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UNIDO Project

**UNIDO Project US/FEF/04/042 – Training Course on Technology Foresight for Practitioners, 4-8 October 2004, Prague/Czech Republic
(UNIDO Contract No.: 2004/172)**

FINAL REPORT – covering the work performed under the contract – to be submitted by 29 October – as stipulated by the Terms of Reference.

Compiled by: Technology Centre AS CR, Rozvojova 135, Prague 6, Czech Republic

Background

United Nations Industrial Development Organization (UNIDO) in cooperation with the Technology Centre of the Academy of Sciences of CR organized a five-day training course on foresight for experts from Central and Eastern European Countries and the Newly Independent States involved in designing and conducting national and regional foresight exercises. The course was sponsored by the Government of the Czech Republic through the Ministry of Foreign Affairs of the Czech Republic. The course guarantor was the Ministry of Education, Youth and Sports of the Czech Republic.

The main objective of the course was to provide participants with practical knowledge of technology foresight helping them to design and manage foresight exercises: principal foresight methods and possibilities of their applications; case studies as a reference and inspiration for solving problems; guided hands-on exercises in the application of selected foresight methods; networking – establishing contacts with workshop participants and lectures.

Programme of the Course: attached

Course promotion

Information on the course was published at the TC's websites www.tc.cz and www.foresight.cz, both in their Czech and English versions.

Information leaflet

The Technology Centre outlined the contents (incl. preliminary programme) of an information leaflet (based on the last year version) in July 2004. The leaflet was finalized and published by UNIDO and then distributed to potential course participants in coordination with UNIDO promotion activities.

Human resources

A project team was established at the TC to complete the contract tasks:
Kristina Kadlecikova – Course Manager
Eva Svobodova – Course Secretary
Helena Richterova – Course Assistant
Jana Antosova – Assistant

Co-ordination

All activities were continuously consulted with the main stakeholders of the project:

United Nations Industrial Development Organisation (project organiser)
Ministry of Foreign Affairs CR (project sponsor)
Ministry of Education, Youth and Sports CR (project guarantor)

Experts/Lecturers

Technology Centre communicated with experts to deliver their contributions and subsequently to deliver their presentations and short CVs for the course workbook. The textbooks and the workbooks were published. (For detailed information please see Second Progress Report)
TC also prepared an on-line prioritization tool to be used by the course participants.

TC instructed all lecturers to combine their theoretical presentations with practical hands-on exercises – which they did and it proved to add value to the lectures.

The following experts have agreed to deliver lectures in the course (also see the attached Programme of the Course):

Ing. Halka Balackova, Masaryk Institute of Advanced Studies, Czech Technical University, Czech Republic

Dr. Michael Keenan, PREST, University of Manchester, United Kingdom

Prof. Ian Miles, PREST, University of Manchester, United Kingdom

Prof. Hans Georg Graf, Centre for Futures Research, University of St. Gallen, Switzerland

Dr. Kerstin Cuhls, Fraunhofer Institute for Systems and Innovation Research (ISI), Karlsruhe, Germany

Dr. Robert Phaal, Centre for Technology Management IFM, university of Cambridge, United Kingdom

Dr. Karel Klusacek, Technology Centre AS CR, Czech Republic

Hotel and transport facilities, boarding arrangements

TC booked hotel rooms for 35 participants in the Parkhotel Hotel in Prague and arranged for the shuttle-bus service between the hotel and the course venue in the mornings and evenings. Additionally, 5 rooms were booked for the lecturers and UNIDO staff in another hotel – close to the course venue.

It was agreed that participants would confirm the booked accommodation directly. Participants had breakfasts and dinners in the Parkhotel Hotel

(except for one evening for which a social event was planned). Lunches were offered in a self-service canteen close to the course venue. Coffee breaks (according to the programme) were provided for the duration of the Seminar for all participants.

Cultural Event

On Wednesday October 6th a social and cultural event was organised: a guided tour in one of the most historically attractive place in the capital - Prague Castle. The walk was ended in a comfortable restaurant "U Labuti" in Hradcany area where the joint dinner for all participants was served.

Provision of basic facilities for the course

The following facilities were defined as needed and TC provided them: one conference room (up to 50 participants), complete audio equipment, beamer with connected notebook, video conference equipment, recording equipment and services, internet connection, overhead projector, video projector, flipchart, telephone, fax, copy machine, computers and printers.

