



INFORMATION FOR DEVELOPMENT PROGRAM

Promoting Innovation and Entrepreneurship in Middle East & North Africa: Strategies and Partnerships

Casablanca, Morocco
January 31 – February 3, 2006

Workshop Report

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1 INTRODUCTION

The first Forum on Promoting Innovation and Entrepreneurship in the Middle East and North Africa: Strategies and Partnerships was held in Casablanca on January 31 – February 3 2006, hosted by the Casablanca Technopark. The forum was sponsored by the *infoDev* program, a special initiative in information and communication technologies (ICT) supported financially by various donors and managed by the World Bank.

The forum was conceived to explore the challenges faced by innovative entrepreneurs in the Middle East and North Africa (MENA) region. To this end the workshop brought together more than 100 representatives of the private and public sector and of the donor community. These included representatives of business incubators, ICT and ICT-enabled small and medium size enterprises (SME), financial institutions, policy-makers and donor agencies. Participants discussed the opportunities and challenges for promoting innovation and entrepreneurship in the MENA region and shared experiences on how to overcome some of the fundamental constraints faced by entrepreneurs in the region, such as access to growth financing and a challenging business environment.

The forum was opened by welcoming remarks from the host institution and the *infoDev* program and by a key note address from the World Bank that set the stage for subsequent activities. The core of forum's activities were structured along **four tracks**, gathering the views of both the private and public sectors on a series of topics. The first three tracks focused on different aspects of the relationship between innovation and entrepreneurship in the MENA region, dealing with issues such as the scaling up of existing SMEs, the role of the public sector, and the need for private public partnerships. The fourth track concentrated on issues of interest to managers of business incubators, with a view of fostering their professional development, enhancing the sustainability of existing initiatives, and developing networking across the region. Each track included two or more sessions dealing with specific topics and characterized by a high degree of interactivity, with formal presentations from guest speakers followed by open debate. A final session summarized the key issues raised and opportunities for collaboration identified during the previous session, providing practical indications on the way forward. The program of the forum is summarized in Box 1 below.

Box 1 – Program of the Forum

Opening and Keynote Addresses

Track 1: Innovation and Entrepreneurship in MENA: Challenges and Strategies

- Session I - Scaling-Up of SME - Regional Perspectives from the Private Sector, Industry Players and Professional Associations
- Session II – Financing of SME – Existing Gaps and Available Instruments
- Session III – Status of Development of *infoDev* Supported projects

Track 2: Innovation and Entrepreneurship in MENA: The Role of the Public Sector

- Session IV - Policy Framework for Innovation and Entrepreneurship Support
- Session V - Institutional Partnerships for Innovation

Track 3: Innovation and Entrepreneurship in MENA: Strategies and Partnerships

- Session VI - Policy Framework for Innovation and Entrepreneurship Support - A Donor's perspective
- Session VII - Mapping Innovation and Private Sector Development

Track 4: Professional Development for Business Incubators and ICT and ICT-enabled SME

- Session VIII - Managing an Incubation Program – ICT and Outreach; Awareness; Cross border collaboration; IPR

- Session IX - Incubation Management: Sustainability Plans, and Monitoring Evaluation and Impact Assessment Instruments
- Session X - Network Development & Network Management

Conclusions

- Session XI - MENA Regional Network – Next Steps and Action Plan

This report provides an overview of the main themes discussed during the forum. The report includes seven sections, broadly following the format of the forum. In particular:

- Section 2 provides an overview of the themes discussed in opening and key note addresses;
- Sections 3 through 6 deals with the issues debated in the four tracks;
- Section 7 summarizes the main conclusions and the agenda for future actions.

Some aspects of special relevance are analyzed in dedicated boxes.

2 OPENING AND KEYNOTE ADDRESSES

The opening address was delivered by Mr. Abderrafie Hanouf, General Manager of the Casablanca Technopark. Mr. Hanouf stressed the importance of the themes to be discussed during the forum, whose results are expected to have a direct impact on the operations of business incubators as well as on the nature of the cooperation between business incubators and other key players in the private and public sectors. Mr. Hanouf also expressed his satisfaction for the presence of a large number of participants, coming from most countries in the MENA region, and expressed the wish that this will enhance the chances of effective networking both during and after the forum.

