



UNIDOScope

weekly internet newsletter

CONTENTS: 11 - 17 April 2004

- ▶ Upcoming Asian Business Mission to Namibia and Mozambique
- ▶ <http://roadmapping.cgee.org.br>
your online guide to Technology Roadmapping
- ▶ COMING SOON
- ▶ OTHER NEWSLETTERS

- ▶ Current Feature
- ▶ PRINT-FRIENDLY VERSIONS of UNIDOScope

PAST ISSUES

[this month](#)

[4 - 10 April](#)

past months

[Mar-2004](#)

[Feb-2004](#)

[Dec-2003](#)

[Nov-2003](#)

[Oct-2003](#)

[Sep-2003](#)

Upcoming Asian Business Mission to Namibia and Mozambique

Mumbai, Chennai, Kuala Lumpur, Jakarta, Shanghai, Hangzhou, Seoul, Daegue, 3 March - 1 April, 2004



Mozambique and Namibia on the road with AAITPC
"face to face" meetings in Seoul [view bigger picture](#)

The "Roadshow" in preparation for the 4th AAITPC Business Mission (this year to Namibia and Mozambique) has just returned to base after presenting investment opportunities to some 300 potential investors in eight Asian cities. Sectors that have attracted the main interest so far are: textiles, garments, wood processing and optical lenses. The AAITPC or Hippalos Center is UNIDO's Asia-Africa Investment & Technology Promotion Centre. Based on responses to the Roadshow, the mission to Namibia and Mozambique (tentatively scheduled for the week of July 5, 2004) is expected to attract some 25 - 30 participants. The AAITPC site (<http://www.unido-aaitpc.org/index.html>) has information on the investment climate and investment opportunities in Mozambique and Namibia.

The eight city promotion tour started in Mumbai, India on March 3, 2004, moving then to Chennai and on to: Malaysia (Kuala Lumpur); Indonesia (Jakarta); China (Shanghai and Hangzhou); ending in Korea with visits to Seoul and then on April first, to Daegue.

The main actors in the Roadshow (funded by AAITPC) were Namibia and Mozambique Investment Promotion Agency (IPA) representatives, Mr. Freddie !Gaoseb and Ms. Marah Zaire of Namibia Investment Centre (NIC) and Dr. Mussa Usman and Mr. Horacio Dombo of Mozambique's Centro de Promoção de Investimentos (CPI). Namibia's Minister of Trade and Industry, Jesaya Nyamu, sent two more officials (Ms. Bonaventura April and Mr. Elmo Kaiyamo) at Namibia's own expense. AAITPC National Project Coordinator, Tahir Jamhari accompanied the African delegates on the India, Malaysia and Indonesia legs and the Heads of UNIDO Investment Technology Promotion Offices (ITPOs) in Shanghai and Seoul, Messrs. Dong Tao and

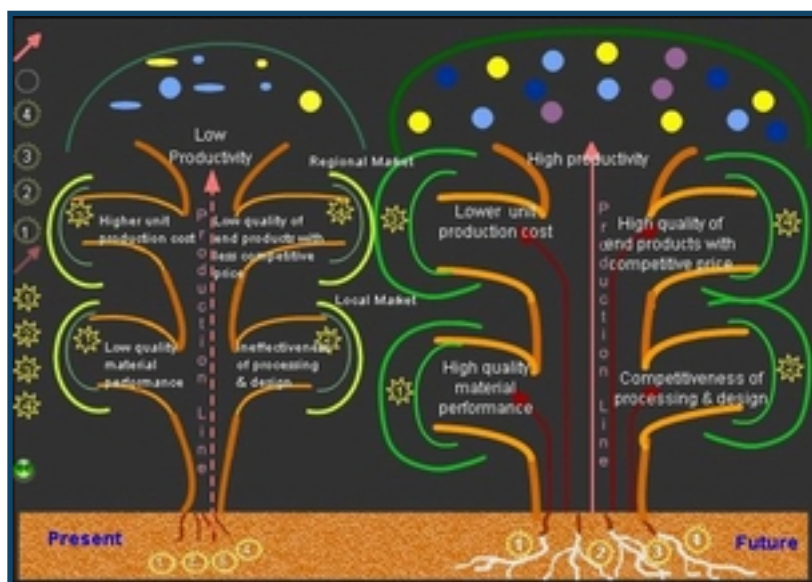
Wang-II Kang, covered China and Korea respectively.

AAITPC partners that co-organized the tour were: in India, the Confederation of Indian Industries (CII); in Malaysia, the Associated Chinese Chambers of Commerce and Industry of Malaysia (ACCCIM); in Indonesia, KADIN (the Indonesian Chamber of Commerce and Industry); in China, SOIDB (the Shanghai Overseas Investment Development Board) and ZIPC (the Zhejiang International Investment Promotion Center); and in Korea, KITA (the Korea International Trade Association).

The UNIDO AAITPC - Hippalos Centre, funded by Japan, was set up in August, 1999 as [an outcome of TICAD II](#), to promote investment and technology promotion from Asian countries to African countries. To date, 1,925 Asian and African business people have met under the project to discuss trade and investment.

