

II - D. INTERNATIONAL TECHNOLOGY TRANSFER PROGRAMME

1. OBJECTIVES

The main objective of International Technology Transfer Programme (ITTP) is to promote international technology transfer and trade with India as the focus.

The detailed objectives of the programme are the following:

- 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

2. PROJECTS / ACTIVITIES

Details of important projects/activities that were completed or were in progress during

the year under report are given in the following paragraphs :

2.1 INDIATECH 2005 (9th Technology Trade Pavilion) at India International Trade Fair, New Delhi, November 14-27, 2005

The objective of the Technology Trade Pavilion is to promote display and dissemination of information relating to technological capabilities, high value added products and technologies of companies and organisations including R&D laboratories, academic institutions, product design institutions, consultants etc. The Technology Trade Pavilion 2005 was setup jointly by DSIR and India Trade Promotion Organisation (ITPO) for the ninth time in succession since 1997. The space of 1000 sq.m. reserved for the Technology Trade Pavilion was offered free to R&D laboratories/institutions and other small and medium scale enterprises engaged in technology intensive business.

Around 45 organisations, both from public and private sectors including national R&D laboratories participated in the Pavilion. These included Reliance (R&D), Technov & M Systems, Scientech Technologies, SAR Silicon Systems, Ashirvad Pipes, CSIR, TEDO (CII), NRDC, CEL, CDC, Nuclear Power Corporation, DBT, S.K. Dynamics, National Productivity Council, NCCBM, Mecpro Heavy Engineering, Coral Industries, National Council for Cement and Building Materials, Dip Craft Industries, National Productivity Council, HEG Ltd., Gas Lab Asia etc. Technological capabilities were displayed through models, prototypes, interactive computer based displays, charts, machinery/product samples, etc. Awards for Technology Innovation and Best Display

were also announced. Technology Innovation Awards were bagged by Reliance (Gold), HEG Limited (Silver) and Gas Lab Asia (Bronze). Special award was given to Shri Ahimsa Army Mana Kalyan Jeev Daya Charitable Trust. Best Display Awards were bagged by Coral Industries (Gold), CSIR (Silver) and National Productivity Council (Bronze). Special award was given to CEL. The Pavilion helped in promoting one-to-one interactions and business negotiations between the participating organizations generated many business enquires, besides creating awareness about India's technological capabilities.

2.2 Technology Export Development Organisation

The main objective of the Technology Export Development Organisation (TEDO) - a Cell jointly setup jointly by DSIR and CII is to promote and support technology and technology intensive exports through collaborative efforts of government, industry, research & academic institutions, financial institutions and other export promotion agencies. In the second phase during 2005-07, TEDO is focusing on identification of around 100 companies in sectors such as process plant and machinery, tooling, pharmaceuticals etc. with a view to promote their technology related export endeavours. Profiles of these companies, highlighting the exportable technologies, projects and hi-tech products were prepared. A training programme on export orientation for the process plant and tooling industry was held at Pune in November 2005. Programmes on IT applications in manufacturing were planned under TEDO. The TEDO website was being re-designed and a virtual exhibition was planned to be hosted on the website.

2.3 Centre for International Trade in Technology

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. During the second phase i.e. 2005-07, CITT has taken up research studies on "Foreign R&D Centres in India" and "Survival of Start-ups". Data from around 140 Foreign R&D Centres in India and around 100 start-up companies is being collected.

2.4 Promoting high Technology Cooperation and Trade between India and CIS Countries

The objectives of the project are: to identify specific Indian suppliers of technologies, projects and high tech products; to identify specific collaborating agencies and business partners in the CIS region; and to facilitate one-to-one interaction, signing of MoUs, etc. The target countries are Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine, Azerbaijan, Russian Federation, Belarus, Armenia, Moldova and Georgia. The project is being funded jointly by DSIR and Department of Commerce under their Focus CIS Programme and MAI scheme. During the year, the consultant (MITCON) executing the project participated in an exhibition in Tashkent in September 2005 and a buyer-seller meet in Russia in November 2005. Under the project, it is planned to sign 6 MoUs between Indian and CIS parties on technology related projects.

2.5 Technology Trade Facilitation Centre at National Research Development Corporation (NRDC)

A Technology Trade Facilitation Centre was setup at NRDC in July 2003 with the support of DSIR. The Centre is a proactive approach to catalyze technology intensive and high value added exports from Indian industry/R&D establishments and is expected to provide an exposure to small & medium enterprises (willing to export their high tech products and processes) to look at international customers and foreign market requirements. The following criteria are used for selection of companies:

- Any company that is manufacturing a hi-tech product / equipment / machinery which is being exported or has export potential.
- Any company that has commercialized a technology and is willing to license / transfer it, within the country or abroad.
- Any organisation, which can offer a complete technology package or a technology project on a turnkey basis.

The Centre has so far provided a platform to 35 SMEs for showcasing their R&D and technological capabilities. The centre organized a one-day awareness programme on “Mechanisms for Export of Technologies and High-Tech products” in June 2005 in association with Small Industries Service Institute (SISI), Delhi which was attended by around 80 participants. The Centre also sponsored the participation of three companies in an Industrial Fair in Vietnam in October 2005.

An MOU was signed between an Indian company Coral Telecom Ltd. and a Vietnamese company. TTFC catalyzed the export of a soaps and detergent making plant

valued at US \$ 45,000, by an Indian company to Madagascar. Visits of a number of foreign delegations such as those from Venezuela, Namibia, Ghana and Guinea Bissau to TTFC were arranged.