The keynote address was delivered by Mr. Theodore Ahlers, World Bank MENA Regional Director. In his speech Mr. Ahlers depicted the broad development scenario in the region, recalling the main challenges faced by the MENA countries. At the center of these challenges is the need to increase the opportunities for the employment of an increasingly large and young labor force. The development of innovative activities, and notably of ICT and ICT-enabled activities, represents an important step in the right direction, as it provides an important source for direct and indirect growth. Further, the development of new technologies is an important element in the leveling of the playing field and in enhancing equal opportunities, both for economic agents and for the civil society.

3 TRACK #1: INNOVATION AND ENTREPRENEURSHIP IN MENA: CHALLENGES AND STRATEGIES

3.1 Introduction

This first track highlighted lessons from industry players, financial entities, sector associations and organizations providing incubation, innovation and entrepreneurship services that are geared towards ensuring the growth of SME and their participation in economic activities. The track included three sessions, the first dealing with the scaling up of small scale operations, the second tackling the thorny issue of facilitating access to finance, and the third illustrating the status of *infoDev* supported projects and other notable business incubation initiatives

3.2 Session I - Scaling-Up of SME - Regional Perspectives from the Private Sector, Industry Players and Professional Associations

This session was devoted to the theme of the scaling up operations of existing SME in the ICT and ICT-enabled sectors. The theme was analyzed in detail by a broad array of private sector players, who contributed their views from a national and regional perspective. The session was moderated by Mr. Saâd Bendidi, CEO of ONA, a leading diversified private group in Morocco, and saw the participation of five speakers, namely:

- Mr. Ashish Patel, from Intel Capital, head of investment operations in Europe, Middle East and North Africa;
- Mr. Thierry Albrand, from Alcatel, France;
- Mr. Hervé Servy, from Microsoft, responsible for the MENA region;
- Mr. Juan Ramón Alegret, from Sun Microsystems, USA;
- Mr. Jamal Benhamou, Director of APEBI, Morocco's association of ICT firms.

The main themes discussed and issues raised during the session can be summarized as follows:

- as pointed out by the moderator and all speakers, the issue of **scaling up** is intrinsically intertwined with the overriding objective of **increasing employment** in the region, which in turn requires the emergence of companies capable of competing not only at the national level but also in the broader regional and world arena. At the same time, expansion plans must be realistic and sound, and provide for a reasonable remuneration of the capital invested;
- among the challenges to be faced in promoting the scaling up, **access to markets** is an obvious precondition. But this must be accompanied by an adequate **strengthening of operational and managerial capabilities**. Indeed, the experience of leading investors in the ICT sector such as Intel Capital (with some 1,000 investments, totaling over US\$ 1 billion), shows that all too often projects fail because of the inability of their sponsors to adapt to the new scale of operations;
- in the ICT industry growth requires a continuous **effort in R&D**, and in fact even a giant such as Microsoft is still devoting 17% of its turnover to R&D. In turn, this raises the issue of intellectual property rights protection. In the case of open access technologies, such as those developed by Sun Microsystems, the challenge appears to be **content development**, an activity that remains relatively undeveloped in MENA countries;
- **large corporations** can play a significant role in supporting the emergence and growth of SME. An example in this respect is provided by the Alcatel's Digital Bridge initiative, launched in 2001. In the MENA region the Digital Bridge initiative has involved the establishment of two partnership centers (*Espaces Partenariat*) in Tunisia and Egypt, providing support to individuals and emerging firms in the development of ICT solutions and products in line with local conditions¹;
- extremely relevant is also the role played by **sector associations**, which can be instrumental in favoring the emergence of a more conducive environment for the scaling up of SME, notably by establishing an effective interface with government authorities. In this respect, the package of measures currently being negotiated by the APEBI with the Moroccan government (reduction of social charges, tax rebates related to R&D activities, etc.) can be regarded as a good example of a comprehensive development program for the ICT industry.

