Open University, UK*

Dr Paul presented the concept of emerging technologies and infrastructure, and exploiting emerging opportunities created by networks and their users. The focus would need to be on the Network, e.g., e-infrastructure used for e-learning, e-research and related capacity building, using more authentic e-assessment to help learners to adopt new practices. The type of application can also be of impact on education, such as: use electronic lab notebooks to record work, data mine them via networks to give formative feedback. Dr Paul emphasized that it is important to look beyond uses, with focus on New opportunities and jobs; Data-mining of what current users do; Shared insights into problem-solving; Open process transfer, to new users; More authentic contexts for learning; More authentic forms of assessment; Greater capacity to absorb innovations and cope with change.

*Dr Anton Mangstl, "KM, ICT's for development and e-learning initiatives in the agricultural sector", GJU, Jordan*

E-Agriculture Community of Practice is about reinforcing the value of global dialogue and cooperation to address emerging issues around the role of ICT as an instrument of sustainable rural development. Dr. Anton presented the Coherence in Information for Agricultural Research for Development (CIARD) initiative with the vision to make public domain agricultural research information and knowledge truly accessible to all. The objective of CIARD is to collaboratively develop effective and coherent institutional approaches to sharing agricultural science and technology information based on common standards

*Dr Jomana Amara, "Energy Security in a Turbulent World", Naval Postgraduate School, USA*

As a result of two related and compelling issues: volatile and rising energy prices and increasing global concern about climate change, threats to energy security and adverse effects of energy usage on the global climate, have emerged as key issues in national energy security policy. Energy security which translates to national concerns about the security of energy supplies is a driver of international relations and has the potential to create conflict over scarce energy supplies. Nations need to be secure in terms of the source, flow and distribution of energy. In this presentation we will review the one proposed method for improving energy security which is the adoption of distributed power systems.

*Mr Baher Esmat, "Internationalized domain names: opportunities for the Arab world", ICANN*

In November 2009, the Internet Corporation for Assigned Names and Numbers (ICANN) launched the Internationalized Domain Name (IDN) Fast Track Process, thereby opening up for countries and territories to receive their country code top-level domain names (ccTLDs) in their official languages and scripts. As of October 2011, 30 IDN ccTLDs representing 20 countries and territories have been added to the DNS root, and more are in the pipeline. Coming soon is the new generic top-level domain (gTLD) programme aiming at expanding the domain name space and introducing new gTLDs to the root. Such domain extensions could be in any language or script including Arabic.

*Dr Husam Al Olama, "Role of National Research Foundation in promoting research capacity", National Research Foundation, UAE*

In his presentation, Dr. Husam talked about the UAE Higher Education Standards & Institutions (Federal & Non-Federal). he added " the vision of the National Research Fund (NRF) is to support world-class research activities, and create an internationally competitive research environment and innovation system in the UAE. He went through the NRF functions, services and presented its plans and actions.

## 5.6 e-Infrastructure technologies and applications



*HE Dr Isam Zabalawi, "The Role of e-Infrastructure in Reshaping Higher Education", AABFS, Jordan (Chair)*

Technology has often been cited as the major driving force behind innovation in Higher Education and reform. E-Infrastructure is reshaping and eventually revolutionizing both our society and our educational institutions. Universities are moving from Teaching to Learning, Research to Innovation, from Paper Book to eBook, from Classical Library to eLibrary, from Services to Shared Leadership... this is how the Higher education is reshaped, Said Prof. Isam. He also presented the challenges and drew some conclusions specially the necessity of a comprehensive Higher Education MIS and Decision Support System.

*Dr Antonella Fresca, DCNET,INDICATE Coordinator, "Towards a Digital Cultural Heritage e-Infrastructure", Italy*

The INDICATE project is focused on the coordination of policies and best practice regarding the use of e-Infrastructures for digital cultural heritage in countries of the Mediterranean region. This will be accomplished, first, by establishing and nurturing a network of common interest made up of experts and researchers in all the relevant fields. The presentation provided an overview on preparatory actions, the two integrated projects DC-NET and INDICATE and their vision.