MORE INFO ▶ Masato Tsukiji, Tel: +431 26026 3589, Email: M.Tsukiji@unido.org

<http://roadmapping.cgee.org.br> Your online guide to Technology Roadmapping



the "high productivity trade competitiveness tree" animated interactive version at <http://roadmapping.cgee.org.br/> "TR and Industry" / "Trade Competitiveness"

Technology foresight is regarded as the most upstream element of the technology development process. It provides inputs for the formulation of technology policies and strategies that guide the development of technological infrastructure. In addition, technology foresight provides support to innovation, and incentives and assistance to enterprises in the domain of technology management and technology transfer, leading to enhanced competitiveness and growth.

Currently, UNIDO is carrying out regional initiatives in Latin America and in central and eastern Europe (CEE) and the Newly Independent States (NIS), to assist in the development of capabilities in these regions to use technology foresight as a practical tool in designing policies and strategies that exploit emerging technologies and innovations.

The next event on UNIDO's Technology Foresight calendar is the [Technology Fair of the Future](#) to be held at [UNCTAD XI](#) in Brazil in June 2004. The eleventh general conference of UNCTAD is expected to draw some 3,000 participants from all over the world. Technology sectors selected for the Fair are: energy, biotechnology, nano-technology, materials, aerospace, information and communication. Sub-sectors vital for low-income and least developed countries, such as: renewable energy; agro-food processing; medicines; and building materials technology, will also be represented. The Fair will provide an opportunity to forge partnerships, strategic alliances and joint ventures.

The Technology Fair of the Future is just one of the tools of UNIDO's Technology Foresight Programme. Another tool, one that UNIDOScope has not said much about to date, is Technology Roadmapping. Given that it is something that could come into play in the follow-up to the Fair, allow us to introduce: *Technology Roadmapping*. And what better place to go for this than the [UNIDO-IMAAC Technology Roadmapping site](#) <http://roadmapping.cgee.org.br>. As you see from the URL, Brazil, the venue for UNCTAD XI, is also the home of the site. [IMAAC](#), the *International Materials Assessment and Application Centre*, one of [UNIDO's](#)

[International Technology Centres](#), which, along with [CGEE](#), maintains the site, is located at Brazil's Centro de Tecnologia Mineral ([CETEM](#)).

The site is very animated, very interactive and very informative. And you will need Flash 7 to see it. The main menus are: [About UNIDO TR](#) | [TR & Industry](#) | [Overall Implementation](#) | [Publications](#) | Experts Databank | News/Newsletters | [Discussion Forum](#) (Experts Databank and News/Newsletters are not active yet).

My first question when I heard of Technology Roadmapping was "What is the difference between Technology Roadmapping and Technology Foresight"?

The big answer to that question is at "[TR and Industry](#) / open menu / interactive TR model". This is an animated "model of the TR process in developing countries" that indicates where Technology Foresight (TF), Technology Forecasting (Tf) and Technology Roadmapping (TR) come into play. You can animate the model and pause it any number of times till you get the gist of the process and click on the (TF), (Tf) and (TR) components for definitions. Among the other interactive options are a 13 point comparison of (TF), (Tf) and (TR); a "production chain analysis"; and a flow-chart that takes you from Technology Roadmapping to an Industrial Innovation Plan.

If you just want to know the basics, the definitions of (TF), (Tf) and (TR) are as follows: **Technology Foresight (TF)** is a systematic process involving selected experts to build consensus on vision for long-term future in science, technology, economy and society. Its scope ranges from basic sciences to upfront social and economic issues as well as applied technology, in order to anticipate scientific technological and societal trends. **Technology Forecasting (Tf)** is a quantified prediction of the future, normally based on statistical techniques that extrapolate historical quantitative data for long-term development. Tf aims, with reference to accurate projections, at determining future actions, which could provide the ground for dedicated policies. **Technology Roadmapping (TR)** is a systematic approach enabling industry stakeholders to identify critical technology needs to address future market demand. TR aims at analyzing specific productive sectors in terms of technologies and resources to address new demand for industrial products and services.

Most of the methods used in Technology Roadmapping exercises have their origins in technology forecasting. Mixed methodologies have become the backbone of roadmapping activities in many countries because each method has weaknesses and strengths and they are mutually supportive when used together. Of these, scenario writing and workshop are the major methodologies used. However, other methodologies, such as SWOT, Delphi, Brainstorming etc are also used as supporting tools (All of these are explained under "[TR and Industry](#) / open menu / Methodology").

"Interactive TR model" and "Methodology" are just two of the eight interesting items accessible via "TR and Industry". For instance, another menu item gives you "Implications of TR" - at the Industry level and at the enterprise level.

