

**CENTRE FOR SCIENCE AND TECHNOLOGY OF THE NON-ALIGNED
AND OTHER DEVELOPING COUNTRIES
(NAM S&T CENTRE)**

.....

**INTERNATIONAL TRAINING WORKSHOP ON
COMMERCIALISATION OF TECHNOLOGY**

**TEHRAN, IRAN
MAY 23 – 26, 2016**

BRIEF REPORT

Developing countries have begun to recognise the central role played by commercialisation in raising the quality of life of the people. A key element in the process of commercialisation of technology in a developing country is the consultation between the government, institutions and industry, which need to include the specific technological needs and human / material resources of the country. The transfer and commercialisation of technology and related policy issues is one of the identified thrust areas of the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) for capacity building and exchange of information and expertise among the developing countries.

Keeping the above in view, the NAM S&T Centre in partnership with the Pardis Technology Park (PTP) of Tehran organised an International Training Workshop on ‘Commercialisation of Technology’ during 23-26 May 2016 at PTP, which brought various stake holders, viz. scientists, experts and professionals engaged in R&D, policy making and implementation, to a common platform for up gradation of their skills and sharing views and experiences in the transfer and commercialization of technology.

The Opening Ceremony commenced with a welcome note by Mr. Amir Mehmanchi, Public Relations & International Expert, PTP. Mr. AminReza Khaleghian, Director General for International Affairs & Public Relations of PTP gave a brief address after which Prof. Dr. Arun P. Kulshreshtha, Director General, NAM S&T Centre addressed the audience and presented the genesis of the event touching upon the basic issues related to technology transfer and commercialisation and also gave a short description of the activities of the inter-governmental organisation headed by him. The Chief Guest, Dr. Ali M. Birang, Deputy of International Affairs and Technology Exchange, Vice-Presidency for Science and Technology, Islamic Republic of Iran in his Inaugural Address remarked about the Nanotech and the law which the government had passed in 2013 that supports the knowledge and scientific development of the country. He also shared his experiences from the past.

The Tehran Training Workshop was attended by 26 senior professionals from 20 NAM countries, including Cambodia, Cuba, Ghana, India, Iraq, Kenya, Malaysia, Mauritius, Nigeria, Oman, Pakistan, Palestine, South Africa, Sri Lanka, Tanzania, Togo, Venezuela, Zambia and Zimbabwe and the host country Iran. The Resource Persons for the training component of the event were from Austria, Belgium, Germany, Iran, Switzerland and the USA.

The 23 foreign participants were from Cambodia [Mr. Teav Rongsa, Director, GS-NSTC (National Science and Technology Council), Ministry of Planning, Phnom Penh]; Cuba [Dr. Armando Rodríguez Batista, Director, Ministry of Science, Technology and Environment,