3.3 Session II – Financing of SME – Existing Gaps and Available Instruments

This session was aimed at providing answers to a set of questions regarding the often difficult relationship between SME and providers of funds. What financing gaps exist? What financial mechanisms are used to foster growth of SMEs? Can good practices and lessons be drawn from experience? How can incubators help identify and leverage financial resources for their clients? These

¹ The experience of the Tunisian partnership center was illustrated in some detail during Session IX. See below.

are some of the questions that were debated during the session. The session was moderated by Mr. Roberto Zavatta, managing director of Economisti Associati, an Italian consulting firm specializing in SME financing, and saw the participation of six speakers, namely:

- Mr. Matthew Pedley, MINAH Ventures, USA
- Mr. Mohamed Bouatou, Fonds Sindibad, Morocco
- Mr. Ahmad Gomaa, Ideavelopers, Egypt
- Mr. Jean-Marc Liger, PROPARCO, Morocco
- Mr. Jawad Abbassi, Arab Advisors, Jordan
- Ms. Isabelle Portebois, CFG Group Capital Risque, Morocco

The main themes discussed and findings emerged can be summarized as follows:

- a broad consensus emerged regarding the ***persistence of a financing gap*** faced by SME active in ICT as well as in other innovative sectors. Indeed, while some innovative companies have been able to grow and prosper counting only on their self financing capabilities (it is the case of Arab Advisors), the preliminary results of an *infoDev* study on Morocco carried out by Economisti Associati as well as elements related to other MENA countries clearly suggest the persistence of a significant gap, namely for investment project in the US\$ 100,000 – 2,000,000 range;
- The presence of ***seed capital financing facilities***, specifically targeted at newly established ICT firms, is still limited in the MENA region. An example is provided by Morocco's Fonds Sindibad, whose experience is in the process of being replicated by another fund aimed at small scale investments of less than US\$ 400,000. Egypt's Ideavelopers is also active in this market segment, sometimes making investments as small as US\$ 200,000 and providing extensive hands on assistance to investee companies, in the fields of marketing, administration, and HR development;
- the involvement of “standard” ***venture capital funds*** in early stage investments is hindered by structural factors. Indeed, the presence of sizeable “transactions costs” (related to the appraisal of projects, the carrying out of the due diligence and, especially, the provision of assistance in the post investment phase) reduces the financial attractiveness of smaller investments. This point, clearly made in the presentation from CFG Group, suggests the opportunity of devising donor-supported schemes that could relief part of these transaction costs. This point is further illustrated in Box 2 below;
- despite the above limitations and constraints, the ***interest of equity investors*** in the ICT industry in the MENA region remains significant. As pointed out by the representative of MINAH Ventures, investor interest is also fueled by the presence of a pool of talents originating from the region but with experience in Silicon Valley and other ICT high growth areas, who can help in linking up the MENA's ICT sector with key players. Indeed, mobilizing the right blend of international expertise, capital, and familiarity with local conditions appears as a crucially important challenge;
- against this background, ***donor organizations***, such as France's PROPARCO, can play, and historically have played, a crucially important role in facilitating SME access to finance. This includes the participation in the capitalization of equity financing operations (be they of a generalist nature or specifically targeted at the ICT sector) as well as the funding or management of credit guarantee schemes, that can assist small entrepreneurs in dealing with a still overly conservative banking sector.

Box 2 - Motivating Venture Capitalists' Interest in Small Scale Investments

Equity financing schemes operating in MENA countries have not neglected the ICT industry. In Morocco alone, no less than a dozen deals (out of a total of some 60 equity financing operations) have been made with ICT companies. However, these deals have typically benefited companies in their second and third expansion phases, with individual investments often in excess of US\$ 1.5 million. The finalization of smaller deals is regarded as scarcely feasible, because of the significant transaction costs, which can be easily exceed US\$ 50,000 per deal (i.e. 10% or more of a US\$ 500,000 investment). The size of transaction costs varies across MENA countries and the problem appears comparatively less severe in low cost countries, such as Egypt, where developers is able to make investments in the order of US\$ 200,000. However, it is clear that only a significant reduction transaction costs could adequately motivate venture capitalist to consider smaller investments. In turn, this opens the door for some donor interventions, along models already adopted in the past by some IFI and bilateral donors (e.g. EBRD, USAID), that supported the provision of equity financing to SME through the allocation of grant money to cover for venture capital funds' operating expenses and due diligence costs.

3.4 Session III – Status of Development of *infoDev* Supported projects

What are the goals of the incubator and its achievements? How are the policy and financial challenges addressed? Who are the partners of the incubator and how is cooperation organized? How does the incubator support innovation? What is the role of ICT in achieving the goals and delivering services for clients? What are the incubator's business models and sources of revenue for long term sustainability? What lessons have been learnt? These are some the questions that were addressed during Session III. The session was moderated by Mr. Vivek Chaudhry, Program Administrator with the *infoDev* program, and saw the participation of five speakers, namely:

- Mr. Fayçal Fassi-Fihri, Director of the Incubator at the Casablanca Technopark, Morocco
- Mr. Khaled Elshuraydeh, from the Higher Council for Science and Business Incubators, Jordan
- Mr. Mostafa Karimian Eghbal, from the Isfahan Science and Technology Town, Iran
- Mr. Omar Al-Sahili, from the Palestine Information & Communication technology Incubator (PICTI), Palestine
- Mr. Omer Oz, from the Bahrain Business Incubator Center, Bahrain.