At the industry level, technology roadmapping involves multiple companies, either as a consortium or an entire industry (industry technology roadmapping). This level of technology roadmap allows industry to collaboratively develop the key underlying technologies, rather than redundantly funding the same research and under funding or missing other important technologies. This can result in significant benefits because a certain technology may be too expensive for a single company to support or take too long to develop, given the resources that can be justified. However, combining the resources across companies may make developing the technology possible and consequently the industry more competitive.

At the enterprise level, some companies do technology roadmapping internally as one aspect of their technology planning (corporate technology roadmapping). By focusing on common needs, companies can more effectively address critical research and collaboratively develop the common technologies.

At both the industry and individual corporate levels, technology roadmapping has several potential uses and resulting benefits. Firstly, technology roadmapping provides a mechanism to help experts forecast technology developments in targeted areas relevant to future needs. Secondly, it can provide a framework of business plan and coordinate technology developments both within a company or an entire industry. Thirdly, it can bring about a consensus among experts and stakeholders.

"TR and Industry" also gives the basics on how to undertake Technology Roadmapping and under "Trade Competitiveness" presents the fruits of our efforts in a very attractive "high productivity" tree of the future.

The "Overall Implementation" menu item is a presentation prepared on the basis of information on world wide international Tf, TF and TR exercises that are currently building up at UNIDO. For the time being data collected refers mainly to the exercises in industrialized countries. However, information on national exercises carried out in developing countries will also be added.

Even if you are not interested in TF, Tf or TR, the site <http://roadmapping.cgee.org.br> is worth a visit!

MORE INFO ► Ketmanee Ausadamongkol, Tel: +431 26026 3356, Email: K.Ausadamongkol@unido.org

MORE INFO ► Vladimir Kozharnovich, Tel: +431 26026 3720, Email: V.Kozharnovich@unido.org

COMING SOON

Energy

Biotechnology

Nano-
Technology

Materials

Information
Communication
Technology

Aerospace
Industry

Technology Fair of the Future at UNCTAD XI, São Paulo, Brazil, 14 - 18 June 2004, FREE OF CHARGE to selected participants. If you are an innovative enterprise, technology park, research and development institute, or institution for innovation in an industrialized or emerging economy that has promising new technology, you could be among the 100 or so who will be eligible for an exhibition area, auditorium, multi-media area and room for business meetings (including video conferencing) free of charge.

The Technology Fair of the Future is one of a number of events being held at UNCTAD XI which together are expected to attract some 3,000 participants from over 190 countries. Other events are the [EMPRETEC](#) /SEBRAE Business Fair, [WAIPA](#) Investment Forum and Fair Brazil Invest, [ITC](#) Competitiveness Tools Fair and NGOs Solidarity Market Fair. The Technology Fair of the Future will take place at the Anhembi (São Paulo city) Conventions and Exhibition Centre, simultaneously with the FISPAL 20th International Food Fair, the most important fair for food products in Latin America.

The Technology Fair highlights selected technology sectors: energy; biotechnology; nano-technology and materials; information and communication; aerospace. Special feature: technologies for low-income and least developed countries (LDCs) - renewable energy, agro-food processing, medicines and building materials.

Due to the limited number of places available, applications should be submitted as early as possible. See the [Fair homepage](#) for more details and the online application form <http://www.unidofarm.org>

[more coming events](#)

OTHER NEWSLETTERS



SPX News: quarterly newsletter of UNIDO's Subcontracting and Industrial Partnership Programme

**BINAS
ONLINE**

BINAS ONLINE is UNIDO's Biosafety Information Network and Advisory Service



International Centre for Advancement of Manufacturing Technology



ITPO Tokyo INVESTMENT NEWS (in English) from UNIDO's Investment Technology Promotion Office in Tokyo.



The Asia-Africa Investment & Technology Promotion Centre



The World Intellectual Property Organization's (WIPO's) SME e-journal



on India's Small Industries Development Organization SIDO site



The **International Network for Small and Medium Sized Enterprises-INSME**



features innovations, new policies and technologies



OECD - Entrepreneurship in Developing Countries



UNDP newsletter published quarterly, covering UNDP - supported programmes



every two months (English and French) contains 'Country Reports' and the 'Dossier' on ACP - EU activities [SUBSCRIBE HERE](#)



usually found in the "Just Published" list on the bottom right of the UNCTAD homepage



Ethiopian Business Development Services Network, part of GTZ-MSE - UNIDO programme for Micro and Small Enterprises in Ethiopia.



GKP is a "network of networks" of public, private and non profit orgs from developed and developing countries



WAITRO NEWS from the World Association of Industrial and Technological Research Organizations.



sponsored by the [United Nations Foundation](#) and its sister organization, the [Better World Fund](#).



the European Association of Development Research and Training Institutes e-news 4 - 5 times a year.



quarterly review: articles written by and for industry managers, government officials and researchers



by the UNEP DTIE OzonAction Programme 3 times per year - in Arabic, Chinese, English, French, Russian and Spanish -



<http://www.un.org/News/>
[SUBSCRIBE HERE](#)



works to assist in developing points of view of the South on major policy issues, and to generate ideas and action-oriented proposals.
[SUBSCRIBE HERE](#)