TPDU

**Technology Promotion Development and Utilization Programme** 

# TMP

# Technology Management Programme

Guidelines





Government of India

Department of Scientific &
Industrial Research

Ministry of Science & Technology
Technology Bhavan, New Mehrauli Road
New Delhi-110 016.

### TECHNOLOGY MANAGEMENT PROGRAMME

### **GUIDELINES**

December, 2005



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(MINISTRY OF SCIENCE & TECHNOLOGY)
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### **CONTENTS**

S.No.	Title	Page No		
1.	Technology Management Programme	1		
2.	Objective, Scope and Coverage / Contents of the Analytical, Technology Status and Development Studies for a particular Product / Process / Sector of Industry, as the case may be	5		
3.	Objective, Scope, Coverage / Contents of Targeted Research Studies on Specific Issues in Technology Transfer, Technology and Innovation Management			
4.	Objective, Scope, Coverage / Contents of Case Studies covering Technology Management Aspects	7		
5.	Objective, Scope, Coverage / Contents of Studies on Technology and Innovation Management Issues	7		
6.	Centre for Technology and Innovation Management	8		
An	nexures			
Annexure-I	Guiding Format for Submitting Proposals for Setting up of Centre for Technology and Innovation Management	9		
Annexure-II	Format for Submitting Proposals for Organising Workshops / Seminars / Interaction Meets / Training Programmes under Technology Management Programme	11		
Annexure-III	Format for Submitting Proposals for Carrying out Technology Status, Technology Development, Analytical, Research Studies and Case Studies	12		
Annexure-IV	Terms and Conditions for Carrying out Studies under Technology Management Programme	13		
Annexure-V	Terms and Conditions Governing the Setting up and Implementation of Centre for Technology & Innovation Management	n 14		
Annexure-VI	Format of the Bond	16		
Annexure-VII	Proforma for Submission of Monthly Progress Report	17		
Annexure-VIII	Format of the Acceptance Letter	17		
Annexure-IX	Format for Statement of Expenditure	18		
Annexure-X	Format for Utilisation Certificate	20		
Annexure-XI	Other General Terms and Conditions for Implementation of Projects / Programmes	22		

### DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH

### 1. TECHNOLOGY MANAGEMENT PROGRAMME

### 1.1 Why Technology Management ? - An Introduction

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 process 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.

### 1.2 Objective

To provide technical inputs and support mechanisms for facilitating efficient transfer and management of technology.

#### 1.3 Mission

To enhance knowledge and skills in the efficient transfer and management of technology so that different spheres of society - industry, academic and research institutions, consultants and consultancy organizations, executives, faculty, students, entrepreneurs, small and medium enterprises are benefited.

#### 1.4 Promotional Measures

The programmes / activities under the Technology Management Programme are directed towards catalyzing national efforts for the promotion and effective utilization of emerging technology management methodologies and tools, bringing out better industry institutes interlinkages through networking of industrial needs with academic and R&D inputs. The multi-pronged promotional measures are to:

- o facilitate awareness building
- o generate a knowledge base in technology issues

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

### 1.5 Technology Issues to be addressed

Under the Technology Management Programme, mainly the following technology issues are addressed at global, national, regional and organizational level:

- Technology Strategy
- Integration of corporate Technology Strategy with Business Strategy
- Make or Buy decisions in Technology
- Management of Technology acquisition
- 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

### 1.6 Activities

A number of activities have been initiated 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 major activities under the "Technology Management Programme" are primed towards:

### i) Compilation and Analysis of Data on Foreign Collaboration Approvals:

Aims at 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.

#### ii) Analytical, Technology Status and Development Studies:

These studies aim at enhancing knowledge base and in suggesting measures to mitigate problems and enhance efficiency in respect of technologies specific to the nation, including rural based technologies and region / sector specific technologies and include analytical studies, technology status and development studies;

### iii) Studies on Technology and Innovation Management Issues:

These studies aim at harnessing value from knowledge leading to further knowledge creation on Technology Transfer issues and Technology Upgradation measures and in other technology areas.

### iv) Targeted Research Studies on Specific Issues in Technology Transfer, Technology & Innovation Management:

These are aimed at developing an objective understanding of complex situations demanding a focused direction resulting in comprehensive information, data collection and in-depth analysis to enable analytical decision making.

