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**Submissions from entities in the United Nations system and elsewhere on their efforts in
2011 to implement the outcome of the WSIS**

Submission by

UNIDO

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 15th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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Executive summary

This year UNIDO reports on five areas pertaining to e-learning that are either new or hitherto have not been highlighted or reported. These include the activities of the UNIDO International Centre for Science and High Technology (ICS) to improve education and communication at a distance, the publication by UNIDO's Trade Capacity-Building branch on e-learning for Total Quality Management, UNIDO's joint work with ITC-ILO to provide training to companies on SME consortia, enterprise development through information and communication technology in Iraq for SMEs, and UNIDO's important work to transfer knowledge on POPs related issues to actors directly affected by contaminated sites.

Applying modern and wide-reaching methods, the UNIDO International Centre for Science and High Technology (ICS) uses e-learning to improve education and communication at a distance. A large amount of training material has been produced and virtual events have been organized in different parts of the world. Topics have been wide-ranging and, for example, include e-Biosafety, Process simulation for a Greener Footprint and Energy savings at Industrial Level, Bio-fuels and bio-based chemicals, and Use of Renewable Energies for Regional Development. The programme is expected to expand rapidly in the near future.

A publication by the Trade Capacity-building branch of UNIDO functions as an online e-learning manual for implementation of Total Quality Management (TQM) throughout companies. The manual contains practical guidelines ranging from management to keeping the workplace clean and tidy. Learning activities help to relate the guidelines in each text to concrete situations in a company as well as prepare structured implementation plans. The main target is small and medium-sized enterprises (SMEs) in developing countries because such firms face major obstacles in marketing their products, particularly regarding TQM.

A fast-growing programme based on e-learning training focuses on SME consortia, which UNIDO carries out jointly with ITC-ILO. The main geographical focus thus far has been Latin American countries but in the near future French-speaking ones will be covered as well. In Iraq, UNIDO is using e-learning techniques to explain concepts and models associated with enterprise development and investment promotion for SMEs. In addition, the material will cover the Supplier Development and Subcontracting Partnership Exchange programme. Finally, in its work on transferring knowledge on POPs (Persistent Organic Pollutants) related issues to those actors directly affected by contaminated sites, UNIDO is making use of e-learning modules.

Description of programmes

➤ E-learning to improve education and communication at a distance.

The UNIDO International Centre for Science and High Technology (ICS) uses e-learning to improve both education and communication at a distance. Examples of such learning include interactive seminars, training, conferences and distance courses. The learning occurs across several different thematic fields and project-based activities. Moreover, it includes transfer of scientific knowledge to industries and institutions in developing countries and countries in transition.

ICS is striving to use modern and wide-reaching methods in order to target a large number of scientists, researchers, students and their institutions. Two objectives drive the activities:

- 1) To meet the need of an audience with slow and costly internet connection, as well as shortage of stable supply of electricity
- 2) To increase the number of virtual participants to ICS events and further allow members of the network and participants in ICS events to organize within their local institutions similar events using ICS material

Since 2009, 18 events have been organized, including 63 scientific seminars, totaling 426 hours of online content. Furthermore, it is estimated that some 3,400 DVD have been distributed and more than 200 e-tutors have confirmed their willingness to organize virtual events in the home country institutions. Until now, 10 virtual events with more than 250 students have been organized in Uganda, Madagascar and Mexico.

This is only the beginning. In the next phase, it is proposed to expand the programme, focusing on exploration of needs, development of an e-learning action plan and e-learning course-ware implementation, monitoring and promotion. To this end, the current lectures-based methodologies will be augmented with learning modules aimed at interactive knowledge sharing. In addition, a catalog repository of current material will be provided so that it can be re-used as well as be used for information purposes.

Thematic fields are wide-ranging and include subjects such as e-Biosafety, Process simulation for a Greener Footprint and Energy savings at Industrial Level, Post Harvest Technologies Management Systems, Bio-fuels and bio-based chemicals, Use of Renewable Energies for Regional Development, and Medicinal and Aromatic Plants.

