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**Economic and Social Commission for Western Asia (ESCWA)**

## **REPORT**

### **FINAL MEETING OF THE PROJECT ON “PROMOTION OF THE DIGITAL ARABIC CONTENT INDUSTRY THROUGH INCUBATION” BEIRUT, 14-15 DECEMBER 2009**

#### **Summary**

The final meeting of the project on “Promotion of the Digital Arabic Content Industry through Incubation” was held at the United Nations House, in Beirut, 14-15 December 2009 launched in 2007 by the Economic and Social Commission for Western Asia (ESCWA). The two-day meeting sought to review the project’s major achievements and to issue recommendations on the Digital Arabic Content (DAC) industry and on the project’s current and future phases, including widening its reach to encompass a greater number of countries in the ESCWA region. The most significant recommendation of the meeting was for the project to be replicated through competitions throughout the region.

The meeting also provided a platform for sharing experiences and best practices, and for discussing challenges and obstacles facing the DAC industry in the region, in particular, launching DAC start-ups. The meeting reviewed project activities implemented by ESCWA, including a summary of the three studies the Commission conducted covering technical issues, marketing strategies, and the DAC industry’s incubation requirements. Representatives of the partner incubators reviewed their project-related activities in the five participating countries, namely Jordan, Lebanon, Palestine, the Syrian Arab Republic and Yemen. Members of the ESCWA competition’s winning teams presented their incubated projects, outlining the progress of their applications and highlights of the incubation process, as well as future requirements for furthering their applications and promoting start-ups.

The meeting was attended by 14 participants, including the managers of the partner technology incubators, representatives of the winning teams that were incubated for one year, and a number of DAC experts.

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## **Introduction**

1. There are many Digital Arabic Content (DAC) investment opportunities in the Arab world despite the challenges facing the industry's progress. Given the presence of more than three hundred million Arabic speakers in the region and the substantial number of Arab expatriates throughout the world (diaspora), the industry's opportunities are considerable.
2. The Information and Communication Technology Division (ICTD) of the Economic and Social Commission for Western Asia (ESCWA) launched its project entitled "Promotion of the Digital Arabic Content Industry through Incubation" in 2007 to stimulate the DAC industry in Western Asia. The project aimed to promote the development of DAC in the region by fostering and promoting DAC applications in technology incubators. Involving several phases of activity, the project started out by conducting three studies: a survey of the current state of DAC, including software tools, applications and needs assessment; a review of business planning, marketing and partnership models appropriate to the DAC industry; and a study regarding the incubation requirements for DAC development in terms of software, hardware and training. The studies completed, ESCWA convened a meeting of experts on 29-30 April 2008 to discuss the promotion of the DAC industry in the ESCWA region. In addition to reviewing the aforementioned studies, the meeting participants discussed how best to collaborate with established technology incubators in the region to hold national competitions and evaluate participating DAC applications. Awareness campaigns were launched in Jordan, Lebanon, Palestine, the Syrian Arab Republic and Yemen to encourage young and would-be entrepreneurs to participate in these competitions; they, in turn, submitted DAC applications for incubation with technology incubators in their respective countries. The winning team from each country was awarded a one-year incubation period with a major incubator with the support of ESCWA.
3. Two years after this project was launched, ICTD held its final meeting on the project on 14-15 December 2009, at the United Nations House in Beirut. With the input of an expert specifically hired for the purpose, ESCWA's collaboration with its incubator partners was evaluated, and the achievements of the incubated projects reviewed. In addition to assessing this major collaboration, the meeting was also able to review different aspects of the project, including knowledge transfer, lessons learned, and implementation difficulties as well as the impact of cooperation between ESCWA and the incubators. The perspective of each of the incubators and the accomplishments of the nine incubated projects were also discussed. The salient points of the meeting were designated as strategic steps for future progress, and two sets of recommendations were issued, one addressed to ESCWA, and the other to the incubators and their incubatees.
4. The meeting was attended by 14 participants from upper management in the following partner technology incubators: Berytech Technology and Health Incubator (Lebanon); the Palestine Information and Communications Technology Incubator (PCTI, Palestine); the Jordan Innovation Centre (JIC), a technological business incubator at Philadelphia University (Jordan); the Information and Communication Technology Incubator in the Syrian Computer Society (Syrian Arab Republic); and the Aden Information and Communication Technology Incubator (Yemen). Representatives of ESCWA's award-winning incubatee groups also attended the meeting, as well as a group of DAC experts.