*Dr Mubarak Al Magzoub, "Research trends in the Arab Region", Federation of Arab Research councils, Sudan*

Dr. Mubarak presented the vision, mission, objectives and goals of the Federation of Arab Scientific Research Council. He also presented the strategy of the council for the years 2008-2016. Research groups and communities together with research priorities were also highlighted during the presentation.

*Dr Rainer Herpers, "Towards Open Source Software Communities", Bonn-Rhein-Sieg University, Germany*

Dr. Herpers calls for free and open source software communities to support the development of IT-applications and services for the e-Infrastructure. He outlines a project proposal towards developing skills and expertise in free and open source software in a number of Arab universities to provide affordable alternatives to proprietary software, break cost barriers to adopting technologies, and facilitate innovation.

*Dr Mohamad Saraireh, "Center of Excellence for Library Services: Experiences", Yarmouk University, Jordan*

Dr. Mohamad illustrated the stages of establishing the Center of Excellence for Library Services in Public Universities in Jordan. He also presented services this Center has been providing to the member universities. The presentation also provided evidence of the financial benefits that member universities gain, especially in subscriptions to electronic resources. Finally, he outlined the potential services and some of the obstacles.

*Dr Reinhold Poppek, "Sponsorship from companies for research and education in Germany", Poppek law firm, Germany*

Dr. Poppek presented an overview on the German higher education system, mechanism for private involvement in the public universities, the benefits of private involvement, and the organizational structure of private universities. Dr Poppek also emphasized the role of companies in supporting education in Germany and in providing funds for research projects at Universities.

*Mr Aiman Mazahreh, "Integration of ICT services to build a better economy", STS, Jordan*

Arab Countries and Jordan in particular have suffered in recent years from the impact of the Global Economic Crisis, which led to increased debt and huge budget deficit. Governments and Finance Ministers under increased pressure from World Bank and the public to improve conditions have opted to reduce capital expenditure across the economy including the ICT sector. While proper spending to integrate ICT services in to the various activities of the economy should actually help alleviate some of the problems and can build a stronger economy.

## 5.7 LinkSCEEM-2 and High Performance Scientific Computing

*Dr Constantia Alexandrou, "Developing Computational Science in the East Mediterranean region", Cyprus Institute*



Scientific research in a growing and diverse number of disciplines is becoming increasingly dependent on large-scale computational resources. The LinkSCEEM (Linking Scientific Computing in Europe and in the Eastern Mediterranean) will provide with High Performance Computing (HPC) resources sustained by technical expertise and know-how. The infrastructure project LinkSCEEM is a joint collaborative effort of 11 Institutions in Europe, the Eastern Mediterranean and the US, funded in part by the European Commission's 7th Framework Programme. Dr. Constantia also presented the objectives of the project and the implementation roadmap.

*Dr Tryfon Chiotis, "HPC and Cloud Technologies in Greece and South Eastern Europe", GRNET, Greece*



GRNET is state-owned company under GSRT established in 1998. It connects 100 universities, research centers, and academic organizations providing service to around 1.000.000 users using 8410 km fibers backbone. The focus GRNET is on Greek national and South-East European regional developments in areas of HPC and cloud computing and how they complement each other. GRNET provides cloud services including Virtual Private Servers, Public Cloud Service and Online File Storage Service. Dr. Tryfon also presented the High Performance Computing HPC in Greece and the region with highlight on the HP-SEE Project.

*Dr Fotis Karagiannis, "Towards Sustainable Computing e-Infrastructures across the Mediterranean", e-Fiscal*



Over the last ten years countries across the Mediterranean and in particular the EC have made significant investments in e-Infrastructures for scientific computing, notably High Throughput Computing (HTC), i.e. Grids and High Performance Computing (HPC) services including the EUMEDGRID and LinkSCEEM project series. Sustainability of such services is crucial, as the research supported by them is becoming more and more essential– and sustainability can be planned better if the costs are known. The scope of the e-FISCAL project is to analyze such costs, facilitated by national entities (NGIs and HPC centers), compare them with equivalent commercial leased or on-demand offerings and provide an evaluation report.