The session involved a detailed presentation of the experience of the various incubators. The presentations highlighted the ***extreme diversity of conditions*** in which MENA business incubators operate, which in turn leads to the adoption of widely different operating modalities. The ensuing discussion focused on the perceived lack of a “common minimum denominator” for business incubation activities, which may hamper the transmission of experience and the adaptation of lessons learned. However, it was generally recognized that, while the quest for a generally applicable model of business incubation is understandable, it is unrealistic to expect such a model to emerge under current conditions.

4 TRACK #2: INNOVATION AND ENTREPRENEURSHIP IN MENA: THE ROLE OF THE PUBLIC SECTOR

4.1 Introduction

This second track focused on policy initiatives that governments have introduced or could introduce to enhance innovation, entrepreneurship and SME development. Particular attention was given to initiatives that improve: (i) marketing and other business development services; (ii) the regulatory and legal and regulatory environment, including the key issues of intellectual property rights and of access to public procurement; and (iii) ICT infrastructure and services access. The track included two sessions, devoted to an overview of the policy framework for innovation and entrepreneurship support in various MENA countries and to the analysis of institutional partnerships for innovation.

4.2 Session IV - Policy Framework for Innovation and Entrepreneurship Support

This session was devoted to a review of policy measures adopted by MENA governments to foster innovation, incubation and entrepreneurship. The focus was on providing answers to crucially important questions such as: what policies have been most effective? What lessons have been learned from a policy perspective? How does government regulation facilitate or impede business development? What are the policy challenges? Are there any common road maps applicable across the region or adaptable from one country to another? How is ICT used to support innovation? The session was moderated by Ms. Samia Melhem, Senior Operations Officer with the *infoDev* program, and saw the participation of four speakers, namely:

- Dr. Abdelkader Djeflat, from the Université de Lille and coordinator of the MAGHTECH network, Algeria;
- Dr. Raymond Khoury, from the Office of the Minister of State for Administrative Reform (OMSAR), Lebanon;
- Mr. Ahmad Sindi, from the Communications & Information Technology Commission, Saudi Arabia;
- Mr. Rifaat Mohamed Rifaat, from the Information Technology Industry Development Agency (ITIDA), Egypt.

At the beginning of the session, the *infoDev* moderator took the opportunity to review the elements discussed during the previous day, paying special attention to aspects related to the different financing tools available in the region as well as to the impact of cultural factors in the promotion and fostering of entrepreneurship. The subsequent discussion focused on key aspects of public policy in MENA countries. In particular:

- **liberalization** and **infrastructure development** are widely regarded necessary pre conditions for the development of a lively ICT industry. The situation differs across the region, but progress is noticeable in many countries. For instance, in Saudi Arabia the ISP market is now fully liberalized, and some 30 ISP are currently in operations. In Algeria, the state-owned telecom company still dominates the market, but its corporatization has introduced a new impetus to improve services. In Lebanon, the combined effect of liberalization of infrastructure development has led to a reduction in dial-up and direct line costs and further progress is expected to take place during 2006;
- progress in fundamentals need to be accompanied by **pro active measures on the demand side**, promoting wider use of ICT by households and enterprises. An example of government measures in this field is provided by the Saudi Home Computing Initiative, offering a “bundle” of PC, software, internet access and training at discounted prices, with some 10,000 PC sold in three months. Along similar lines, Egypt’s ICT4SMEs is actively supporting the adoption of ICT technologies by the small enterprise sector, through a cost sharing scheme (80% government, 20% SME). Further impetus will be derived by the E-government initiatives adopted or in the process of

being launched in the various countries, and often involving significant investments (estimated at US\$ 5 billion in Saudi Arabia alone);

- further progress requires a **high degree of coordination** among the various levels of public policy. In institutional terms this is symbolized by the emergence of government bodies combining regulatory responsibilities with promotional functions. An example is provided by Egypt's ITIDA, whose responsibilities range from IPR protection to the implementation of e-signature regulations to the active promotion of the ICT sector, especially with a view of enhancing its export potential. As pointed out in the presentation from MAGHTECH network, the need for close integration also has implication for business incubators, whose establishment is often mistakenly perceived as an end *per se*, rather than as an integral part of innovation and entrepreneurship development policies.

