# **Technology Management Programme**

The Technology Management (TM) Programme of the DSIR works in close association with industry, industry associations, research organizations, academic institutes, State level agencies and Govt. organizations, consultancy organizations and other Government Departments towards its objective of enhancing technology management capability in the country.

### Mission

The mission of the TM Division is to enhance knowledge and skills in the efficient transfer and management of technology.

### Multi pronged measures initiated to

- facilitate awareness building
- generate a knowledge base in technology issues
- offer specialized training for capability enhancement in technology management
- provide assistance in building technology strengths
- · help in identification of and developing measures to ameliorate technology weaknesses
- categorize opportunities and generate awareness of threats in respect of technologies that are specific to the nation.

#### Origin

The Division grew out of its concern for identifying gaps in technology status, analyzing and compiling foreign collaboration approvals; during the days of its formation as the National Register of Foreign Collaborations. The mandate of the Division was later expanded to include aspects of management of technology. It has steadily enhanced its operations over the years to meet changing demands in tune with the dynamic environment for innovation.

# Why Technology Management

Nations world over have realized that having access to or possessing the best technology in itself does not enable one to compete successfully.

Globally, several phenomena have been taking place: innovation has gained focus, research has become of far greater consequence, technology life cycles have become much shorter, products have considerable variety and far shorter life spans, new product development has become paramount, rapid generation and commercialization of new technologies has become necessary.

Moreover, critical technologies are not readily available from any source. Research programmes are not only very intensive but also very risky; and collaboration in research has been the pragmatic solution in some cases. Many countries are opting to establish research bases in other countries. Some kinds of technology development are of such a large magnitude that resources of any single nation in terms of finance or manpower are not sufficient to deal with the situation.

At the organizational level, technology is intertwined with every function, be it marketing or finance or services, not only manufacturing or research. Besides, intellectual property rights have gained immense significance and it has become crucial to understand and handle the various intricacies associated with these property rights and the intangible wealth linked to the technology one deals with.

In this context, the need is to understand both business and technology, and the ability to manage the various aspects concerned with technology has become very important.

Thus, technological prowess is alone not sufficient to combat challenges effectively in the current competitive scenario; rather the ability to manage these skills is equally important. Technology Management is the key to performance in every sphere of activity in the current milieu; be it finance or marketing or manufacturing or services.

#### Activities

The Division has initiated a number of activities to facilitate industry and consultancy organizations, academic and research institutions in identifying, developing and learning tools and techniques to effectively combat technology change and pressure in the constantly evolving and highly competitive business climate that is the order of the day.

The activities undertaken have been primed towards:

- Providing assistance in efficient transfer of technology, through information in respect of foreign collaborations approved and analysis of such approvals as well as focused studies;
- Enhancing knowledge base in respect of technologies specific to the nation, including rural based technologies and region/sector specific technologies by undertaking analytical studies, technology status and development studies;

- Providing information to industry, Government departments and researchers through targeted research studies and policy research;
- Promoting industry-institute interaction by setting up resource centers on technology management in appropriate locations;
- Enhancing academic interest and contribution through active collaborations and memorandums of understanding with academic institutes;
- Initiating State level agencies and research organizations to take up activities in the realm of Technology Management;
- Policy level research;
- Information dissemination on Technology Management related aspects through newsletters, portals, manuals, and other forms;
- Promoting an understanding of Technology Management in the Indian scenario through case studies of manufacturing and research organizations in the country, distinguished technologists lecture series etc, and
- Conducting tailor-made management development progarmmes, awareness programmes, focused training courses, seminars and conferences on specific technology management issues and providing guidance to trainers as well.

#### Achievements

The Division has been able to sensitize and create awareness of important technology management issues in a number of organizations across the country. Some of the significant targets attained:

- Technology gaps and trends in respect of 180 products/ processes have been identified and measures suggested for further development.
- More than 40 case studies and other teaching aids prepared in emerging areas of TM, are being put for pedagogic use.
- Intense projects spanning several activities have been undertaken in association with 5 geographically distributed institutions across the country.
- More than 150 training programmes on emerging areas of technology transfer, knowledge, R&D and innovation management including IPR have been organized.
- More than 8000 persons have been trained in the above programmes.
- Around 20 need identification studies have been carried out including the rural sector and North East region; covering Medicinal & Aromatic plants, Minor Forest Produce, Vegetable dyes, cashew etc.
- 4 Centres have been launched to facilitate industry-institute interaction in different locations.
- Newsletters catering to topical TM needs are being brought out by 5 different organizations.
- 5 research studies on TM benefiting industry and academia have been completed.
- 3 portals on Technology management have been launched.

# List of Projects Supported [06 SEP 10]

Click Here for a List of Major Projects Completed / Programmes Held as on April 1, 2010.

#### **Beneficiaries**

Major beneficiaries include: industry executives, researchers, academicians, students and trainers, innovators and entrepreneurs, consultants from: Industry and industry associations, Academic institutes, Research organizations, Consultancy organizations, State Level Bodies, International organizations and Other Government Departments; apart from the Small-scale sector in particular. In general, society has benefited at large as an outcome of the programme, with better awareness and appreciation of technology related issues.

#### **Technology Issues**

The various technology issues that are addressed by the programme mainly relate to the following at the global, national, regional or organizational level:

- · Technology Status
- Technology Upgradation
- Technology Trends
- Technology Audit
- Technology Policy
- Technology Strategy

- Integration of Corporate Technology Strategy with Business Strategy
- Make or Buy decisions in Technology
- Management of Technology Transfer
- Management of R&D
- Core Competence
- Technology Marketing
- Finance for Technology
- Creativity and Innovation
- Organizing for Technology
- Strategic Alliances for Technology
- Technology Pricing
- Protecting Technology and Intellectual Property Rights
- Identification and Valuation of Intangibles
- Knowledge Management

# Proposals for support

Proposals from interested organizations seeking to undertake work in the area of technology management are welcome:

- *Studies* on technology and innovation management (issues listed above), technology status of potential growth oriented industries in specific regions, issues relating to technology transfer, technology gap and need identification of specific product/process industries, different facets of R&D, technology growth, policy and development
- Technology Audit Exercises at the organizational level
- Case studies specific to different organizations or sectors
- Training Interaction meets, Intensive Workshops, Seminars and awareness programmes, Students Paper Contests
- Industry/academic research projects
- Research tools and Pedagogic aids
- Policy research
- Audio Visuals
- Centres for Technology and Innovation Management

# **Guidelines and Application Format**

Download Guidelines and Application Format as PDF.

# Project selection Project monitoring

Project proposals received in the Division, are screened for completeness and forwarded for peer review to selected organizations/experts for their recommendations/views. Thereafter, these are evaluated by a Technical Appraisal Committee (TAC) set up in the Department for the purpose and projects are granted based on the recommendations of this committee and financial concurrence if required. The Constitution of the TAC has the approval of Secretary, DSIR The members of the TAC include subject experts and representatives of different concerned Government departments, Industries, Academic/ consultancy/ research organizations.

Once assigned, the progress of all ongoing projects are monitored by Project Review Committee meetings that are held from time to time to evaluate the progress, take stock of the situation, suggest corrective measures and steer the project team towards meeting set objectives. Evaluation Committee meetings, where the outputs of the project are finally assessed, are held before each output is finalized. The members of the Project Review Committee and the Evaluation Committee are subject experts, or representatives from agencies concerned with the specific issues taken up.

# For additional information, Contact:

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