## 5.8 EUMEDGRID-Support & CHAIN - Sustainability of e-Infrastructures



*Dr Federico Ruggieri, "e-Infrastructure as means for advancing research and education", INFN, Italy (Chair)*

It is clear that many research challenges require community effort, and research is increasingly digital with increasing amounts of data. That's why International/intercontinental collaborations need truly interoperable infrastructures across the world. Dr. Federico's presentation provided an overview on the European Grid Infrastructure, EUMEDGRID Support project & its partners, and AFRICA & Arabia regional operations center.

*Dr Yousef Nusseir, "Regional Integration for Building the Information Society", Former Director, ESCWA*

One of the more important characteristics of the Information Society is its cooperative participatory approach. Various stakeholders from different sectors of society should coordinate and harmonize their respective activities in order to develop a sustainable integrated information society. The harmonization of cyber legislation is another area of extreme importance to the process of regional integration. Extensive efforts in this area have been initiated and implemented by the Economic and Social commission for Western Asia (ESCWA), in cooperation with other Arab regional and national organizations.

*Dr Ognjen Prnjat, "CHAIN eInfrastructure sustainability recommendations and existing Sustainability guidelines", GRNET, Greece*

The CHAIN project, started on the 1st of December 2010, aims to coordinate and leverage the efforts made over the past 6 years to extend the European e-Infrastructure (and particularly Grid) operational and organizational principles to a number of regions in the world. To support long-term Grid intercontinental collaboration, the issue of national-level sustainability of Grid infrastructures is paramount. Ognjen talk focuses on sustainability recommendations defined by the CHAIN project, with the focus on the recommendations for the Mediterranean region covered by ASREN. Moreover, the concrete sustainability guidelines systemized and provided by the project will be presented. The main vehicle for sustainability on the national level is the concept of a National Grid Initiative (NGI), and a clear step-wise approach to setting up NGIs, based on the model of the SEE-GRID project, will be also presented.



*Mr Serkan Orcan, "Perspectives on the Turkish Research and Education Network, ULAKBIM Experience", Turkey*

Established in 1996, National Academic Network and Information Center (ULAKBIM), has been operating Turkish Academic Network (ULAKNET) to build a nation-wide research network for the members of national innovation system for sixteen years. In his presentation, Serkan gave an overview of telecommunication sector and evaluating current performance of the ULAKNET. It will be focused on service/e-infrastructures provided through ULAKNET and future networking necessities of national innovation system. He also presented some issues, including the e-infrastructures integration with Arab states that need to be addressed by future efforts for Turkish research and education network.

*Dr Mohamed Jemni, "e-Infrastructure for Inclusion of People with Disabilities", University of Tunisia, Tunisia*

Dr. Mohamed presented the WebSign project developed in UTIC Research Laboratory of the University of Tunis with the aim of improving communication with deaf people thanks to the ICT. The objective of our project is to develop a Web-based interpreter of Sign Language (SL). This tool would enable people who do not know SL to communicate with deaf individuals and, therefore, contribute in reducing the language barrier between deaf and hearing people. In his presentation he presented the project and in particular the use of e-infrastructure, for instance Eumedgrid platform, to obtain the biggest dictionary of sign language in the world i.e. a dictionary containing more than 52 millions words in sign language.

## 5.9 ASREN: Towards developing Arab Regional e-Infrastructure



### *Mr Yousef Torman, "the Jordanian Universities Network", JUNET/ ASREN, Jordan (Chair)*

Yousef gave a brief presentation about the Jordanian Universities Network (JUNet). The presentation included the infrastructure, services, plans and challenges. Yousef also touched briefly the opportunities and NEW challenges facing the development of ASREN.

### *Dr. Dahir Hassan, "Perspectives on the Somalian Research and Education Network", Somalia*

Dr. Dahir presented SomaliREN, its vision, mission and objectives. Services include Internet connectivity, Access to digital libraries, Creation of academic content by organizing events and multidisciplinary symposiums, Provision of video-conferencing facilities to overcome the shortage of qualified academic staff. Challenges include Lack of adequate telecommunications infrastructure and Lack of sufficient technical skills and expertise.