4.3 Session V - Institutional Partnerships for Innovation

This session was largely devoted to the analysis of institutional mechanisms that can help foster entrepreneurship, with a special attention to the establishment of collaborative agreements between educational institutions, business incubators and the private sectors. How can the educational system unleash creativity and innovation potentials? What tools are used to help develop entrepreneurship and SMEs? How can incubators reach potential candidates? How can incubators attract quality projects? Are some of the questions that were addressed during the presentations and the ensuing debate. The session was moderated by Professor Mohamed Barkaoui, Dean of the Hassan II University Casablanca, Morocco and saw the participation of the following four speakers:

- Prof. Amjad Al-Fahoum, from the Academic Center of Excellence, at Yarmouk University, Jordan;
- Prof. Laeed Zaghلامي, from the Université d'Alger, Algeria;
- Mr. Ahmed Bouzidi, from the Fédération des PME PMI, Morocco;
- Mr. Monder Ben Ayed, CEO of Tunisie Micro Informatique (TMI), Tunisia

The themes discussed and the findings emerged can be summarized as follows:

- there is a broad consensus on the **role played by cultural factors** in the broadest senses in fostering or hampering entrepreneurship and innovation. In contexts where the prevailing culture is not in favor of risk taking and profit seeking behavior, which appears to be frequently the case in MENA countries (the "l'argent ne fait pas le bonheur" syndrome), education has a major role to play. Indeed, a closer linkage between educational institutions and structures explicitly devoted to the promotion of entrepreneurship would be a welcome development, and would represent a major step forward in forging the institutional partnerships required to support innovation and entrepreneurship;
- the **importance of basic infrastructure** was once more highlighted, with special reference to the telecom sector in Algeria. Indeed, as pointed thanks to the recent improvements in the range and level of service provided, will have greater opportunities to undertake their product development and expansion plans;
- the **role of value added services** in fostering innovation was also highlighted. In particular, referring to earlier discussion on the "ideal" business model for business incubation activities (see above, Session III), Prof. Amjad Al-Fahoum clearly made the case for the provision of highly specialized, sector specific services, in addition to the provision of more standard activities, such as training, awareness raising events and the like;
- a word of caution came from Mr. Monder Ben Ayed, who warned that "incubation risks being a futile exercise" **if suitable market conditions are not present**. Indeed, the availability of market opportunities and access is regarded as one of the four conditions for an effective development of the knowledge economy, together with the availability of infrastructure, the existence of an appropriate legal framework and the availability of adequate human resources. As for the latter, it is however important to attune the production of new professional profiles as well as the overall

output of graduates to a realistic assessment of prevailing conditions, in order to avoid a waste of resources and, most importantly, the frustration of expectations (“in Tunisia we produce 5,000 engineers per year, when there is a market for only 500 or so”).

5 TRACK #3: INNOVATION AND ENTREPRENEURSHIP IN MENA: STRATEGIES AND PARTNERSHIPS

5.1 Introduction

This track built on the elements discussed in Tracks #1 and #2, further adding a strategic perspective on the inter institutional partnerships required to address the constraints to innovation and entrepreneurship in MENA. The track included one substantive session, devoted to the illustration of donors’ attitudes and concrete measures in support of ICT and incubation, as well as an “open discussion” session during which the issues emerged in previous sessions were broadly debated.

5.2 Session VI - Policy Framework for Innovation and Entrepreneurship Support in Middle East/ North Africa - a Donor’s Perspective

The session was focused on donors’ activities to support innovation, incubation and entrepreneurship in the MENA region. This involved a review of specific interventions targeted at the ICT sector as well as a review of broad based programs aimed at promoting a more a favourable institutional and policy environment. The session was moderated by Ms. Joan E. Hubbard, Advisor for Policy and Strategy at the *infoDev* program, and saw the participation of three speakers, namely:

- Mr. Jamal Dadi, from the USAID mission in Morocco;
- Ms. Samia Melhem, Senior Operations Officer with the *infoDev* program,
- Mr. Ulrich Hoecker, Advisor for Private Sector Development for GTZ, Germany.