### v) <u>Case Studies covering Technology Management Aspects:</u>

The objective is to generate learning from best practices and from experiences of Indian corporates and research organizations for pedagogic use, and for use of consultants, researchers and industry executives.

### vi) Resource Centres on Technology Management:

Aims at promoting industry-institute interaction on technology management in appropriate locations across the country.

### vii) Information Dissemination:

Aims at widely disseminating information on Technology Management related aspects through newsletters, portals, manuals, and other forms;

### viii) Training, Interaction Meets, Seminars/Management Development Programmes:

Aims at conducting tailor-made management development programmes, awareness programmes, focused training courses, seminars and conferences on specific technology management issues and providing guidance to trainers as well.

### ix) Student Paper Contest

Aims at evolving interest in TM aspects and nurturing youth talent.

### x) Pedagogic Tools

Aims at focused teaching of TM concepts.

### xi) <u>Technology Management Audit Exercises</u>

These are targeted TM Audit exercises in different sectors and organizations.

#### 1.7 Achievements

Some of the significant achievements are :

- Technology gaps and trends in respect of nearly 200 products/ processes have been identified and measures suggested for further development.
- More than 30 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 different institutions across the country.
- More than 100 training programmes on emerging areas of technology transfer, knowledge, R&D and innovation management including IPR have been organized.
- More than 5000 persons have been trained in the above programmes.
- Around 15 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.
- 2 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.
- 3 research studies on TM benefiting industry and academia have been completed.

### 1.8 Proposals invited for support

Proposals from interested organizations seeking to undertake activities / programmes in technology management are welcome. Proposals must broadly address the objective of the TM programme.

Both novel initiatives or those similar to any of the on-going activities like at 1.6 would be considered for support.

Brief scope of major activities / programmes are given in the following pages. The guidelines for submitting proposals, broad terms and conditions, etc. are given in Annexures-I to VIII.

### 1.9 Who can submit proposals:

Industry and Industry Associations, Consultancy organizations, Research institutions, Universities and Academic Institutes, State and Central Government or International bodies/Agencies.

### For additional information, contact:

Head

Technology Management Programme Department of Scientific & Industrial Research Technology Bhawan, New Mehrauli Road

New Delhi-110016

Telefax: (011) 2696 0098 (D) / 2656 7373 Extn 256

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# 2. OBJECTIVE, SCOPE AND COVERAGE / CONTENTS OF THE ANALYTICAL, TECHNOLOGY STATUS AND DEVELOPMENT STUDIES FOR A PARTICULAR PRODUCT / PROCESS / SECTOR OF INDUSTRY, AS THE CASE MAY BE

The specific objective, scope and coverage of such studies would depend on the desired focus. An indicative view has been mentioned below:

### **Objective**

To asses present status of technology, need of technology upgradation, potential for productivity enhancement and value addition, export potential of the products produced and status of import substitution.

### Scope

- i) Study the availability of raw materials, covering their quantitative and qualitative assessment, procurement, prices, nearest markets or sources.
- ii) Survey the existing units, identification of concentrated areas of the units, ownership of the units, scale of operation/production, present manpower and level of skills involved, size of the units in terms of cost involvement (Project cost, etc.), their technical financial and economic status, present market coverage, product pricing, marketing channel, willingness for expansion, modernization and diversification, constraints, required etc.
- iii) Benchmarking of the units in State / regional, national and international level in terms of their scale of production, technology product qualities, pricing and packaging, marketing, storage etc.
- iv) Study the procurement and storage trends of raw materials to optimize output with minimum input and wastage/spoilage. Steps to be taken in this respect.
- v) Identify level of obsolescence in existing technologies being practiced and requirement of modernization of technology, equipment, skills etc. for processing and production.
- vi) Study the requirement for infusion of appropriate technology, equipment and other inputs with their cost involvement.
- vii) Identify the extent of augmentation of related infrastructure conducive for development of these sectors.
- viii) Identify the areas possible to reduce drudgery, minimize physical risks and health hazards of workers.
- ix) Analyze the level of input required for (a) higher productivity (b) better quality (c) cost/price reduction of products.
- x) Suggest strategy for controlling parameters for achieving domestic and export markets like minimum economic volume of procurement, production, product quality, price, printing packaging of products, market distribution and coverage and adherence to the schedules.
- xi) Study availability of technologies, equipment etc. selection of appropriate technologies, equipment with salient features and their sources.
- xii) Suggest strategy for better management of technology and the units and also to keep them technologically updated on continuous basis.
- xiii) Identify technologies that need to be developed for the products/processes/sectors.