### *Mr Sa'ed Awienat, "e-Infrastructure in Qatar", Qatar Foundation, Qatar*

Sa'adi presented the vision of Qatar Foundation in supporting Research and Development through building Qatar's innovation and technology capacity by developing and commercializing solutions through key sciences. QF Research and Education Network is a Foundational Network Technology Platform to support the Vision & Growth of QF whilst enabling continuous delivery of Services, Programs & Centres. Current Backbone speed is 160Gbps (4 x 40Gbps at the core).

### *Dr Ahmad Dabbagh, "ANKABUT experiences in the United Arab Emirates", UAE*

Dr. Ahmed presented Ankabut, the UAE NREN which connects 53 Academic and Research sites at 1 Gbps. It is connected to Internet2 at 155 Mbps. Ankabut provides DNS, FTP, email and webhosting services and now implementing a network wide Video Conferencing MCU. He went through network design and usage benchmarking. Ankabut participated in many activities in the EUMEDGRID Support project and now an official Certificate Authority. Ankabut participated very actively in the planning of ASREN.

*Dr Ayman Bahaa, "Experiences in Egypt University Network", Egypt*

Dr. Ayman talked about the Experiences in Egyptian Universities Network, EUN was found in 1987 and now serving 19 Public universities with 100K+ staff and researchers and 1.8M students. EUN was a pioneer as the first ISP in the region and the first to be connected to R&E networks in Europe and the US. EUN is now Infrastructure Service Provider (ISP) for Educational Services (Digital Libraries, E-Learning), Collaboration platforms (social networks and market place), Business Automation (MIS, E-Gov.), High Performance Computing and Research Support Platform.

*Dr Mohamed Awad, "Perspectives on the Sudanese Research and Education Network", Sudan*

Dr. Mohamed presented the SudREN as the Sudanese NREN which was founded in 2004 with 32 member institutions and being licensed as ISP. This network is based on the National Optical Fiber. He presented the network design, traffic and usage. SudREN is a member of UbuntuNET alliance, AfricaConnect project and planned to be official shareholder of ASREN. Services provided by SudREN include Digital Libraries and Open Access, video conferencing and e-Sciences project.

*Mr Radi Fassed, "ASREN: Towards developing Arab Regional e-Infrastructure" ZAIN, Jordan*

Mr. Radi stated that ZAIN Jordan will be the circuit provider for connecting Jordan to the GEANT under the EUMEDCONNECT3 project. He also than ZAIN is building extensive fiber network across Jordan and Middle East. ZAIN is member of RCN consortium building an 800G Terrestrial fiber linking UAE, Saudi Arabia, Jordan, Syria and Turkey. ZAIN also provides added value services including security and cloud computing.

*Dr. Said Al-Mandhari, "Oman Research and Education Network OMREN, The Research Council, Oman*

"The Research Council, established in 2005, carries the responsibility of the Oman Research and Education Network", said Dr. Said. TRC is responsible for the Oman Knowledge Identification Federation System (Oman-KID) which is an authentication system connecting local academic and research organizations. Oman Digital Academic Library (ODAL) is another service which provides shared depository of all academic and research materials gathered from all organization and institutions connected to Oman-Kid.

*Dr Reinhold Poppek, "ASREN, legal perspective", Poppek law firm, Germany*

Dr Reinhold as the legal advisor of ASREN presented the legal status of ASREN in Germany as a non-profit company, its bylaws, and articles of association. He also presented the procedure on how to join ASREN as a shareholder and that there will be no financial obligations for the Arab NRESs to become shareholders of ASREN.



## 6. Internet2 Emerging NRENs Middle East SIG Meeting

### Internet2 SIG Meeting

Amman 13 December 2011

**Venue:** Four Seasons Hotel, 5th Floor meeting rooms

John Chapman welcomed everyone as Chair of the Internet2 Emerging NRENs Middle East Special Interest Group. Internet2 supports emerging NREN special interest groups for South Asia, Caribbean, Africa, and Middle East meeting twice per year in the United States at the Internet2 spring and fall member meetings. Their mission is to bring together the international community to address advancing the state of high-performance networking for research and education in underserved places around the world; providing a forum for the sharing of information, challenges, opportunities, and successes, and discuss possible roles for the Internet2 community. Additionally, the Middle East SIG holds a minimum of one meeting annually in the regional where attendees share local successes and experiences, discuss challenges, and support each other's efforts towards NRENs in their countries.