The three presentations largely echoed some of the crucial issues emerged during previous sessions, clearly indicating a high degree of convergence. In particular:

- technical assistance aimed at ***creating efficient institutions and establishing a well functioning legal system*** is a central theme in donors’ agendas. This is symbolized by USAID activities to strengthen telecom regulatory bodies (as in the case of Morocco’s ANRT) and by *infoDev* initiatives in support of the adoption of appropriate regulatory policies;
- improving access to markets, fostering the acquisition of IT skills by the youth and promoting e-government are ***other pillars of donor financed programs***. An example in this respect is provided by the USAID program in Morocco, with its three pronged approach including: (i) the New Business Opportunities initiative, that is seeking to facilitate access to the US market, the ALEF (Advancing Learning and Employability for a Better Future) program, which supports the development of ICT training packages for Moroccan schools, and (iii) the various e-government initiatives in support of central and local authorities;
- the presentations, as well as the ensuing discussion also stressed the importance for donors to carefully review the results of previous programs in support to innovation and to ***incorporate the lessons learned in future initiatives***. In this context, the importance of a systemic approach, the need for incorporating the social dimensions of innovation, and the crucial impact of governance arrangements on projects was highlighted by the GTZ representative.

5.3 Session VII – Open Discussion

This session was largely devoted to an overall discussion of the themes and issues identified in previous Sessions, giving an opportunity to participants to further elaborate on the various issues and/or to present their own experiences. In this context, the attention was largely focused on two main themes, namely: (i) access to finance, and (ii) market access.

Regarding *access to finance*, the attention was focused on the excessively cautious attitude displayed by developing countries' financial institutions (and especially by commercial banks) towards ICT small businesses. To a significant extent, this attitude appears due to structural and fundamental cultural factors (the “lack of collateral” argument), but a sheer lack of understanding of what an ICT firm is was also pointed out by some participants. In this context, the representative of APEBI, Morocco's ICT sector association, illustrated an initiative currently under development to tackle the problem. This would involve the establishment of a database of financial data on ICT firms, so as to allow commercial banks to gain a better understanding of basic financial parameters in the sector and, in case, to have a useful source to benchmark the financial performance of individual firms applying for loans.

As for the *market access* theme, the issue of rules for government procurement in the ICT sector was mentioned. As mentioned by several participants, all too often MENA authorities display a bias in favor of large, foreign suppliers, thereby frustrating the hopes of local enterprises. Even when procurement is open to local ICT companies, the payment conditions are typically such (in Tunisia payment for ICT equipment and software is at 120 days, “fin de mois”), that SME have serious difficulties in mobilizing the necessary working capital. In turn, this issue brings back to the problem of relatively undeveloped financial systems, as in many MENA countries factoring remains largely inexistent and/or involves excessively high interests.

6 TRACK #4: PROFESSIONAL DEVELOPMENT FOR BUSINESS INCUBATORS AND ICT AND ICT-ENABLED SME

6.1 Introduction

This fourth track was intended to provide an opportunity for the discussion of themes related to the professional development of practitioners concretely involved in business incubation, innovation and entrepreneurship development. It addressed issues related to the skills, tools and approaches used in three main “areas of interest”, namely: (i) incubation management and tenant company development, (ii) management of networks of investors and tenant companies, and (iii) monitoring, evaluation and impact assessment. The track included three sessions, each dealing with one of the above “areas of interest”.

6.2 Session VIII - Managing an Incubation Program – ICT and Outreach; Awareness; Cross Border Collaboration; IPR

An important part of business incubation programs is to reach clients outside the incubator itself, to widen the scope for innovation and entrepreneurship. Hence, this session reviewed the experience of various incubators and entrepreneurship promotion programs, in order to highlight the challenges faced and the lessons learned on the interaction between ICT and outreach, e.g. distance training, e-learning, and business information systems. The session was moderated Christian Rey, Director of Marseille Innovation, France and saw the participation of five speakers, namely:

- Prof. Omar Hamarneh, The Higher Council for Science and Business Incubators, Jordan;
- Prof. Habibolah Asghari, Rooyesh ICT Incubator, Iran;

- Mr. Khaled Elloumi, INSAT, Tunisia;
- Mr. Ali Lahlou, ISN, Morocco;
- Ms. Sheila Robinson, consultant, United Kingdom;
- Mr. Rafaat El Fouly, MCIT, Egypt.