## **I. RECOMMENDATIONS**

5. At the conclusion of the meeting, the participants issued the following recommendations:

### **A. PRACTICAL RECOMMENDATIONS SPECIFIC TO ESCWA PROJECT**

- (a) In light of its success in the five countries concerned by the project, to replicate the project by organizing another round of national DAC competitions and widen its scope by securing the participation of other Arab countries;

(b) To include new DAC application topics in future competitions, in light of the importance of these national competitions;

(c) Endorsement of the excellent methodology and standards used to implement the projects, and the transparency of the process followed by the national bodies responsible for organizing and implementing the competitions in their respective countries, which in some cases had to adapt their own methodologies and standards to those proposed by ESCWA;

(d) To investigate increasing the amount awarded to the incubated projects, and to broaden ESCWA's commitment to under-writing the work sustainability of the award-winning incubatee;

(e) To set aside time, prior to the actual start of incubation, to monitor the incubatee's involvement in the development of the awarded application on the understanding that this is part of the monitoring process;

(f) To clarify the relationship between ESCWA and its partner incubator on the one hand, and between the incubator and incubatee on the other, so that the roles, responsibilities and activities of each are clear, and the results expected from the one-year incubation process are spelled out;

(g) To amend the time frames involved in organizing and implementing the national competitions, including the awareness campaign, the evaluation and selection of participating projects, and the determination of the award-winners. Specifically, it is recommended that this time period be extended to six months;

(h) To separate the awareness campaign from the actual launch of the competition, and to allocate the necessary time and resources to each separately;

(i) To market the applications resulting from the incubation process nationally, and where appropriate regionally and/or internationally; to boost media coverage of the activities of ESCWA and its partners with respect to this project, in particular, and to the DAC industry, in general.

#### B. RECOMMENDATIONS RELATED TO THE DIGITAL ARABIC CONTENT INDUSTRY

(a) To foster interest in DAC, especially on the part of governments, so that countries of the region are fully aware of their responsibilities with respect to promoting the DAC industry;

(b) To strengthen DAC research and development (R & D) both nationally and regionally, resulting in the production of high-quality applications and software tools; and to involve both technology incubators and the private sector in the development of these products, thereby ensuring their marketing nationally, regionally, and internationally;

(c) To reach the widest possible number of consumers in the Arab world and abroad when marketing DAC products both regionally and internationally. This recommendation is made in light of the fact that local and national markets are too small to sustain the durability of these products;

(d) To consider the studies carried out under the framework of the ESCWA project, as DAC industry references and to publish and distribute them as widely as possible, especially to governments and universities in the region;

(e) To "Arabize" scientific, economic and development terms, and to promote their use in the Arab world in furthering the development of DAC;

(f) To impress upon governments and other institutions, both private and public, the importance of launching long-term national projects related to e- services and applications in Arabic language which would stimulate the establishment of small and medium-size enterprises dedicated to the development of DAC.

## II. TOPICS OF DISCUSSION

6. The meeting's topics of discussion can be summarized as follows:

(a) Presentation of ESCWA's Promotion of the Digital Arabic Content Industry through Incubation project and its outcomes, and summary review of the three studies conducted by ESCWA on the current state of DAC;

(b) Review of the five technology incubators' experiences in their collaboration on this project with ESCWA, including challenges, lessons learned and recommendations;

(c) Brief overview of the accomplishments and progress of the award-winning applications;

(d) Review of the project's evaluation and suggested recommendations for marketing of the resulting applications and the creation of start-ups based on these.