John Chapman then introduced Dave Lambert, Internet2 President and CEO who provided an update on Internet2's programs and priorities in the United States and globally. In his presentation Mr. Lambert reviewed the history of research and education networks. In the 1990's R&E networks accelerated innovation at bandwidths grew from 2.4 kbps to 10 mbps. In the first decade of 2000 bandwidth grew to 10 Gbps but innovation slowed and R&E leadership faded. We are currently seeing new bandwidth growth to 100 Gbps and beyond. Here is an innovation opportunity. Mr. Lambert asks "Where is the R&E community?"

Dr. Yousef Torman presented an update on JuNet (Jordanian University Network) and ASREN. JuNet connects 11 universities via 1 Gbps optical fiber. He went on to present a prehistory to ASREN and its current state.

At a practical level Dr. Hatem Hamad made a presentation regarding research into Shibboleth single sign-on as an authentication protocol for access into web-based educational resources at the Islamic University Gaza. The investigators found a number of challenges in the protocol and recommend some areas for further investigation.

Dr. Ahmed Dabbagh spoke on the successes and challenges of ANKABUT, the national research and education network of the United Arab Emirates. ANKABUT now researches 53 academic public and private institutions in the UAE. It is an Internet address registry for the UAE and is active in EUMedGrid.

Sa'id Aweinat, Qatar Foundation Director of IT, spoke on the work of Qatar Foundation in the areas of education, science and research, and community development. Qatar Foundation hosts more than 50 institutions and organisations. He described their four challenges as: massive scope and growth, urgency and time compression, complexity and diversification, and availability and performance. "The Foundation is developing a new, advanced network on Education City, QFREN, a foundational network technology platform to support the vision and growth of Qatar Foundation whilst enabling continuous delivery of services, programs and centres."

The Research Council (TRC) Oman is in the early stages of creating a national research and education network in Oman called OMREN. Said Al Mandhari presented on their progress, current TRC e-services, the Oman Knowledge Identification Federation System (Oman-KID), and the Oman Digital Academic Library (ODAL). To enrich the content of the ODAL, TRC selected to be active member on Open Course Warehouse consortium OCW. Mr. Al Mandhari concluded his presentation with a recommendation to kick off an initiative to establish decentralized web based digital repository system called Arab State Digital Academic Library (ASDAL).

GLORIAD is a cooperative R&E network ringing the northern hemisphere linking scientists, educators and students in Russia, USA, China, Korea, Netherlands, Canada, the Nordic countries, Egypt, India, and Singapore with specialized network services; co-funded, co-managed by all international partners. JJ Jamison presented an overview of GLORIAD and its exchange points around the world. He challenged the attendees that there are currently no exchange points in the Middle East.

Yves Poppe, Tata Communications, followed with a summary of the current and future submarine cable services into the Middle East. Mr. Poppe titled his presentation "2012 The year of regional NREN connectivity?" There is significant new capacity coming online with new services TGN-Gulf and GBI, upgrades to SWM4 and Falcon, and planned

services from Orascom, JADI, and RCN. There is optimism that with all the new capacity, the Middle East should see a significant drop in per Mb cost.

Joining the meeting from New Delhi, India, Dr. Anil Srivastava, Open Health Systems Laboratory, Johns Hopkins, presented on network enabled cancer research in the Middle East. Internet2 and Open Health Systems Laboratory are working together to connect cancer centers across the world in

a network—Cancer Collaboratory—using RENs. Medical research is increasing reliant on use of biomedical informatics. Two examples of supporting initiatives are the cancer Biomedical Informatics Grid (caBIG) and TeleSynergy, an NCI initiative to connect cancer researchers through videoconference. King Hussein Cancer Center, Amman, Jordan is one of the TeleSynergy nodes. Dr. Srivastava is looking to identify one or more institutions in the Middle East for further collaborations.

The final presentation, by Alaa AL-Din Al-Radhi, President of the IPv6 Forum Jordan Chapter, discussed IPv6 and its current state of adoption in the Middle East. A number of countries have established test labs and workshops. The next milestone needs to be deployment. Ankabut has deployed IPv6 on its NREN. It is hoped others will follow shortly.