6.3 Session IX - Incubation Management: Sustainability Plans, and Monitoring Evaluation and Impact Assessment Instruments

The session was devoted to the analysis of factors that impact on the effectiveness, impact and sustainability of business incubators and of other entrepreneurship enhancing programs. The session was moderated by Mr. Jose Lopez-Calix, Country Director for Morocco at the World Bank, and saw the participation of six speakers, namely:

- Mr. Ezzatollah Roustazadeh, from the Isfahan University of Technology, Iran;
- Mr. Mourad Lahmadi, from the Alcatel Incubator, Tunisia;
- Mr. Aicha Ennaifar, Pôle El Ghazala des Technologies de la Communication, Tunisia
- Prof. H. Sharafuddine, dean of the Sanaa University, Yemen;
- Mr. Julian Webb, from CREEDA, Australia;
- Mr. Eri Vazquez, senior consultant with META Group, Spain.

The discussion was preceded by a presentation from Mr. Lopez-Calix who illustrated the features of the **Knowledge Assessment Methodology** (KAM), recently elaborated by the World Bank. The KAM allows for the calculation of two indexes, the Knowledge Economy Index and the Knowledge Index, that are summary measures resulting from the calculation of some 80 basic indicators related to the economic system, education system and the availability of human resources, the innovation system, and the ICT sector². These indexes allow to track the progress at the country level, thereby becoming a useful tool for benchmarking and evaluation exercises. Another presentation with a methodological intonation was that of Mr. Roustazadeh, who presented a synthetic reference framework for the evaluation of business incubator operations. Starting from the definition of business incubators as an “entrepreneurial ... business responsive to its environment”, the methodology incorporates a **four level evaluation process** (evaluation of incubatees and their progress, evaluation of services provided and incubatees’ satisfaction, evaluation of incubator manager/management system, and profitability), that allows for the early detection of problems and the identification of possible corrective measures (re-engineering/introduction of new services, revision of admission criteria, etc.).

Other presentations focussed on the illustration of specific cases, allowing for the identification of important lessons. A general agreement emerged regarding the fact that **sustainability should be built in the early stages**, ideally since the very conception of a business incubator. The case was vividly illustrated by the presentation of Mr. Vazquez (META Group Spain), who pointed out that, due to recent budgetary restriction, even in more developed environments great attention is devoted to the identification of measures susceptible of enhancing the financial sustainability of business incubators. These range from the adoption of the effective least cost architectural solutions for the design of buildings to the extensive recourse to outsourcing for ancillary functions to the adoption of imaginative approaches in identifying sources of income (e.g. sponsorship programs).

² The methodology is described in detail in <http://web.worldbank.org/website/external/wbi/wbiprograms/kfdlp/extunikam/>

6.4 Session X - Network Development & Network Management

This session was devoted to an overview of concrete network building initiatives and experience as well as describing the different types of networks and strategies for network building and requirements and tools for network management. The session was moderated by Ms. Samia Melhem, Senior Operations Officer with the *infoDev* program and saw the participation of the following five speakers:

- Mr. Laith Kassis, from PITA, Palestine;
- Dr. Raymond Khoury, from the Office of the Minister of State for Administrative Reform (OMSAR), Lebanon;
- Mr. Heinz Fiedler, SPICE GROUP
- Julian Webb from CREEDA, Australia;
- Christian Rey, Director of Marseille Innovation, France.

The session was opened with the presentation of a ***model for the establishment of a MENA network*** of business incubators, whose development had been entrusted to Dr. Khoury during the Conference. Dr. Khoury's presentation offered a general reference framework for the proposed network (mission, vision, stakeholders, membership, etc.) and formulated a series of proposals for the creation of the MENA^{INC} network. Useful indications about the structure and functioning of the proposed network were also derived from the experience of the Medinnov Network presented by Mr. Rey, as well as from the experience of other session participants. The ensuing discussion focused on the key conditions for the establishment and operations of an effective MENA^{INC} network, including:

- the need to agree on a ***common incubation process taxonomy***, in order to effectively structure the information and knowledge base;
- the establishment of a number of ***"communities of practice"*** within the network;
- the compilation of public information, data and studies of relevance to the incubation process, for each country associated to the network, so as to provide an ***initial content for the network portal***;
- the delineation of the ***MENA^{INC} portal salient features***, and the identification of ***financial sources*** of its creation and development;
- the definition of the ***governance structure*** of the future MENA^{INC} network, and its possible ***linkages with the infoDev program***.