### A. PRESENTATION OF THE ESCWA PROJECT AND SUMMARY REVIEW OF THE RELATED STUDIES

7. Ms. Nibal Idlebi, project manager, presented the project on "Promotion of the Digital Arabic Content Industry through Incubation". The presentation focused on the need to develop DAC in order for the Arab region to contribute to the world digital content industry, and on the resulting significant increase in regional income and employment opportunities for the young. She stressed that the development of the DAC industry is critical, and Iceland and south-eastern England were given examples of success in the field. The main phases of the project were presented, notably the completion of a number of technical and marketing studies, the convening of the experts' meeting, and finally, the collaboration between ESCWA and technology incubators in the region. It was thanks to the latter that awareness campaigns were launched to publicize national DAC competitions and that winning DAC applications were selected and incubated for a one-year period with ESCWA funding. Ms. Idlebi also spoke about ESCWA's participation in a series of regional conferences promoting the project and raising the profile of DAC. It was underlined the fact that the proposal of the second phase of the project was selected within the list of Arab ICT projects to be presented to the Conference of Arab League Ministers of Communication. The project's following strengths were pointed out, including: raising awareness on the importance of DAC in the region; the existence of comprehensive studies on the subject and of measuring tools for evaluation; the development of a number of DAC applications and consequently the opportunity for small start-ups to be launched. It was also noted that the time-frame of some of the project's activities needed to be revised.

8. As ESCWA consultant, Ms. Nadia Hegazi gave a presentation summarizing the three studies conducted by ESCWA within the scope of this project. She emphasized that preserving the use of Arabic in digital content is especially important in view of the widespread use of the Latin alphabet by Arabic speakers on social networking sites. Ms. Hegazi noted that both software and hardware tools are needed to foster the use of Arabic in digital content, particularly in the realms of content acquisition and development, as well as in language processing, search, publishing and indexing tools. She said that given the vast amount of digital content currently available, data search tools are of utmost importance. Ms. Hegazi stated that there were vast opportunities for DAC whether in the fields of information, entertainment, trade or public services in both regional and international markets. She noted that technology incubators were the most reliable means to launch start-ups. She also emphasized the significant opportunities for digital content in mobile phone technology, and said she expected that the future of digital content lay in mobile applications, given the tremendous spread and user-friendly nature of mobile phone technology in all sectors of society.

## B. THE ROLE OF INCUBATORS AND ACHIEVEMENTS OF INCUBATED PROJECTS

9. The three sessions of the meeting focused on the implementation of ESCWA's project in collaboration with the five national partner incubators. Representatives of these incubators reviewed their activities pertaining to the facilitation of the work ensuing from their collaborative partnership with ESCWA. They addressed the challenges involved in implementing such a project in general, and the incubation process in particular, including the selection process of projects participated in the competition. After each incubator presentation, a member of the incubated project described the winning project, its development, the benefits and outcomes of the one-year incubation period.

10. Ms. Rima Shaaban, director of the Information and Communication Technology Incubator established by the Syrian Computer Society, informed participants about her organization's incubation of two winning teams, after an initial phase during which operational plans of incubatees were re-assessed. Ms. Shaaban reported on the work progress of incubatees, the observations of the incubator's oversight team and their overall performance. Ms. Alia Dreirish, from the incubated "Arabi" project, described the automatic text-speech engine that would convert written Arabic text into speech. She pointed out that this technology's applicability was expanding rapidly and enumerated potential areas for its use, such as audio-books and electronic readers. Mr. Khaled Moussa, a member of the second project housed by the Syrian incubator, followed with a presentation of [www.academia.sy](http://www.academia.sy), an interactive portal of educational services and media information for use in the Syrian Arab Republic's higher education sector.

11. From Lebanon, the director of Berytech, Mr. Nicola Rouhana, stressed on the role of incubators to support the winning project with information technology and marketing services. He described the incubator's structure and the services offered to incubatees; summing up lessons learned, he mentioned the need for more funding for the development of advanced gaming applications. He was followed by Mr. Hassan Ayoub, representing the incubated project "Alf Mile", a regional gaming application; he outlined the necessary requirements for the design and the development of gaming technologies, and described Alf Mile as an innovative educational interactive game set in the Arab world. He singled out the high cost of gaming software as the greatest challenge facing local development of games, and stressed the need for funding partners.

