

## II-D. International Technology Transfer Programme

### 1. PREAMBLE

International Technology Transfer Programme (ITTP) is a component programme of 'Technology Promotion, Development and Utilization (TPDU) Programmes'. The programme has its genesis in Transfer and Trading in Technology (TATT) scheme, which was formulated in the seventh five year plan and continued till the ninth five year plan. ITTP has consolidated various technology export promotion activities of the earlier scheme and aims at encouraging and supporting Indian industry for greater participation in international technology trade.

### 2. OBJECTIVES

Promoting transfer of technologies, projects and services from India with a view to enhance the reach of Indian industry beyond the national boundaries as well as promoting transfer of technologies from other countries to India with a view to enhance the technology export capability of Indian industry.

The major activities of the programme include:

- To compile information on exportable technologies and technology intensive projects, products & services available with Indian industry and R&D establishments;
- To create awareness about our technology export capabilities among potential foreign buyers or collaborators;
- To support capability building of industries and R&D establishments for technology intensive exports;
- To support research and analytical studies aimed at providing inputs to the government for technology export related policy formulation;

- To promote and support Institutional Mechanisms for catalyzing international technology transfer and trade; and
- To facilitate signing of MoUs / Agreements on High Technology Cooperation and Trade between Indian and foreign industrial units.

### 3. TECHNICAL ADVISORY COMMITTEE

The technical advisory committee that considers and recommends new projects under the programme was reconstituted last year. The tenure of the committee is till 31<sup>st</sup> March, 2012. The committee has members from the government departments, R&D establishments, academic institutions, financial institutions and industry associations. The committee reviews the on-going activities and recommends new projects.

### 4. PROJECTS/ACTIVITIES DURING JANUARY 2008 – MARCH 2009

Details of important projects/activities that were completed or were in progress during the year under report are given below:

#### 4.1 Trans-nationalization of SMEs

Two Studies on trans-nationalization of SMEs in the machine tool sector and auto-components sector were completed during the year. The objective of the studies were: to understand the major factors that help or hinder the process of trans-nationalization of SMEs; to suggest specific capability development programmes that would promote trans-nationalization of SMEs; and to define the catalytic role that the government can

play to accelerate the process of transnationalization of SMEs. In the machine tools sector, it came out that there is a need to create a R&D institution jointly by 10-15 machine tool companies so that the R&D centre can offer technology solutions to the promoter companies. In the auto-components sector, it came out that SMEs have an opportunity to enter foreign markets as subsidiaries or ancillary suppliers to big corporates like the Tatas and Mahindras in overseas markets.

#### **4.2 International Awareness- cum- training programme on packaging technologies and machinery including quality assessment systems for packaging materials and equipment (for food processing sector)**

The programme was organized during the year whose objectives were: to share and exchange information on the packaging technologies and related machinery in the food processing sector, used in various countries; to discuss the various quality assessment systems for packaging materials and equipment; to promote and catalyze the extensive use of these technologies and machinery for mutual benefit; and to evolve collaborative R&D and technology related projects, joint ventures etc. in the area of packaging technology for the food processing sector. The programme was attended by 19 international participants and 11 national participants. The international participants were from 7 countries viz. Thailand, Tanzania, Sri Lanka, Malawi, Ghana, Rwanda and Malaysia. The programme involved eighteen sessions with 40 technical papers presentations, 3 factory visits and 8 country paper presentations including India. The programme paved the way for export of packaging machinery in the food processing sector from India.

#### **4.3 Promoting high Technology Co-operation and Trade between India and CIS Countries**

During the year, the consultant (MITCON)

completed the project and facilitated signing of 9 MoUs between commercial Indian and CIS companies, besides 7 institutional MoUs. These MoUs related to commercialization of seismic sensors in India, technologies for image processing using artificial intelligence techniques, development of security devices, biometrics and allied technologies, manufacturing respiratory care equipments, waste management systems using plasma gasification technology, etc.

#### **4.4 Promoting high Technology Co-operation and Trade between India and African Countries**

In a project on promoting technology co-operation and trade between India and African countries, jointly funded by DSIR and Commerce Indian companies have signed more than 25 MOUs with parties in Nigeria, Tanzania, Zimbabwe and Ghana for manufacturing a range of products in the respective countries. The items covered by these MoUs include welding electrodes, electrical control panels, car tracking systems, transformers & UPS, pharmaceutical formulations, brass padlocks, plywood, glazed wall tiles and vitreous floor tiles, auto-components, synthetic resins, paints & chemicals, detergents and packaging of detergents, fly ash bricks, cottonseed oil, stone processing machinery, juices, paper and boards from banana waste, PVC pipes, PET bottles etc.

#### **4.5 Compendium on Technology Exports**

The DSIR has been bringing out a Compendium on Technology Exports in association with IIFT. The eighth volume of the Compendium containing data for the period 2002-2007 was brought out during the year. It contains data of 372 organizations giving contact details, technology status, areas of operation, sales turnover, exports etc.