2.6 Design Clinics-cum-Awareness Programmes – NID

The objectives of the Programmes were: to develop understanding of the design process in SMEs so as to enable them to utilize design as a strategic business tool; to enable participants to evolve their own strategies for undertaking industrial design activities; and to provide necessary design support for product design and development so as to enable SMEs to face the challenges of the fiercely competitive markets. The methodology followed was a 5-day Programme, to be conducted in two phases. During Phase I (first 3 days), the participants were exposed to ‘Design Basics’ and ‘Case Studies’ through seminars/lectures, presentations by NID faculty and practising professional designers. At the end of Phase I, the participants returned to their work place to put into practice the learnings from Phase I. During Phase II (last 2 days after 2 weeks break), the participants presented their findings and discussed their specific design solutions and problems. They were guided by NID faculty and professional designers for integrating design into their operations.

NID, Ahmedabad organized a Clinic-cum-Awareness Programme for Design Intervention in Industry Clusters at Aurangabad (Auto and Electrical Appliances cluster) in July-August, 2005. The programme was attended by 30 participants from industry. Three other programmes are planned at Coimbatore / Ahmedabad (Textile Machinery), Khurja (Ceramic Pottery) and Delhi (Furniture).

2.7 Third International Design Awareness-cum-Training Programme on Strategic Design Intervention for Developing Economies

The above programme was organized by National Institute of Design (NID), Ahmedabad during 1-7 February 2006, with the support of DSIR. The basic objective of the programme was to project India as the outsourcing destination for industrial and product design services. The main contents of the programme were: Designing for Global Opportunities, Creative Problem Solving Methodologies, Grass-root Level Innovation and Design, Design for Business, Proven Design Case Studies, specifically from SME sector, Design for Development & Design for Masses and User Led Design. The resource persons for the programme were drawn from NID faculty as well as practising design entrepreneurs, experts and consultants. The programme was attended by around 25 foreign participants. The programme unfolded opportunities for design collaborations between Indian agencies and foreign participants.

2.8 Second International Awareness-cum-Training Programme on Packaging Conversion Technologies

The main objectives of this programme were: to share and exchange information on the packaging conversion technologies and related machinery in use in the participating countries; 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 conversion technology.

The programme deliberated on the entire value chain of package production viz.

designing, pre-press, printing, converting, finishing and decoration. Technical sessions covered the conversion technologies used by Corrugated Box Manufacturers, Paper and Board Converters, Rigid and Semi-Rigid Plastics Converters, Flexible Packaging Converters, Metal Converters, lined carton system manufacturers, flexible bulks and retail pack manufacturers. Flexible packaging technology, including gravure and flexo printing presses as well as co-extrusion and lamination technology were also discussed in the programme. The factory visits provided an opportunity to the delegates to witness the modern machinery and processes being used by the packaging units here.

The programme was attended by seventeen international and national participants, including Thailand, Iraq, Ghana, Italy, Tanzania and Malawi. Faculty was drawn from SIES School of Packaging as well as leading Indian companies.

2.9 Workshops on Enhancing Export Competitiveness of Small and Medium Enterprises through IPR Awareness – WITT

Two workshops were planned under the project with a view to sensitize the small and medium industry about the technical information contained in the Patents domain and to encourage them to adopt the same in their operations. Eventually, technology up-gradation is expected to help in enhancing the export competitiveness of the products manufactured by the units. The locations and sectors being explored for the two workshops are Ludhiana - Auto Components, Agra - Leather Goods/Footwear, Vadodara - Bulk Drugs and Kullu & Sirmaur - Food Processing.

2.10 Export Capability Assessment of Indian Tooling Industry

The objective of the survey was to study the export capabilities of the Indian Tooling Industry and to prepare a database, with a view to project India as a global tooling destination. The study involved a questionnaire based survey as well as a field based survey. Data collection was in progress during the year.

2.11 Compendium on Technology Exports – An Illustrative Compilation of Exported and Exportable Technologies from India

The annual compendium brought out in collaboration with Indian Institute of Foreign Trade (IIFT), New Delhi, contains information on technologies actually exported as well as technologies having potential for exports. The compendium analyzes the data on technology exports and exportable technologies and highlights export trends in terms of sectors, destinations etc. The compendium is a compilation of profiles with each profile/containing details such as basic company information, details of exportable technologies available with the company, preferred mode of technology transfer, preferred export destinations etc. There is a separate section giving details of technologies actually exported. The compendium serves as a ready source of reference to foreign customers who are looking for technology business partners from India. The target audience for the compendium includes

foreign embassies / missions in India, Indian embassies / missions abroad, foreign business delegations visiting India, Indian delegations going abroad, exporting organisations and consultancy companies.

The current phase of the project envisages to bring out three issues of the compendium over a three year period. Data collection in respect of the first issue of the current phase was in progress during the year. A searchable web-enabled data base is also proposed to be brought out.

2.12 Profiles of Exportable Technologies from SMEs – State-wise

The objective of the project is to compile information on exportable technologies and projects from SMEs and disseminate it through internet, documentation, conferences, etc. with a view to enhance international technology trade. The compilation of profiles of exportable technologies and projects from SMEs in the State of Maharashtra has been completed through MITCON Consultancy Services Ltd., Pune and the exercise in respect of Delhi and NCR has been completed through M/s NAFEN, New Delhi. Projects on compilation of Exportable Technologies from SMEs in Andhra Pradesh & Karnataka (through APITCO), Punjab, Haryana, HP & J&K (through NAFEN), Gujarat & Rajasthan (through GITCO) and Tamilnadu & Kerala (through Pixel Networks) were in progress during the year. A web enabled searchable database of profiles is also planned under the project.