12. The representative of the Jordan Innovation Centre of Philadelphia University, Mr. Mohammad Ajour, cited the disparity between spoken and written Arabic as a major challenge facing the promotion of DAC. He said discreet DAC promotion initiatives were not sufficient and recommended the development of a long-term strategy, at both national and regional levels, to further that goal. Mr. Ajour also addressed the question of how to measure the impact of enhanced DAC on socio-economic development in the region. The Jordanian incubated project, the Arab Entrepreneur Website ([www.arapreneurs.com](http://www.arapreneurs.com)), was then presented by Mr. Maen Zaghoul who said that the goal of the project was to provide a networking platform offering Arab entrepreneurs investment opportunities and access to markets. Mr. Zaghoul alluded to the project's implementation phases, including the one currently in progress.

13. According to Mr. Hassan Omar, manager of the Palestine Information and Communications Technology Incubator (PCTI), the success of the DAC competition and awareness campaign was evidenced by the number of projects submitted to the incubator, with submissions continuing to come in after the competition was over. Mr. Omar highlighted the role of incubators in marketing IT products regionally as well as locally, and stressed the importance of supporting innovation educational methods at universities as well as DAC research and development. On behalf of the winning Palestinian entry, the Arabic Optical Character Recognition (OCR) system project, Mr. Abdel-Karim Kaabneh explained that it is a modular system that processes and receives images of typewritten Arabic text, thereby facilitating the recognition of Arabic text. The incubation process enabled the project to develop a business plan and to launch STARS (Software Technologies for Arabic Recognition Systems), an OCR software development start-up.

14. Mr. Yahya Al-Rewi, director of the Aden Information and Communication Technology Incubator, reported that despite his organization's very recent establishment (in 2008), Aden ICT Incubator was able to meet the challenge of implementing the ESCWA project in Yemen, where it launched the competition for DAC incubation applications and was responsible for other activities related to the project. He noted that competition participants found it difficult to properly complete the application process, attributing this to a relative lack of marketing, financial and general business skills and experience. Ms. Amal Mohsen presented the Aden Tourism Portal project, one of the winning entries incubated in Yemen. Ms. Mohsen focused on the project's need to secure both technological and data-gathering capacities. She indicated that tourism-related businesses and institutions in Aden had responded positively to the project's requests for more data with which to enrich the site. In addition, Ms. Mohsen reported briefly on behalf of another winning entry from Yemen, the Electronic Mediator project, an online platform for employment, project financing and marketing, and real estate services. Representing the e-Learning project, Mr. Walid Saleh said his project aimed to address the gaps in Yemen's higher education sector, especially in the areas of information and communications technology. The e-Learning project, he stated, aimed to offer a comprehensive array of services to the higher education institutions. He said the planning phase of the website was completed, and that the project would begin offering its services to the Faculty of Dentistry the following year.

### C. EVALUATION OF THE ESCWA PROJECT AND PRIZE DISTRIBUTION

15. The second day of the meeting was dedicated to the evaluation of the project on "Promotion the Digital Arabic Content Industry through Incubation". The evaluation was conducted by Mr. Gabriel Deek, contracted by ESCWA for the purpose. Mr. Deek began his presentation by reviewing the collaboration between ESCWA and the technology incubators in each country, and the support the project garnered from both the public and private sectors. He noted the commitment and enthusiasm of the collaborating partners (ESCWA and its chosen technology incubators) towards achieving the project's goals. He noted that the national competitions were both fair and transparent, and commended the high degree of expertise on the evaluating panels. Mr. Deek went on to point out that there needed to be greater clarity in the relationship between ESCWA and the incubators, on the one hand, and the incubatees, on the other, adding that a number of incubators had expressed the wish for ESCWA to be more involved during the incubation phase of the selected DAC projects. He also emphasized the need to separate the awareness campaign preceding the competition from the actual launch of the competition, given the separate requirements and particularities of each. He noted that cultural and educational attainment levels affected the quality and quantity of submissions for consideration in the five locations. He recommended that greater funding be made available to secure the future phases of the project, and for more countries to be invited to participate. He ended his presentation with a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the project.

16. During the second part of his presentation, Mr. Deek focused on the marketing aspects of the project, with specific reference to the need for the incubated applications to be marketed and for greater general understanding of world-wide digital content trends. He noted that little attention was given to the issue of start-up sustainability, and that far more equipment and software licenses were necessary for the continued development of DAC applications. Mr. Deek also described the necessary steps to successful product marketing, from the initial stages of conception through implementation, financing and sales. Mr. Deek addressed some general observations to the winning teams and start-ups based on their applications, and predicted two of these would meet with resounding success internationally.