### Coverage

- i) Problems and prospects of the specified sectors associated in the various steps right from availability of raw materials to finished products.
- ii) Current level of technologies/mechanisms being used in these products/ processes/ sectors
- iii) Availability of newer technologies to be adopted and their salient features.
- iv) Level of equipment used and the suppliers of capital goods.
- v) Need for training of the manpower and advantage associated with it.
- vi) Value addition and maintenance of quality at various levels/steps
- vii) Interventions and inputs required and their cost involvement in different levels and steps.
- viii) Any other aspects/issues as considered appropriate.

# 3. OBJECTIVE, SCOPE, COVERAGE / CONTENTS OF TARGETED RESEARCH STUDIES ON SPECIFIC ISSUES IN TECHNOLOGY TRANSFER, TECHNOLOGY AND INNOVATION MANAGEMENT

The research studies on specific issues in Technology Transfer & Innovation Management may vary from case to case in several aspects, it may not be possible to standardize objective, scope of work, coverage/contents of these studies. An indicative view has been mentioned below:

### **Objective**

To study several aspects concerned with Management of Technology in different sectors important for economic development of the nation demanding focused direction.

### **Scope & Coverage**

- Review the literature on selected industries / product / cluster of industries in the context of technology transfer and technology innovation management issues.
- Identify key elements of strategy of technology management and technology transfer pursued by different countries in different industries / products / sectors to enhance the process of innovation management.
- Understand the dynamics of technology transfer and innovation management in selected areas to identify key success sectors.
- Evolve criteria for evaluating technology transfer and innovation management process in select industries/products/sectors, assess the availability, cost and quality of data for this purpose and pilot test the criteria using other country references.
- Evolve new paradigms of effective mechanism for technology transfer and innovation management in select industries/products/sectors.

#### **Deliverables**

- Detailed Problem/Opportunity structure on problem under study.
- > Detailed tables of key parameters studied / perceptions of professionals elicited as part of the study
- Identification and prioritization of key issues.
- Case studies of competitive countries with focus on issue under study
- Case studies of competitive firms
- Workshops for dissemination
- Website or portal

### 4. OBJECTIVE, SCOPE, COVERAGE/CONTENTS OF CASE STUDIES COVERING TECHNOLOGY MANAGEMENT ASPECTS

These are specific studies covering different sectors/processes generally for a particular manufacturing unit, R&D organization. The objectives/scope etc. may vary from case to case. An indicative approach is mentioned below:

### Objective

To study and analyze the process and the manner in which technology is managed in the Indian scenario.

### Scope of the Work/Coverage

Focus on any or a combination of the following aspects could be studied in depth

- Status of the industries
- Area of the operation
- Technology in use, its sourcing and manufacturing processes
- Technology innovations
- Technical collaboration and strategic alliances
- R&D efforts for development of new product
- Import substitution
- > Improvement of production process
- International technology and R&D scenario
- Technology Strategies; Innovation strategy
- Competitiveness
- Knowledge Management
- Intellectual Property Management; Management of Intangibles
- Marketing and HRD

### 5. OBJECTIVE, SCOPE, COVERAGE / CONTENTS OF STUDIES ON TECHNOLOGY AND INNOVATION MANAGEMENT ISSUES

### **Objective**

These are studies under taken in various areas of technology and innovation management. These are targeted at identified sectors that offer opportunity for growth. Specific studies addressing those issues that benefit small and medium enterprises, are also undertaken.

### Scope/Coverage

In these studies, generally the following issues are inter alia studied:

- Management of Technology & Innovation.
- Management of Emerging and Breakthrough Technologies
- Technological Foresight
- Social Aspects of Technology Change.
- Provision of support for Innovation in Small and Medium Firms.
- Critical Success Factors.
- Survey of Current Technology usage and management capabilities.
- Comparison against state of the art and best practices and Gap assessment.
- Development of Project Scope, Partnership framework and Modalities of Content Development, Review and Dissemination Process.
- > Technology Scanning, Forecasting and Assessment Models.
- Framework for Integration of Technology with Business Strategy.
- Technology Strategy planning.
- > Knowledge Management Processes and Tools.
- Cooperative Framework for Technology Development.
- Entrepreneurship and Innovation Models.
- Action Plan for Training and Dissemination to Industry and Policy makers.