Havana]; Ghana [Mr. Edem Cudjoe Bensah, Head / Sr. Researcher, Kumasi Polytechnic, Kumasi]; India [Dr. Raj Kumar Sharma, Scientist-E, International Multilateral & Regional Cooperation (IMRC), Department of Science & Technology (DST), Government of India, New Delhi and Ms. Ritu Kumari, Research Associate, NAM S&T Centre]; Iraq [Dr. Thanaa Hussein Abd Al-Badri, Head of Multimedia department, Ministry of Science and Technology (MOST), Baghdad Al-Jadriah]; Kenya [Dr. John Muyega Ayisi, Deputy Director, Ministry of Education, Science & Technology, Nairobi]; Malaysia [Mr. Ahmad Syahir bin Mohd Nasir, Principal Assistant Secretary, Innovation and Commercialisation Division, MOSTI, Putrajaya]; Mauritius [Mr. Mohammad Reza Soodin, Research Officer, National Computer Board, Port Louis]; Nigeria [Mr. Igili Andrew Ojo, Chief Scientific Officer, Federal Ministry of Science and Technology, Abuja; Dr. Mrs. Mercy Sule Bassi, Deputy Director & Head of Advance Materials, Raw Materials Research and Development Council (RMRDC), Abuja; Dr. Danazumi Mohammed Ibrahim, Director General/CEO, National Office for Technology Acquisition and Promotion (NOTAP), Abuja; and Mr. Samuel Ojonimi Eneanya Acting Director, NOTAP, Abuja]; Oman [Ms. Sheikha Nasser Ali Al Akzami, Deputy Director, Innovation & Entrepreneurship Department, Sultan Qaboos University, Al Khodh]; Pakistan [Dr. Syed Shahid Hussain, Executive Director, Commercialization Cell, Ministry of Science & Technology, Islamabad]; Palestine [Mr. Zaki S. S. Afaghani, Administrator and Finance Director, Palestinian Incubator for Energy (PIE), Jericho]; South Africa [Mr. Elijah Mokhethi, Head, Energy, Technology Innovation Agency, Menlyn, Pretoria]; Sri Lanka [Mrs. R. Wijjaludchumi, Secretary to the Government, Ministry of Science, Technology and Research, Colombo]; Tanzania [Dr. Mafunda Dugushilu, Director, Innovation, Entrepreneurship & Competitiveness, Tanzania Commission for Science and Technology (COSTECH), Dar es Salaam]; Togo [Dr. Edjame Kodjovi Sidéra, Senior Lecturer, WASCAL University, Lomé]; Venezuela [Prof. Dr. Anwar Salem Hasmy Aguilar, Professor, Simon Bolívar University and President, National Observatory for Science, Technology and Innovation, Ministry for Higher Education, Science and Technology, Caracas]; Zambia [Mr. David Shula Mpundu, Manager, Technology & Marketing, National Technology Business Centre, Lusaka]; and Zimbabwe [Prof. Wilson Parawira, Executive Dean, Faculty of Science, Bindura University of Science Education, Bindura]. The NAM S&T Centre was represented by its Director General, Prof. Arun P. Kulshreshtha and Mr. M. Bandopadhyay, Senior Expert.

Eight Resource Persons, who made technical presentations during the Training Workshop, were Prof. Rainer Hasenauer, Professor of Marketing, Vienna University of Economics and Business, Austria; Prof. Charles M. Giacomini, Director General, European Institute for Export Compliance (EIFEC), Brussels, Belgium; Prof. Dr. Bertram Lohmüller, Director, Steinbeis Global Institute Tübingen; Dr. Ali Maleki, Faculty Member, Sharif University, Tehran, Iran; Mr. Mahmoud Karimi, CEO, Simorgh Investment Group, Iran; Mr. Seyed Hosein Dabaghian, Deputy of Investment, Innovation and prosperity Fund, Behzad, Iran; Professor Arash Golnam, System Dynamics Modeler, Greenwood Strategic Advisors and Lecturer, Business School Lausanne (BSL), Chavannes, Switzerland; and Prof. Michael O'Duffy, CEO, Centre for Software Engineering, The STARS Group, USA

The overall programme of the Training Workshop was conducted in eleven technical sessions and the Plenary Concluding Session. Two sessions of the event were conducted in the Conference Hall of the Tehran International Fairground.

The presentations made by the Resource Persons were by Prof. Rainer Hasenauer of Austria on

‘Commercialization’; by Prof. Charles M. Giacomini of Belgium on ‘Studying the Commercialisation of Indigenous Model’; by Prof. Dr. Bertram Lohmüller of Germany on ‘From Idea to Innovation’; by Dr. Ali Maleki of Iran on ‘Innovation Survey In Iran’; by Mr. Mahmoud Karimi on ‘Innovation Marathon (Iranian Experiences: From Start-up to IPO)’; by Mr. Seyed Hosein Dabaghian on ‘Venture Capital Success Factor’; by Prof. Arash Golnam of Switzerland on ‘System Dynamics and Technology Diffusion’; and by Prof. Michael O’Duffy of the USA on ‘Innovation Start-Up’.