➤ **E-learning for Total Quality Management**

The Trade Capacity-building branch of UNIDO has prepared a *Roadmap to Quality*, which is an online e-learning manual for implementation of Total Quality Management (TQM) throughout companies. The manual contains practical guidelines ranging from management to keeping the workplace clean and tidy. Learning activities help to relate the guidelines in each text to concrete situations in a company as well as prepare structured implementation plans.

The main target is small and medium-sized enterprises (SMEs) in developing countries. Such firms face major obstacles in marketing their products. Obstacles include finance and investment issues, and international trading regulations, often beyond the power of SMEs and their governments to influence. An exception, however, is the quality of their products. The manual is intended to help companies in this respect.

The complete package consists of:

- A website that contains the entire materials in both HTML and PDF formats
- A CD (including the HTML and PDF formats) that be received by surface mail or downloaded from their website
- A print version so that a firm can have its own *Roadmap to Quality*.

All the material can be downloaded free of charge.

➤ **Training focused on SME consortia**

UNIDO, jointly with ITC-ILO, is also involved in so-called blended training courses, which consist of one week face-to-face and four months of e-learning. These are global training courses focusing on SME consortia.

From 2009 to 2011, three training courses were organized, in cooperation with ITC-ILO and Federexport (the Italian Federation of Export Consortia), for 60 representatives of Latin American public and private sector organizations. After one week of face-to-face training at the ITC-ILO in Turin, Italy, participants were coached on-line (through the e-learning platform), for four months, in the development of actual consortia proposals. As result, more than 20 SME consortia initiatives were prepared in several Latin American countries.

A new UNIDO SME consortia project was recently started in Ecuador as a follow up to the aforementioned training. After the training, most of the participants in these courses will join the Latin American Network of SME consortia promoters, which is under development under the new “Interregional project to promote SME origin and export consortia”, which aims at fostering international knowledge exchange and South-South cooperation.

In the near future, a new blended course for French speaking countries will be conducted in October 2012 in cooperation with WIPO.

➤ **Enterprise development through information and communication technology**

The Project “Enterprise Development through Information and Communication Technology (EDIC) in Iraq” is devising an alternative delivery tool on the concepts and models associated with the “Enterprise Development Programme and Investment Promotion for the SME sector in Iraq” project, which was developed in close collaboration with the “Arab Regional Centre for Entrepreneurship and Investment Training (ARCEIT)”. As part of the new project UNIDO has joined hands with the International Telematic University UNINETTUNO, based in Rome. UNINETTUNO is an athenaeum offering graduate courses through distance learning through two satellite channels and a didactic portal that is available in five languages (Italian, English, French, Spanish and Arabic). The programme will be implemented through the learning system and technological infrastructure developed by UNINETTUNO and will be connected with UNIDO’s expertise on Enterprise Development and Investment Promotion, and Supplier Development and Subcontracting Partnership Exchange (SPX). The existing training material and other UNIDO-relevant training materials is currently being adapted and consolidated into training modules. The training modules will then be produced into electronic format that will be stored and broadcasted using the ICT platform.

In November 2011, consensus was reached with UNINETTUNO with regard to the structure and content of the video lessons for the SPX material, as follows:

- Module 1 "Introduction to the SPX"
- Module 2 “Self improvement within the firm”
- Module 3 “Supplier profiling for matchmaking buyer needs”
- Module 4 “JV alliances and partnership promotion”
- Module 5 “Basic material for investment analysis”
- Module 6 “Economic and financial toolkit for investment analysis”

It was agreed that the six modules should add up to approximately 100 video lessons (45 minutes each) and that the recording of all lessons should be completed by February 2012 at the latest.

➤ **Transfer of knowledge on POPs related issues**

UNIDO is transferring knowledge on POPs (Persistent Organic Pollutants) related issues to those actors directly affected by contaminated sites. To this end, three e-learning modules are being used:

- 1) Overview of POPs, which introduces POPs, their properties and impact on health
- 2) POPs Risk Assessment, which deals with quantitative risk assessment and tiered methodologies
- 3) Rehabilitation and Remediation of POPs, with various strategies for such purposes.