### 6. CENTRE FOR TECHNOLOGY AND INNOVATION MANAGEMENT

### **Objective**

To continuously nurture technology development, innovation and growth by focusing on relevant technology management issues and networking with national / International organisations depending upon the specific interventions required

### Scope:

- To meet all facets of technology management requirements of the region.
- To undertake studies and disseminate knowledge on technology management.
- > To develop and act as a nodal center for technology management network.
- To bring about Industry-Institute interaction.

### **Activities**

- Research
- Cluster development studies
- Case Studies
- Scouting innovation
- Manpower Development
- Interface between Academia and Industries
- Data Generation
- Sharing of Knowledge
- Providing Solutions to Industries
- Preparation of Technology related Policy Studies
- Networking
- Other activities to meet general objectives of the centre

### **Essential Linkages**

The Centre would need to develop and nurture following linkages:

- Industrial Associations (Local, Sectoral, State Level Chambers of Commerce and Industry and National Institutions like CII)
- Government Agencies (Industries Department, Science and Technology Council/ Department, Small Scale Industries).
- Research Institutions (CSIR, ICMR, ICAR, DRDO, SIROs, S&T Departments)
- Resource Persons
- Academic Institutions
- International Professional Institutions

### **Networking with other TM Centres**

With the objective of synergizing efforts in similar centres across the country, the following activities need be encouraged:

- Sharing of Resources and Resource persons
- Periodical Meetings
- TM Journal
- Joint Events

### **Promotion/Publicity measures**

- Website / Portal
- Newsletter
- Advertisement
- Participation in Exhibitions
- Awareness generation through the effective means.

### GUIDING FORMAT FOR SUBMITTING PROPOSALS FOR SETTING UP OF CENTRE FOR TECHNOLOGY AND INNOVATION MANAGEMENT

1.	Title of the Centre		:	
2.	Name, Designation & address of the Chief Coordinator:		:	
		Telephone(s)	:	
		Fax(s)	:	
		E-Mail(s)	:	
		Mobile(s)	:	
3.		e & address of the propose iization	:	
4.	Detail	ls of the organization	:	
	i)	Year of establishment	:	
	ii)	No. of employees	:	
		Full time	:	
		Part time	:	
	iii)	No. of technically qualified		
		personnel employed (full time)	:	
	iv)	Annual turnover (past three years)		
		(Rs. in lakhs)	:	
	v)	Exports if any (Rs. in lakhs)		
		(if applicable)	:	
	vi)	Area of work/specialization	:	
	viii)	Services offered	:	
5.	carrie imple	otive, Scope, Activities to be and out, services to be rendered, mentation Methodology to be seed for the Centre	:	
6.	Durat	ion for setting up of the Centre	:	
7.	Indus	trial scenario of the region	:	
8.		, relevance and justification for g up of the Centre	:	
9.		led item-wise Budget Estimates dly to cover the following)	:	
	-	Capital cost	:	
	-	Manpower	:	
	-	Travel	:	
	-	Publications and newsletter	:	
	-	Development of tools, kits,		
		manuals, multi-media	:	
	<ul> <li>Knowledge dissemination,</li> </ul>			ANNEXURE-I Contd

seminars, workshops, training programmes, interaction meets, :

Any other activity

(The proposee organization will provide operative infrastructure including office space and utility services, etc.)

10. Networking and interactions or financial/ technical involvement of other relevant organisations in India and abroad

11. Expected outputs and benefits from the Centre

12. Any other information :

(Signature of the Head/Chief Executive

of the Institute / Organisation)
Name:
Designation:
Organization Seal:

Date: Place:

# FORMAT FOR SUBMITTING PROPOSALS FOR ORGANISING WORKSHOPS / SEMINARS / INTERACTION MEETS / TRAINING PROGRAMMES UNDER TECHNOLOGY MANAGEMENT PROGRAMME

1. Title of the Workshop/Seminar etc. 2. Name and address of the organization Telephone(s) Fax(s) E-Mail(s) Mobile(s) 3. Name of the organization Year of establishment i) ii) No. of employees Full time Part time iii) No. of technically qualified personnel employed (full time) iv) Annual turnover (past three years) (Rs. in lakhs) v) Exports if any (Rs. in lakhs) vi) Area of specialization viii) Services offered 4. Objective, Scope of Workshop/ Seminar/ Interaction meet/Training Programmes, etc. including Its level of participation, No. of Participants etc. Duration and venue of the Event 5. 6. Need, relevance and justification for the Event 7. Detailed item-wise Budget Estimates 8. Networking and interactions or financial/ technical involvement of other relevant organisations including co-sponsorship 9. Expected outputs and benefits from the Event Any other information 10.