The presentations made by the participants from the NAM countries were on ‘LYLY Rice Crackers – A “Lucrative Trademark of Vivid Creation” by Mr. Teav Rongsa; ‘Cuban National Innovation System’ by Dr. Armando Rodríguez Batista; ‘Promoting Renewable Energy Technology Transfer to Ghana’ by Mr. Edem Cudjoe Bensah; ‘Public R&D Funding – The Indian Scenario for Lab to Market Ecosystem’ by Dr. Raj Kumar Sharma; Current Status of Biotechnology Commercialisation in India’ by Ms. Ritu Kumari; ‘Difficulties in Technology Transfer and Commercialisation of Public Funding Projects: Iraqi Projects Practices Case Study’ by Dr. Thanaa Hussein Abd Al-Badri; ‘Initiatives to promote Commercialisation of Research Outputs from Kenyan Universities’ by Dr. John Muyega Ayisi; ‘Malaysia Commercialisation Year’ by Mr. Ahmad Syahir bin Mohd Nasir; ‘Technology Transfer and Commercialisation of Technologies in Mauritius’ by Mr. Mohammad Reza Soodin; ‘Commercialisation of Technologies: Experience by FMST Committee on Commercialisation of Technologies in Nigeria’ by Mr. Igili Andrew Ojo; ‘Commercialisation of Research and Development Results in Nigeria: The Experience with Copper Sulphate Production’ by Dr. Mrs. Mercy Sule Bassi; ‘The Role of Government in supporting Technology Commercialisation in Nigeria’ by Dr. Danazumi Mohammed Ibrahim; ‘The Socio-economic Imperatives of Intellectual Property (IP) Protection in Technology Commercialisation’ by Mr. Samuel Ojonimi Eneanya; ‘Technology Transfer at Sultan Qaboos University: Challenges and the Way Forward’ by Ms. Sheikha Nasser Ali Al Akzami; ‘Research, Innovation and Commercialisation: Current Status in Pakistan’ by Dr. Syed Shahid Hussain; ‘Palestinian Incubators: Challenges and Opportunities’ by Mr. Zaki S. S. Afaghani; ‘From Innovation to Commercialisation’ by Mr. Elijah Mokhethi; ‘Innovation Eco System Development in Sri Lanka’ by Mrs R Wijjaludchumi; ‘Commercialisation of Technologies from R&D Institutions in Tanzania: Major Drivers and Barriers’ by Dr. Mafunda Dugushilu; ‘What Technologies Togo can Commercialize and for What Kind of Population?’ by Dr. Edjame Kodjovi Sidéra; ‘Knowledge Transfer in Venezuela through a Participatory and Community Based Approach’ by Prof. Dr. Anwar Salem Hasmy Aguilar; ‘Challenges to Technology Transfer and Commercialisation – Case of NTBC in Zambia’ by Mr. David Shula Mpundu; ‘Proposed Manual on Set of Incentives and Policy Instruments aimed at Promotion of Innovations and Commercialisation of Research and Development for the Government of Zimbabwe’ by Prof. Wilson Parawira. The co-organiser of the Training Workshop Mr. Madhusudan Bandyopadhyay from the NAM S&T Centre also made a presentation on ‘Mechanisms for Transfer and Commercialisation of Technologies: Institution – Industry Links and Technology Business Incubators’.

The Plenary Session was chaired by Prof. Dr. Arun Kulshreshtha (DG, NAM S&T Centre). Extensive discussion took place on a draft ‘Tehran Resolution on Transfer and Commercialisation of Technology’, which in the end was unanimously adopted by the participants for its submission to the concerned ministries, agencies and other authorities in their countries. The Certificates of Participation were handed over to the Workshop participants by Mr. Amir Mehmanchi and Prof. Arun Kulshreshtha. The Session concluded with the Vote of

Thanks by Mr. Amir Mehmanchi, Pardis Technology Park (PTP). Some of the participants also thanked the local organisers for the fine arrangements made and conducting the Training Workshop.

During the workshop the participants sponsored by the NAM S&T Centre got an opportunity to visit the Innovation & Technology Exhibition (INOTEX 2016) and Milad tower in Tehran city.