



ESCWA United Nations Economic and
Social Commission for Western Asia

ESCWA Technology Centre

Newsletter Second Half, 2013 Amman - Jordan

www.etc-un.org

The Broken Cycle: Universities, Research
and Society in the Arab World

Proposals for Change

Available study online (En, Ar)



Science, Technology, and Innovation (STI)

Industry in the Arab Region is challenged by the dynamics of the region and needs new opportunities to overcome the new challenges.

ETC identified this problem and published the study “Industrial outsourcing opportunities in Arab countries” for scouting the ESCWA region competitive production opportunities useful in the global value chain for regional partnerships and/or outsourcing. The study adopted one sample competitive industrial sector (phosphates and fertilizers) strong candidate for regional and global partnerships and identified potential stakeholders towards networking. Other identified sectorial opportunities might be developed similarly in the future. During 2014, ETC will facilitate possible productive linkages accordingly.

STI Observatories and policies in the region have been successful in some Arab countries and this experience needs to be disseminated to others.

ETC received from the Yemeni Ministry of Higher Education and Scientific Research a request to provide assistance in the establishment of STI observatory in Yemen. STI Observatories aim to institutionalize the standard measurements, analysis and foresight of STI system components at the national level to generate required evidence to guide and support policy makers.

Much has been reported about inventions data from Arab countries stressing as expected the small number of patents registered locally and internationally.

ETC identified the published patents during last 3 years in 14 Arab countries and created a Data Base of STI regional inventions. The collected information covers for each invention: abstract, name of inventors, affiliation, country and claims. This DB can be used by the industry to find promising inventions and innovators, and it can also support the researchers to capitalize on what has been achieved in the region. ETC is therefore promoting local innovation efforts through posting the findings on line and marketing the locally registered Patents.

Number of registered patents in the Arab countries:

Country	Number of Patents
Bahrain	6
Egypt	45
Iraq	1
Jordan	22
KSA	26
Kuwait	2
Lebanon	2
Morocco	122
Oman	1
Qatar	22
Syria	4
Tunis	8
UAE	6
Yemen	7
Total	274

Innovation Development and Management

ETC updated the Data Base on Research and Development Centers in the Arab Countries.

The DB lists centers' main activities and capabilities as posted. Users can find the exact match for their needs in each country. The DB can be used by industry and other stakeholders looking for local and regional R&D capacity in specific fields.

R&D centers in Arab countries :

Country	Number of Entries
Egypt	83
Iraq	162
Jordan	38
KSA	49
Kuwait	10
Lebanon	24
Libya	26
Morocco	27
Oman	13
Palestine	19
Qatar	38
Sudan	18
Syria	16
Tunis	24
UAE	27
Yemen	15
Total	589

In 2012 the Technology Commercialization tour was a success, ETC in partnership with iPark Jordan and Licensing Executive Society- Arab Countries organized a second season and launched the sub regional Technology Commercialization Tour www.tour-comm.com. This tour expanded to new countries in the ESCWA region, such as Tunis and Morocco. The tour facilitated the matching of investors with innovators. During November, in Tunis, meetings of evaluated and selected startups from Morocco (4) and Tunis (4) took place, and in Egypt (7) scheduled meetings for local startups were satisfactory seeded for potential deals that ETC will track during 2014. This will support the growth of technology startups in need of investments.



The World Association of Industrial and Technology Research Organizations (WAITRO) forum was hosted by the Royal Scientific Society in Sep 2013 in Amman under the Theme: Technology commercialization.

Innovation Management

ETC presented the Technology Commercialization Tour 2012 findings. WAITRO is a global R&D platform for productive collaboration among industrial research centers and institutions.

Beirut Energy Forum was held in September 2013 and is the largest event in Lebanon related to energy efficiency, renewable energy, and green buildings. ETC organized a panel on “Green Energy opposite views.” ETC Executive Director participated as a panelist and facilitated the debate. Beirut Energy Forum provides a platform for professionals, policymakers, practitioners, donors, academics, and private companies to meet and discuss the latest updates on the Lebanese, Arab, and Euro-Mediterranean initiatives in the renewable energy and energy efficiency sectors.

The 2013 Global Clean Energy Forum organized by the New York Times (International Herald Tribune) was held in Qatar in October 2013.

It brought together major energy companies, governments and investment banks, to explore the new energy reality – that of abundant fossil fuels, cooling political sentiment towards renewables and risk-averse investors. ESCWA Technology Centre Executive Director participated as a speaker in the Innovation session to highlight the regional capacity in R&D and calling for effective sustained technology transfer with the energy multinational corporations.



ESCWA Technology Centre in collaboration with the Center for Mediterranean Integration (CMI), the European Investment Bank (EIB), and the World Bank organized a regional workshop in November 2013, at the El Hassan Science City- the Royal Scientific Society, in Amman – Jordan. The workshop aimed to highlight the importance of embracing a comprehensive National Innovation System (NIS) approach, identify the challenges and opportunities to NIS in the Arab region, present methodologies for measuring its functioning and effectiveness, and discuss the requirements to set up effective national innovation observatories. The two days’ workshop brought together NIS representatives’ from the MENA region as well as experts from international organizations like the Technopolis Group and the OECD.