(Signature of the Head/ Chief Executive)

Name :
Designation :
Organization Seal :

Date:

Place:

# FORMAT FOR SUBMITTING PROPOSALS FOR CARRYING OUT TECHNOLOGY STATUS, TECHNOLOGY DEVELOPMENT, ANALYTICAL, RESEARCH STUDIES AND CASE STUDIES

1. Title of the study 2. Name and address of the organization Telephone(s) Fax(s) E-Mail(s) Mobile(s) 3. Details of the organization Year of establishment No. of employees ii) Full time Part time No. of technically qualified iii) personnel employed (full time) Annual turnover (past three years) (Rs. in lakhs) Exports if any (Rs. in lakhs) v) (if applicable) vi) Area of specialization viii) Services offered 4. Objective, Scope, Methodology and approach to be adopted for carrying out the study, time target 5. Duration of the study 6. Need, relevance and justification for the study 7. Detailed item-wise Budget Estimates 8. Networking and interactions or financial/ technical involvement of other relevant organisations including co-sponsorship for carrying out the study 9. Expected specific outputs and benefits fromthe study 10. Any other information

(Signature of the Head/ Chief Executive)

Name :

Organization Seal:

Date: Place:

### TERMS AND CONDITIONS FOR CARRYING OUT STUDIES UNDER TECHNOLOGY MANAGEMENT PROGRAMME

- 1. The study will cover in detail all the aspects mentioned in **Annexure....** This could be modified keeping in view the special aspects of the study and the end objectives with concurrence of DSIR.
- 2. The contents/data presented in the report will be based upon factual information and the consultancy organization/institution/organization will be responsible for the authenticity of all such information. If considered necessary, all the facts and data may be required to be substantiated to the satisfaction of the DSIR by providing the available documents / papers / access to the source etc. as the case may be.
- 3. A plan of units to be visited surveys to be conducted will be submitted to DSIR well in advance so that DSIR officials may be associated with the visiting team where considered necessary.
- 4. A separate report (monthly / quarterly / periodic) on Units visited in connection with the study will be made to the DSIR in the prescribed proforma as soon as visits are completed. A monthly/ quarterly/ periodic progress report of the study will also be submitted in the prescribed proforma.
- 5. The study will be monitored and evaluated through out by the DSIR. The institution / organization/ consultancy organization will submit to the DSIR 30 copies of the draft report. This draft report will be discussed by an evaluation committee where the institution / organization / consultancy organization would be required to present the report. The suggestions and comments made by the Committee will be incorporated in the report. The suggestions and comments made by the Committee will be incorporated in the report and revised draft report in 30 numbers will be submitted to the DSIR within a month. No payment would be made for attending meetings, seminars, etc. and for presenting reports in such meets.
- 6. Efforts should be made to complete the report within the proposed period of about 24 months / specified time duration.
- 7. The contents of this report including original drawings, photographs and any other relevant materials collected for the report will be the sole property of the Department of Scientific & Industrial Research (DSIR), Ministry of Science and Technology and the Department will have absolute rights on the same. The report can't reproduced in full or in part by the institution/organization/consultancy organization or anybody else without written permission from the DSIR.
- 8. The institution / organization / consultancy organization will provide all co-operation to the DSIR regarding participation in Workshops / Seminars/Meetings to be arranged for discussing the report with industry users, R&D organizations and others, including presentation of the report.
- 9. Obtaining of material, data information conducting surveys etc. as may be required for the study will be the sole responsibility of the institution / organization / consultancy organization undertaking the study.
- 10. The staff that may be employed for the project / study by the institution / organization / consultancy organization are not to be treated as employees of the Government of India and deployment of such staff at the time of termination of the project / study will not be the concern/responsibility of the Government of India.
- 11. The report will be typed in MS Word and a copy of the report on CD and floppy (high density, 1.44 MB) in MS Word format shall be provided.
- 12. Before the release of the 2<sup>nd</sup> and final installment, the consultancy organization/organization/institution will be required to submit authenticated utilization certificate and audited statement of expenditure.

