



## II-D. International Technology Transfer Programme

### 1. PREAMBLE

International Technology Transfer Programme (ITTP) has its genesis in Transfer and Trading in Technology (TATT) scheme, which was formulated in the seventh 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. OBJECTIVE

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 and services available with Indian industry and R&D establishments;
- To create awareness about Indian 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 Technology Cooperation and Trade between Indian and foreign industrial units.

### 3. PROJECTS/ACTIVITIES

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

#### 3.1 *Compendium on Technology Exports*

The DSIR has been bringing out a Compendium on Technology Exports since 1994 with the aim of making available detailed data on technology intensive exports by Indian industries and establishments. Eight volumes of the Compendium have been published so far and the ninth volume is the latest in the series covering information on technology intensive exports by Indian industry and establishments from the year 2000-01 to 2007-08. The volume contains general information on world exports of technology, policies and initiatives for promoting technology intensive exports and other issues related with technology exports like mergers and acquisitions, importance of regional/foreign trade agreements and impact of financial meltdown. This volume of the compendium gives a list of 654 companies who responded to nine surveys conducted by DSIR/IIFT over the period



1994-2009. Out of these, export data pertaining to 581 companies, which continued to respond beyond the year 2000 have been given. The remaining 73 companies have only been listed as these did not respond subsequently beyond the year 2000. In the survey conducted later, 367 organisations have reported that technology intensive exports increased from Rs. 38750 crore in 2002-03 to Rs. 185678 crore in 2007-08 registering a substantial increase of nearly 380 per cent. Classifying technology intensive exports into *low technology exports* - meaning export of well-diffused technologies largely embodied in capital equipment, with low R&D and skill requirements and low economies of scale, *medium technology exports* - meaning export of technologies which are complex but not fast-changing technologies, with moderate levels of R&D but advanced engineering and design skills and large scale of production and *high technology exports* - meaning export of technologies with advanced manufacturing capabilities, large R&D investments, advanced technology infrastructures and close interactions between firms, universities and research institutions. It was observed that low technology exports increased approximately seven times while medium and high technology exports increased more than three times during the period 2002-03 to 2007-08. Further, classifying technology intensive exports from the 367 companies into exports of capital goods, turnkey projects, computer software and hardware, know-how, consultancy services and products, it is observed that export of products constitute 87 per cent of total exports during 2007-08. The only other sector having a significant share is turnkey projects at 8 per cent and contribution of other sectors is within 5 per cent. Analysing the impact of foreign collaborations on technology intensive exports, it is observed that among the 367 companies covered, 180 reported having foreign collaborations. While exports of these 180 companies registered an increase of 19.16 per cent from 2006-07 to 2007-08, exports of 187 companies without foreign collaborations increased by 25.21 per cent over the same period signifying that foreign collaborations did not have a positive impact on technology intensive exports. It is believed that the compendium will serve as a useful reference for formulation of policies for technology intensive exports from the country.

### 3.2 Technology Export Development Organization (TEDO)

A project on "Capability Building to Enhance Export Competitiveness and Facilitating Market Access for Indian Technologies and Technology Intensive Products/Services" was continued to be supported, which was jointly executed by Centre for Promotion of Imports from Developing Countries (CBI), The Netherlands and Confederation of Indian Industry (CII). The project aims at capability building for enhancing the export competitiveness and global market reach of SME's in six industrial sectors, viz. Auto Components, Tools and Dies, Casting and Forgings, Process Plant and Machinery, IT Enabled Engineering Services and Agro/Food Processing. The output expected from the project is around 30 consultants in the chosen sectors, trained to advise SMEs for exports and 120 SME's with capability to export to the EU and other markets. Under the project, 27 Indian professional consultants (TEDO Consultants) and 6 CII personnel (TEDO Coordinators) were given training on Export Marketing and Management (EMM) by CBI experts on select modules under capability building, such as Market Access, Company Analysis and Market Entry Strategy. The consultants also got an opportunity to visit industries in the chosen sectors of specialization during a one week training module at Rotterdam (The Netherlands) providing an exposure to the European industry and market. A batch of 21 SMEs were audited and were identified as TEDO carrier companies. TEDO consultants, as part of the training were engaged with these 21 SMEs in capability building activities that included export audit, identifying gaps, handholding to fill in the gaps, and developing an EU Market Entry Strategy (MES) to become self sustainable export capable companies. In Batch-I, 44 SMEs/companies were enrolled for capability building activities. The 21 carrier companies and 44 batch I companies are now ready for access to the EU market. Participation of these SMEs in select International Trade Fairs viz. Seoul Food Fair, South Korea 2010, Automechanika Frankfurt, Germany 2010, Euroguss 2010/New Cast 2010, Euro Mould 2010/Hannover 2010, Achema 2010 and Euro Mould/MIDEST (France) 2010 have been planned. Buyer-Seller meets have also been planned to forge business ties with these companies. Also, information is being gathered from these SMEs to