The application process

Technology Centre prepared an on-line application form and provided computer support for handling the application process. The on-line application form was prepared on the basis of application form for a training programme provided by UNIDO, containing all data to be requested from applicants for participation in the course. A database of applicants was generated upon their filling-in and submitting the electronic application form. The on-line application form was finalized at the end of July 2004. It was made accessible from both the TC and the UNIDO web site.

TC was continuously monitoring the application process and reviewing the filled-in forms for their completeness. The applicants had to be approved to add data they had not provided (since not deemed mandatory) and which were necessary for the evaluation/ selection process.

TC sent the first batch of applicants to the Ministry of Foreign Affairs for comment on 19 August, the second batch followed on 25 August, next was sent on 30 August and finally the last batch on 3 September (closing date). Based on UNIDO request TC forwarded the evaluation of applicants by both the Technology Centre and the Ministry of Foreigner Affairs to UNIDO by 7 September 2004 so that UNIDO was able to inform participants on their acceptance in due time.

Altogether 82 applicants from 35 countries expressed their interest in participating in the course as of the end of September.

Representatives of the following countries expressed their interest: Armenia, Austria, Benin, Brazil, Bulgaria, Cameroon, Congo, Czech

Republic, Chile, Denmark, Estonia, France, Georgia, Hungary, India, Italy, Iran, Kenya, Lithuania, Liberia, Nigeria, Pakistan, Peru, Poland, Portugal, Romania, Slovakia, Slovenia, South Africa, Sri Lanka, St. Lucia, Sweden, Turkey, Ukraine, USA. (For detailed information regarding the selection of participants please see the First Progress Report)

37 participants from 22 countries have been selected for attending the course.

Finally 33 participants from 20 countries attended the course. (See the List of Participants with name, institution and country). Representatives of the following countries participated in the course: Armenia, Austria, Brazil, Bulgaria, Czech Republic, Denmark, Estonia, France, Georgia, Hungary, Italy, Lithuania, Poland, Romania, Slovakia, Slovenia, South Africa, Turkey, USA.

Two participants from Pakistan, one from Ukraine did not finally arrive and attend the course, because they were not successful in obtaining visa. One participant from Sri Lanka did not obtain subsidy for travel expense and one Czech participant fell ill.

Testing the knowledge

At the end of the course the participants had to pass a multiple-choice test examining their knowledge. All the candidates passed the test and were awarded by the certificate that they successfully completed the course.

Evaluation of the Course by Participants

A standard Training Course Appraisal Form was provided by UNIDO. On the last day of the course the Form was distributed among the participants who were asked to kindly provide their opinion and comments. Generally, the course was assessed positively in all aspects, i.e. pre-course administration, achievement of course objectives, course content, training methods, documentation and handouts, trainer's knowledge of the subject, communication with trainers and overall usefulness of the training.


Jana Antosova
Technology Centre AS CR

Attached:
Technology Foresight for Practitioners – Programme
List of Participants

2004 Technology Foresight for Practitioners

Training course
4-8 October 2004, Prague, Czech Republic

Regional Initiative on Technology Foresight for Central and Eastern Europe and the Newly Independent States

Organizer: United Nations Industrial Development Organization in cooperation with Technology Centre of the Academy of Sciences of the Czech Republic

Sponsor: The Government of the Czech Republic, the Ministry of Foreign Affairs of the Czech Republic

Guarantor: The Ministry of Education, Youth and Sports of the Czech Republic

OBJECTIVES

The main objective is to provide participants with the knowledge of technology foresight tools as well as hands-on experience in applying such tools and methodologies to address strategic questions and decisions such as:

What technologies are likely and/or desirable to be dominant in national or regional economy?

What priorities should national research and development programmes feature?

Where should the budget for publicly funded research and development be allocated?

What skills and competencies should be developed for the future?

What will be the demand of society for industrial products, services, food, housing, health care, education, life style and welfare over the next 10 years?

EXPECTED OUTPUTS

The course will provide the participants with practical knowledge of technology foresight helping them to design and manage foresight exercises.

- principal foresight methods and possibilities of their applications;
- case studies as a reference and inspiration for solving problems;
- guided hands-on exercises in the application of selected foresight methods;
- networking – establishing contacts with workshop participants and lecturers.