Regional Complementarity



ESCWA Technology Centre, Arab Industrial Development and Mining Organization (AIDMO), Public Authority for Industry of Kuwait, Islamic Educational Scientific and Cultural Organization, and Kuwait Foundation for the Advancement of Sciences organized the Industrial Competitiveness through Innovation Forum on 11, 12 Nov 2013 in Kuwait. The forum had several objectives among which to promote a culture of creativity, innovation and support, transfer and disseminate advanced technologies of Arab research institutions and production. It also focused on

approaching decision and policy-makers to find practical recommendations in the form of initiatives that can be implemented in all targeted sectors. ETC, AIDMO and KISR identified 5 priority projects in renewable energy, water and food technologies that will be jointly developed among research institutions in Jordan, Kuwait and Egypt during 2014.

ETC presented the study that was co-developed with iPark-Jordan “Landscape mapping for regional Incubators” in the regional workshop held in Casablanca Morocco on Governance and Management of Science and Technology Parks in the MENA region.

The workshop was organized in November 2013 by Center for Mediterranean Integration, the European Investment Bank and the Islamic Educational, Scientific and Cultural Organization.



1. ETC and Lebanon Science & Technology Park (LSTP) organized the workshop on Innovation and Commercialization for Economic Development in Tripoli during November 2013 as part of the LSTP advisory request.



2. Qatar Foundation for Education, Science and Community Development (QF) announced the return of the science and technology edutainment reality TV program Stars of Science, on MBC4 for an exciting fifth season. Dr. Fouad Mrad – Executive Director of ETC and Permanent Jury Member in the program participated in the launching event of the 5th season which was held, on 9 Sep 2013, in Doha.



3. ETC is serving the Kuwait Institute for Scientific Research (KISR) on supporting commercialization activities of research outcomes as part of the technical assistance request.

4. ETC and other ESCWA divisions are coordinating efforts on serving the advisory request for industrial map and classification guide in Jordan with the Ministry of Industry and Trade.

5. ETC is working with the Jordan Chamber of Industry to identify the areas that need support and complementarity. ETC will be providing technical assistance in three main fields (packaging, food industry and cosmetics).

6. ETC and the National Centre for Scientific and Technological Research (CNRST) are planning to set up a National Technology Transfer office for Moroccan universities and research centers.

Jordan Economic Breakfast Series

The Young Entrepreneurs Association and Friedrich Naumann Foundation for Liberty organized the Jordan Economic breakfast featuring "Science, Technology and Innovation in the Arab world: Cooperation, Competition, Complementarity?" on 12 September 2013 in Amman.

Dr. Fouad Mrad- ETC Executive Director was the key note speaker of the event.

ETC worked with Royal Scientific Society of Jordan to identify priority research projects ready for identification in renewable energy and water.

ETC proposed solicited projects during the meeting of the Committee of Arab Industrial Research Institutes Association of AIDMO that was held in Kuwait in November 2013.

ETC Executive Director, Dr. Fouad Mrad lectured at Al Omareyah School on "How to start a project" to promote innovation thinking among students on 20 November, 2013, at Al Omareyah theater in Amman- Jordan.



Selected Stakeholders Testimony on a few ETC Activities during second half 2013:

Regional Workshop on "National Innovation System: Input, Output, and Impact" 25-26 November 2013, Amman, Jordan

Mr. Hasan H. Omar, Executive Director Palestine ICT Incubator (PICTI), Palestine BIC
"Again, thank you for the great workshop which opened our eyes to many important things.

Palestine is now on the right track :) believe it or not the workshop is one of the reasons. We are preparing to start our national systems and strategies, you'll be involved and I'll keep you updated. Your support is highly appreciated."

ESCWA mapping of the Technology Parks, Accelerators, Incubators, VC Funds, and Portfolio Companies in the MENA region

Ms. Paola Ravacchioli, Investment Officer Equity & Microfinance Division Directorate for Operations outside the EU, European Investment Bank.

"During the Regional Workshop on Governance and Management of Science and Technology Parks in MENA Region, held in Casablanca last November. One of the highlights of the Conference was the presentation of the ESCWA mapping of the Technology Parks, Accelerators, Incubators, VC Funds, and Portfolio Companies in the MENA region. A thousand thanks for sharing the actual database of this mapping with us. This mapping will be used by the European Investment Bank as a base on which to build a business case for the implementation of a regional instrument to support MENA seed accelerators."

Looking Forward

Looking Forward

ETC will organize the 3rd Board of Governors Meeting during the first quarter of 2014 in Amman Jordan.

ETC Work Plan for 2014:

Technical Services

1. Research Universities Tech Transfer Policies and Structure
2. National Tech Transfer system establishment
3. Selective promising incubators business facilitation
4. Facilitate engagement of local and international stakeholders in the incubation eco system of the region
5. Selective reverse engineering and/or Intellectual venture sessions
6. Channeling capacity in local/regional R&D centers to Industrial competitiveness
7. Implementation mechanisms towards regional industrial partnerships
8. Industrial Development skills matching with Arab scientific and business diaspora engagement

Technical Materials

1. Legislative Directives to Enhance Private Sector Engagement in R&D activities
2. (Five Studies) Identification and facilitation of promising and critical technologies in meeting sustainability challenges of the region.

Advisory Services based on requests: Areas

1. Enhance innovation support tools
2. Industry Engagement in R&D activities

Training Courses, Seminars and Workshops

1. Entrepreneurship skills for Researchers and Engineers
2. Technologies for efficient power generation and transmission
3. Medical wastes technologies
4. Technologies for water network management and control
5. Technologies for agricultural productivity, Fertilizers production and efficient deployment
6. Review of Needs Assessment for the use of ICTs in accelerating socio-economic development.
7. Nano Tech Challenges: Nano Materials Synthesis, Fabrication and Application
8. Technology Management: RDI role in industry through best practices