#### **4.6 Technology Export Development Organisation (TEDO)**

A project on "Capability Building to Enhance Export Competitiveness & Facilitating Market

## DSIR Annual Report 2008-2009

Access for Indian Technologies and Technology Intensive Products/Services”, jointly executed by Centre for Promotion of Imports from Developing Countries (CBI), The Netherlands and CII, aims at capability building for enhancing the export competitiveness and global market reach of SME's in six identified sectors, viz. Auto Components, Tools & Dies, Casting and Forgings, Process Plant and Machinery, IT Enabled Engineering Services and Agro / Food Processing. The output expected from the project is 30 trained consultants in the chosen sectors and 120 trained SMEs with capability to export to the EU and other markets. The 6 weeks training programme of the consultants, spread over 6 months was completed and the consultants worked with 21 Carrier/Pilot companies to develop their capability in Export Market. Carrying on, the consultants completed the export audit of second batch of 44 companies.

### 4.7 Centre for International Trade in Technology (CITT)

The main objectives of the Centre for International Trade in Technology (CITT) in IIFT, New Delhi are: to sensitize policy makers regarding the importance of technology trade and the need for establishing an enabling and proactive policy regime; to support the corporate sector by providing information regarding relevant global commercial opportunities and market potential in priority markets; and to develop a cadre of experts and trainers to provide specialized training to the industry and policy makers. The following programmes were organized by the Centre at IIFT. A Programme on International Marketing of Technology and Technology Intensive Products, particularly for the Electrical Equipment and Components Industry on 23-24 April 2008 which provided a platform for intensive interactions between key Indian industries in the electrical equipment and components sector and representatives from MNCs who are sourcing products and services from India and other experts with international experience and opened up possibilities of technology transfer and trade. Lead faculty in

the programme was Mr. Moti Blau, Managing Director, Proxy Marketing Solutions Ltd., Israel. A study on technology branding of SMEs was undertaken which highlighted the preparedness of branding in respect of auto-components and textile sectors. A Programme on Enhancing Technology Sourcing Capabilities for Export Competitiveness in Packaging Industry was organized on 14-16 October 2008. A Workshop on Capacity Building in Technology Sourcing for Enhancing Export Competitiveness in Processed Foods Industry was organized on 24 October 2008. Proceedings/reports of all these activities have been prepared.

### 4.8 DSIR/CSIR Tableau for participation in the Republic Day Parade, 2009

A conceptual design of tableau was developed by inviting inputs from CSIR young scientists, ten leading advertising agencies of the country and CSIR empanelled agencies during July, 2008. In addition, several meetings of the DSIR/CSIR image committee were held to evolve a tableau design. Finally based on all inputs received, a design was developed through CSIR empanelled agency and that same was submitted to Ministry of Defence in August, 2008. A series of meetings were held at Ministry of Defence between August and October, 2008, based on which modifications were done in the tableau and finally a 3-D model along with music was presented to Ministry of Defence for approval. However, only 22 proposals out of approximately 70 odd proposals were short-listed by the Ministry of Defence, including 6 from the Ministries. DSIR tableau was unfortunately, not among the 6 short-listed tableaus selected for the Republic Day Parade 2009.

### 4.9 ITM Expo 2009: 2<sup>nd</sup> Innovative Technologies for Manufacturing Expo & Conference; March 5-7, 2009, World Trade Centre, Mumbai

The expo & conference was organized by All India Association of Industries (AIAI) jointly

with World Trade Centre, Mumbai at Expo Centre, Arcade, World Trade Centre, Mumbai. Around 60 exhibitors showcased innovations / technologies developed by them in a total exhibition area of 2250 sq. metres. The foreign exhibitors were from countries such as Romania, United Arab Emirates, Spain, Korea, Qatar and Taiwan. DSIR pavilion was set up in an area of 100 sq. mtrs. where DSIR along with its constituent organizations viz. CSIR & CDC and PSUs - CEL and NRDC projected a number of innovative technologies for manufacturing. Two local TePP innovators were also accommodated in the DSIR pavilion. Other prominent Indian exhibitors were Dighi Port Ltd., Essar Group, EXIM Bank, Godrej Agrovvet Ltd., National Innovation Foundation, National Small Industries Corporation, IIT Bombay, Jain Irrigation, Maharashtra Industrial Development Corporation, The Energy Research Institute etc. The participating organizations displayed their technological capabilities through models, prototypes, machineries, products and samples. The expo was visited by around 1000 business visitors. During the exhibition - Innovation Conference was also organized with theme session on 'Nurturing Innovations' and business session on 'Innovation Perspectives'. Innovation awards for excellence in innovations in agricultural, environment, energy, and security

sectors were also awarded to participating organizations.

#### **4.10 Exhibition-cum-Fairs on Rural Technologies**

Ministry of Science and Technology and Ministry of Earth Sciences have been driving the scientific and technological pursuit in the country and have provided catalytic support for development of many innovative products that have rural applications and impact the lives of the common man. With a view to share this knowledge with the rural masses and encourage them to adopt these technologies, that go a long way in reducing their drudgery and improving their quality of life, rural technology exhibitions were organized at Amethi (UP) and Deoghar (Ranchi) two years ago. Encouraged by the response of previous exhibitions, it was proposed to organize two more exhibitions at Dausa (Rajasthan) and Fatehabad (Haryana) during March-April, 2009. These exhibitions of 5 days duration each and are expected to mobilize around 500 visitors everyday, which shall include rural people, small entrepreneurs and innovators from all walks of life. The tender for organizing the exhibitions was finalized during the year and subsequently, departmental approval was obtained.