METHODOLOGY

The five-day course will include a brief introduction of foresight as a tool for shaping the future and illustrate the range of issues on which foresight can or cannot be applied. Presentation of major methods used in foresight will include illustrative examples and case studies. The course participants will have an opportunity to verify the acquired knowledge in practical hands-on sessions. The final stage of the course will offer to course participants an opportunity to prepare their own foresight exercise.

Programme

Day 1 – Monday 4 October 2004

- 09:00-09:30 **Opening ceremony**
Representatives of:
Ministry of Foreign Affairs of the Czech Republic
United Nations Industrial Development Organisation
Ministry of Education, Youth and Sports of the Czech Republic.
- 09:30-10:00 **Introductory session**
Ricardo Seidl da Fonseca, United Nations Industrial Development Organisation:
UNIDO Regional Initiative on Technology Foresight.
Karel Klusacek, Technology Centre AS CR, Czech Republic:
Objectives of the course, introduction of participants.
- 10:00-11:30 **Technology Foresight – An Introduction**
Michael Keenan, PREST, University of Manchester, United Kingdom:
Background, basic principles, objectives, some national foresight case studies, emerging developments.
- 11:30-13:00 **Foresight – organising and managing a foresight exercise**
Karel Klusacek, Technology Centre AS CR, Czech Republic:
General guidelines, focusing the exercise, objectives, choosing a relevant/suitable method, identification of main stakeholders and participants, executive and management structure, budget, timing, possible resources, case examples.
- 13:00-14:00 Lunch
- 14:00-15:30 **Overview of Methods used in Foresight**
Michael Keenan, PREST, University of Manchester, United Kingdom:
Why to use formal methods, selecting foresight methods, key characteristics, presenting foresight methods, examples of methods in use
- 15:30-18:00 **Introduction to Futures Thinking**
Hans Georg Graf, Centre for Futures Research, University of St. Gallen, Switzerland:
Methodological Considerations, Megatrend Analysis/Scenario Planning

Day 2 – Tuesday 5 October 2004

- 09:00-11:00 **Idea Generation**
Halka Balackova, Masaryk Institute of Advanced Studies, Czech
Technical University, Czech Republic:
Brainstorming and other creative problem-solving methods.
- 11:00 -13:00 **Using Expert Panels in Foresight**
Michael Keenan, PREST, University of Manchester, United
Kingdom:
*Principles, defining a panel's mandate, panel profile, identifying
panel members, costs, organizing and managing a panel's work,
outputs and action, case examples.*
- 13:00-14:00 Lunch
- 14:00-18:00 **Scenario Planning**
Ian Miles, PREST, University of Manchester, United Kingdom:
*Principles and purposes, organization of a scenario workshop,
practice sessions.*

Day 3 – Wednesday 6 October 2004

- 09:00-11:00 **Delphi Surveys**
Kerstin Cuhls, ISI Fraunhofer Gesellschaft mbH, Karlsruhe,
Germany:
Principles, process, examples, group activity.
- 11:00-13:00 **Priority-Setting in Foresight**
Kerstin Cuhls, ISI Fraunhofer Gesellschaft mbH, Karlsruhe,
Germany:
Objectives, methods, examples, criteria, larger framework.
- 13:00-14:00 Lunch
- 14:00-16:00 **Critical Technologies**
Karel Klusacek, Technology Centre AS CR, Czech Republic:
*Principles, process, example – national research priorities,
practical exercise.*
- 16:00 Cultural and social event.

Day 4 – Thursday 7 October 2004

- 09:00-13:00 **Technology Roadmapping**
Robert Phaal, University of Cambridge, United Kingdom:
Principles and practice, T-Plan 'fast-start' approach, group activity.
- 13:00-14:00 Lunch
- 14:00-18:00 **Designing Foresight Exercise I**
Course participants, divided into small groups, will be given concrete tasks, which could be solved by foresight methods. Groups will decide which method(s) would be suitable to conduct the exercise.

Day 5 – Friday 8 October 2004

- 09:00-10:00 **Testing Knowledge Acquired During the Course**
Course participants will be subjected to a multiple-choice test.
- 10:00-13:00 **Designing Foresight Exercise II**
Groups will define basic elements and develop the structure of a foresight exercise they choose.
- 13:00-14:00 Lunch
- 14:00-16:00 **Presentation of Foresight Exercises**
Groups will report on their exercises to course participants and evaluators.
- 16:00-17:00 **Final discussion, awarding diplomas and closing**

List of Participants

First name	Surname	Post Title	Institution	Country	E-mail
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List of Participants

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