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develop their technology/product profiles. It is also envisaged to release advertisements for each sector in international journals soliciting business partners for these SMEs. Activities for selection of the last batch of 55 SMEs have been started and so far 35 companies have been short listed for capability building activities. All these activities of TEDO have been well appreciated by SMEs and the exercise of capability building has helped them in self-introspection of their organizations, preparation and redefining their business plans, acquiring a better understanding of the competition faced in foreign and domestic markets, reducing rejection levels, reduces product development time and efficient and effective resource planning. TEDO team has been continuously working with CBI Market Research and IT Experts on developing TEDO website ([www.tedo.biz](http://www.tedo.biz)) into a world-class market information (MI) portal, focused on the EU market. TEDO website would not only provide SMEs information about the EU market but will also support SMEs in virtual exhibition of their products. This project is also aimed at building capacities in CII/TEDO so that it can assume the role of CBI in India, since CBI is in the process of phasing out of India.

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

The main objectives of the Centre for International Trade in Technology (CITT) in Indian Institute of Foreign Trade, New Delhi set up with the support of DSIR 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 technology trade experts and trainers to provide

specialized training to the industry and policy makers. A research study on 'Technology Branding in SMEs' was completed during the year. The study explored the issues, challenges and the road ahead for branding in technology based SMEs. It explained the need and approach to branding and suggested a conceptual framework that will help SMEs to adopt the process of branding. As part of this study, a pilot study was done across five sectors, viz. auto components, textiles, electrical/electronics, software and hardware. It was found that two sectors viz. auto components and textiles lend themselves most appropriately to branding. Therefore, these were selected for a detailed study. The branding activities of SMEs were explained to be falling in one of the four quadrants, viz. Proactive Branding, Corporate/Technology Branding, Product/Process Branding and Cluster Branding. Companies following proactive or cluster branding were categorized under minimalistic type branding, companies following corporate/technology branding were categorized under embryonic type branding and companies following product/process branding were categorized under integrated type branding (fig 15). In the Auto sector, 112 respondent companies spread over Delhi and NCR, Pune and Chennai were studied. In the textiles sector, 110 respondent companies spread over Delhi and NCR, Surat and Coimbatore were studied. Analysis was done about industry market positioning and the readiness for branding. After analyzing the data as per the above classification, it was inferred that most of the SMEs are today in the proactive branding stage where the degree of branding indispensability is low and the degree of readiness is also very low (fig 16). Due to major clusterization in the industry, most SMEs prefer for cluster branding which is not useful in the long run. The study suggested that they should work simultaneously towards Corporate/Technology branding and finally to Product/Process branding.

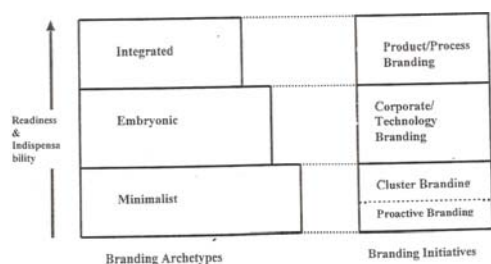


Fig 15: 'Archetypes-Initiatives Fit' Model

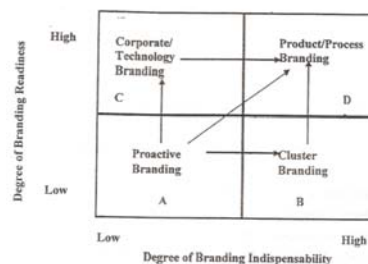


Fig 16: 'Readiness - Initiatives Matrix'