The meeting closed at 2 pm with attendees rejoining the e-AGE conference for lunch.

## 7. EUMEDCONNECT3/ ASREN Meeting

### EUMEDCONNECT3 First Project Meeting

Amman 14-15 December 2011

**Venue:** ASREN Offices – 104 Mecca Street, Talal Abu-Ghazaleh Graduate School of Business Administration

**Meeting room:** Business Forum

Dr Talal Abu Ghazaleh welcomed everyone to the first EUMEDCONNECT3 meeting as Chairman of ASREN. He wished the meeting every success, building on the very successful outcomes of the previous days' plenary meetings. EUMEDCONNECT3 status and opportunities to participate

David West also welcomed everyone in his capacity as project manager at DANTE for EUMEDCONNECT3. This project follows from previous phases which have established since 2004 a regional network for Arab countries around the Southern and Eastern Mediterranean with funding support from the European Commission. This third phase runs from September 2011 until 2014 with further funding support from the EC for beneficiary Arab countries in order to continue to develop the regional e-Infrastructure and transition it to ASREN. Initially NRENs of the following countries are participating with EC funding support for international connectivity for research and education which is connected to GEANT (Pan-European R&E network) and via GEANT to INTERNET2:

Algeria – 155 Mbps

Morocco – 40 Mbps

Palestine – 45 Mbps

It is planned that the EUMEDCONNECT3 network will be further developed during 2012 working closely with ASREN and the project is interested in the participation of the following additional countries:

- Partners of earlier EUMEDCONNECT phases (Egypt, Jordan, Syria, Tunisia) that wish to re-join.
- NRENs in other neighbouring beneficiary countries such as Lebanon and Libya
- Interconnection with NRENs in GCC countries at the NREN's cost.

DANTE is already in discussion with partners in many of these countries. Others wishing to discuss connecting to EUMEDCONNECT3 should contact David West [david.west@dante.net](mailto:david.west@dante.net) or ASREN representatives.

### Information exchange amongst Arab NRENs

Presentations were given by:

- Existing EUMEDCONNECT3 partner representatives: Mme El Maouhab (Algeria), Amjad Abuzaid (Palestine) showed their NRENs had grown in recent years and how they had been supported by earlier EUMEDCONNECT phases.
- Other NREN representatives: Ayman Bahaa (Egypt), Yousef Torman (Jordan), Mohamed Jemni (Tunisia), Ahmed Dabbagh and Husam Sultan Al-Ulama (UAE), Dhiyab Salim Al Abri (Oman). These presentations focussed on current status and plans. Common themes were to find ways for cost effective interconnections, and to extend the network connections within the Arab region, and to focus on using the networks for research and other important applications such as digital libraries and environmental analysis.
- Sharifa Hajjat of MTC (UAE) updated participants on use of technology to advance education in the Arab region and to encourage internet safety for children

### ASREN status and plans

Salem Al-Agtash presented ASREN's key plans for developing and promoting pan-Arab e-Infrastructures. These include developing a service portfolio, supporting use of research and education networks, and developing financial sustainability in the future. He outlined ASREN's concept of a multi stakeholder consortium of key institutions to raise awareness and develop policies for longer term sustainability including establishing a charitable fund. The plan was for this to be led by ASREN with participation of the EC, INTERNET2, the World Bank and regional agencies. More details are provided elsewhere in the proceedings.

He also stressed the non-profit status and spirit of ASREN and the simple joining procedures for further partners to become stakeholders. Reinhold Poppek elaborated the joining procedure which requires only a certificated letter signed by a legal representative of the prospective stakeholder. No financial commitment is required as under the Agreement TAG will allocated part of its initial stakeholding to additional approved NREN partners without charge. There was some discussion about the details including clarifying in the ASREN bylaws the types of additional members that would be permitted. ASREN agreed to incorporate this point in the next revision of the bylaws. Any partners wishing to discuss further should contact Salem Al Agtash: [alagtash@ASRENOrg.net](mailto:alagtash@ASRENOrg.net)

### **Next Steps**

A number of activities were proposed to involve partners in the development of EUMEDCONNECT3 and ASREN. These included:

- The opportunity for ASREN to play a part in setting up and running neutral internet access points within the region
- Collaborating with regional operators to the make the case for NRENs and raise the netural network access point, the idea to be developed by ASREN, working with DANTE and interested EU NRENs
- To prepare a White Paper on the benfits and opprotunities of research and education networks for Arab countries. Ayman Bahaa offered to lead this, working with ASREN
- The idea of a connectivity survey, to be undertaken by ASREN with all interested NRENs in the region
- A survey of Arab NREN training needs and some early programmes to address these needs, to be undertaken by ASREN with European NRENs and DANTE, with and for interested Arab NRENs

It was agreed there would be 2 – 3 EUMEDCONNECT3/ASREN meetings per year and monthly audioconferences to discuss progress and plans.

David West thanked all participants for their constructive participation. The meeting closed with lunch.

## 8. EUMEDGRID Support Meeting

Amman 14-15 December 2011

**Venue:** ASREN Offices – 104 Mecca Street, Talal Abu-Ghazaleh Graduate School of Business Administration

**Meeting room:** Business Forum

### 14 December 2011

The meeting started after lunch with an introduction of F. Ruggieri/INFN (EUMEDGRID-Support Project Director) thanking ASREN and TAG for the hospitality.

The agenda was shown and it was pointed out that a very important topic was the Final Review of the project that has been agreed will be held in Brussels on 17 February 2012 in the European Commission premises. A specific item in the last part of the meeting is dedicated to the organization of this important event.

### News from the Partners (round table)

All the attending representatives were invited to make a brief status report of their organization and country. All the partners present at the meeting agreed on the signature of a Declaration to support the Africa & Arabia ROC and the EUMEDGRID Infrastructure beyond the end of the project (31st December 2011). In an informal ceremony all the representatives of the partners then signed the Declaration.

### EUMEDGRID-Support Detailed Work-Plan Update

M. Reale/GARR (Technical Manager) made an exhaustive presentation of the achievements of the project during the last 12 months and proposed some topics to be addressed during the presentations of the WP managers that followed.

### CHAIN and ASREN

S. Al-Agtash (ASREN) made a brief introduction of the CHAIN project that was recently joined by ASREN as a partner. The role of ASREN is to represent the Arab States in a large inter-regional context where the experiences of different infrastructures in several regions of the world (i.e. Latin America, Africa, Europe and Asia) will be exchanged and a common vision towards a road-map for interoperations will be proposed.

### WP2 – Communication & awareness creation

Fotis Karagiannis/TRUST-IT presented on behalf of Sara Garvelli the status report of the dissemination and pointed out the successful organization of the events during 2012. In particular the EUMEDGRID User Forum organised in Lyon (France) in September 2011 during the EGI Technical Forum was very successful and followed by many people also via web. The eAGE in Amman was also a very well organised event thanks to ASREN and a report for the European Commission (Deliverable D2.3b) was under preparation.

### WP3 - Supporting technical application developments and users

Riccardo Bruno/COMETA presented the state of the art of the applications and made a technical description of the Science Gateway recently developed and implemented in the context of EUMEDGRID-Support. This new approach allows to simplify the access of users to applications running on a Grid Infrastructure without the need of technical training on the grid technology, using a combination of portlets developed in a Liferay portal and Authentication based on federations of identity providers. This is considered a major breakthrough for a rapid increase of the number of users of the infrastructure.

15 December 2011

#### **WP4 - Supporting EUMEDGRID e-Infrastructure sustainability**

Mario Reale/GARR presented the plan for sustainability that is based on the following pillars:

- The Africa & Arabia Regional Operation Centre that will be supported by the partners, ASREN and by the CHAIN and EPIKH projects.
- The migration of some of the services to partners' premises such as: Algeria, Morocco, Jordan.
- The coordination of future activities by ASREN that is also partner in CHAIN.
- The availability of new applications on the Science Gateway and the possibility to deploy new ones in the partner countries.
- The accreditation of the National Certification Authorities in Algeria, Jordan and Syria and the advanced process towards accreditation of Tunisia and Egypt that will possibly be accredited in January 2012.