17. The meeting concluded with the distribution of merit awards to the five incubators and the winning incubated projects and a celebration to honor the participants.

### III. ORGANIZATION OF WORK

#### A. DATE AND VENUE OF THE MEETING

18. The Information and Communication Technology Division (ICTD) of ESCWA hosted the final meeting of its project on “Promotion of the Digital Arabic Content Industry through Incubation” at the United Nations House in Beirut on 14-15 December 2009.

#### B. OPENING SESSION

19. In his opening remarks, Mr. Yousef Nusseir, chief of ICTD, welcomed the participants, noting that the meeting was being held during the final phase of the implementation of the project on “Promotion of the Digital Arabic Content Industry through Incubation”, launched by ESCWA in 2007. Mr. Nusseir stated that ESCWA’s interest in DAC issues stemmed from the difficulties the industry faced, notably the absence of an enabling environment, the dearth of financing, and insufficient qualified manpower. While DAC constitutes less than 0.2 per cent of world content, studies and surveys point to a 43 per cent increase in the number of pages on the Internet between 2007 and 2009. Mr. Nusseir pointed to a number of initiatives and activities, at both the national and regional levels, that have been launched with a view to boosting DAC. He then proceeded with a brief overview of ESCWA, its mission, objectives, activities and constituent divisions. He explained the role of ICTD in building the information society in the ESCWA region through its activities, projects, studies and advisory services.

#### C. ATTENDANCE

20. The meeting was attended by 14 participants from the following six ESCWA member countries: Egypt, Jordan, Lebanon, Palestine, the Syrian Arab Republic and Yemen. The participants included representatives of the partner incubators, members of the incubatee teams, as well as ICT and DAC experts.

#### D. AGENDA

21. The following is a summary of the meeting’s agenda:

1. Opening remarks and introduction of ESCWA.
2. Presentation of the ESCWA project on “Promotion of the Digital Arabic Content Industry through Incubation”.
3. Overview of the summary results of three studies conducted by ESCWA within the scope of the project.
4. Presentations of the five partner incubators’ work and highlights of incubatees’ achievements.
5. Results of the project’s evaluation.

#### E. DOCUMENTS

22. A list of the documents presented at the meeting can be found in annex II of this report. It can also be viewed at: [www.escwa.un.org/information/meetingdetails.asp?referenceNum=1107E](http://www.escwa.un.org/information/meetingdetails.asp?referenceNum=1107E).



## Annex I\*

### LIST OF PARTICIPANTS

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\* Issued as submitted.

Annex II

**LIST OF DOCUMENTS**

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	Title
1.	<b>Documents:</b>
	Agenda
2.	<b>Exhibits:</b>
	<ul style="list-style-type: none"><li>- ESCWA and the Information and Communication Technology Division (in English)</li><li>- Promotion of the DAC Industry through incubation</li><li>- DAC Industry: Opportunities and Challenges</li><li>- Project Implementation, Information and Communication Technology Incubator at the Syrian Computer Society</li><li>- Project Implementation, Jordan Innovation Center at Philadelphia University (in English)</li><li>- Project Implementation, Berytech (in English)</li><li>- Project Implementation, Palestine Information and Communications Technology Incubator (in English)</li><li>- Project Implementation, Aden ICT Incubator</li><li>- The Syrian higher education portal (academia.sy) project – Syrian Arab Republic</li><li>- The ‘Arabi’ automatic text-speech engine – Syrian Arab Republic</li><li>- Alf Mile project, Lebanon</li><li>- The Arab Entrepreneur portal, arapreneurs.com – Jordan (in English)</li><li>- The Arabic OCR project – Palestine (in English)</li><li>- The Aden Tourism portal – Yemen</li><li>- The e-Learning project – Yemen</li><li>- The Electronic Mediator project – Yemen</li><li>- Final Evaluation on and Marketing Plan for the project on “Promotion of the DAC Industry through Incubation”</li></ul>

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