#### **Plans for the Final Review**

A detailed agenda for the review was proposed and discussed. It was decided to have a preparatory meeting and a rehearsal in Brussels the day before (16 February 2012). Yannick Legre/CNRS-HealthGrid offered the opportunity to be hosted by the Antenne interregional, Auvergne-Centre-Limousin in Brussels and this was approved by the collaboration.

The meeting was closed at 14:00

## 9. Declarations

e-AGE concluded the following declarations and recommendations:

- To address thank you and appreciation telegraph to His Majesty the King in the name of the participants for his Majesty's support
- To establish a multi-stakeholder partnership towards developing pan-Arab e-infrastructure with the main partners composing: the World Bank, the League of Arab States, the UN ESCWA, the Arab NRENs, the European Commission support projects – EUMEDCONNECT3, the US Internet2, the Arab ICT Organization
- To select Jordan as a host of ASREN activities towards developing a regional hub for e-integration of educational networks in the Arab countries.
- To adopt ASREN programs and strategy for the upcoming stage, with focus on a pan-Arab e-infrastructure
- To plan for the second e-AGE in December in 2012

It was also concluded on a concrete basis:

- To accelerate the integration of the 3rd phase of the EUMEDConnect project, which is based on supporting integration of e-infrastructure and connecting them with the European Network for Scientific Research.
- To emphasize the importance to extend effective participation of ASREN, integrate Arab unified e-infrastructure and promote the role of research and education communities in the Arab world.
- To support sustainable research and educational network in the Arab region connected with European, the US and other regional networks all over the world.
- To benefit from and build upon the success of EUMED previous meetings in the field of developing cooperation and coordination between Arab and European researchers, and should tackle joint scientific research projects that use scientific infrastructure between countries.
- To encourage and attract donors, research foundations and supporting organizations in the Arab region, Europe and the world to support the ASREN development as well as the research infrastructure in the Arab world.
- To promote private sector's participation and cooperation in developing research and education.

### Organizers and partners

The Platform was organized by ASREN in cooperation with:

- Jordanian Ministry of Information and Communications Technology
- Jordanian Ministry of Higher Education and Scientific Research
- League of Arab States
- Talal Abu-Ghazaleh Organization
- Association of Arab Universities
- Delivery of Advanced Network Technology to Europe Ltd (DANTE)
- European Euro-Mediterranean Connect project (EumedConnect3),
- US Internet2 Special Interest Group Middle East,
- Jordanian University Networks
- German-Jordanian University
- European Euro-Mediterranean Grid support project (EMEDGRID-Support)
- Coordination and Harmonization of Advanced e-Infrastructure (CHAIN)
- LinkSceem

### Sponsors:

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- ZAIN Jordan
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#### Gold

- Orange
- Microsoft

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### **Program Committee**

- Salem Al-Agtash, German-Jordanian University/ASREN, Jordan
- Federico Ruggieri, The Italian National Institute of Nuclear Physics, Italy
- Ralf Danzer, Saarland University of Applied Sciences, Germany
- Roberto Barbera, University of Catania, Italy
- Paul Lefrere, Open University, UK
- Tapio Varis, University of Tampere, Finland
- Rainer Herpers, Bonn-Rhein-Sieg University of Applied Sciences, Germany
- Jomana Amara, Defense Resources Management Institute, Naval Post Graduate School, USA
- Amjed Al-Fahoum, Yarmouk University, Jordan

### **Organizing committee**

- Salem Al-Agtash, German-Jordanian University/ASREN, Jordan
- Yousef Torman, The Jordanian University Network
- David West, Delivery of Advanced Network Technology to Europe Ltd
- Sara Al-Eisawi, Arab States Research and Education Network
- Jonathon Chapman, US Internet2 Special Interest Group Middle East,
- Federico Ruggieri, The Italian National Institute of Nuclear Physics
- Haithem Qaisi, Ministry of Information and Communication Technology
- Mustafa Nassereddin, Talal Abu-Ghazaleh Organization
- Natalie Keuroghlian, European Euro-Mediterranean Connect project
- Federica Tanlongo, GARR, Italy
- Valentino Cavalli, Trans-European Research and Education Networking Association