NOTE: The grantee institute will execute an MOU and/or sign a bond on non - judicial paper of Rs.10/-, as the case may be.

### Terms and conditions governing the setting up and implementation of Centre for Technology & Innovation Management

1.	Thi	s refers to letter No	datedfrom M/s
2.		IR would provide financial sup ailed below:	port to a maximum of Rs lakhs with payment schedule as
		First installment: (at the time of the commissioning and signing of MOU) Second installment: (on satisfactory completion of sand submission of audited State and Utilization certificate) Third and Final installment: (on satisfactory completion of the satisfactory completion of th	set targets tement of Expenditure
3.	The	e broad break up of the suppor	t would be for the following items:
		<u>ltem</u>	Amount (Rs. in lakhs)
	Mai Tra Puk Dev Ser Cor Kno	cital Inpower (Research associate, ovel Inpower (Research associate, ovel Incations Incelled the second sec	s, multimedia shops
	TO	TAL	
4.			should be utilized for the specific programme of work as laid down I Division, DSIR and the grantee institution.
5.	Inst		current phase, will be in accordance with the plan outlined in the, and further as guided by the Review Committee that would be .
6.	The	e estimated financial support s	ub-programme-wise would be as under:
		Sub Component	Financial support Phase I
	1.	Activity 1	Rs
	2.	Activity 2	Rs
	3.	Activity 3	Rs
	4.	Activity 4	Rs
	5.	Activity 5	Rs
	6.	Other activities	Rs
		TOTAL	De

7. Regarding data collection and information scanning, various kinds of print and electronic media should be extensively scanned so as to extract the most relevant and contemporary data, together with extensive literature review. Subsequent analysis should be based on information elicited from various resource bases inclusive of expert opinions, personal discussions with concerned industry/

- professional sources / researchers / government departments, published literature supplemented by data retrieved from the above sources.
- 8. Obtaining of material, data, information etc. as may be required for the entire project would be the sole responsibility of the grantee institution. They would be responsible for the authenticity of the information / data presented in the outputs generated.
- 9. All efforts should be made to complete the work in all respects within the stipulated period. A monthly progress report on the status of the work should be submitted to the DSIR.
- 10. All attempts should be made to adhere to the specified time limits.
- 11. DSIR would in no way be responsible and or undertake any liability that may arise on account of any manpower who may be engaged/deployed for work related to the project.
- 12. The various activities to be undertaken under the current phase of the programme would be in due consultation with TM Division of DSIR.
- 13. Details inclusive of the organizations to be taken up for study/analysis, issues to be focused upon in the research & case studies, the topics to be taken up for the various studies/newsletters, format for presentation of such repots, structures of the programmes and workshops on TM issues, presentation of the video making / audio-visual, portal design and other matters would be decided jointly in consultation with TM Division of DSIR.
- 14. A suitable review mechanism would be set up to monitor the progress the work and assess the outputs generated. In the case of cluster, research and case studies, the draft reports prepared initially by the grantee institution would be disseminated to a Review Committee set up by DSIR. The Committee would review the draft reports and make suggestions / recommendations for modifications, additions etc. if any. Thereafter, the reports should be suitably modified by the grantee institution to include the suggestions of the Committee and thereafter finalized. Suitable vetting mechanisms would be jointly decided for the other various outputs generated under this Phase.
- 15. In case the outputs generated through the above activities are to be sold, the price, modalities, mechanism and other aspects of such sale would be decided by the TM Division of DSIR in due consultation with the grantee institution.
- 16. The grantee institution would provide to the DSIR the following outputs indicated against each activity, without any additional payment from DSIR, apart from those required for review.
- 17. Copyright for the outputs generated would be vested with the DSIR
- 18. All attempts should be made by the grantee institution to adhere to the specified time limit scheduled for each component of the programme, as jointly decided between the grantee institution and TM Division, DSIR.
- 19. The grantee institution would furnish to the DSIR, Authenticated Utilization Certificate and Audited SE pertaining to the financial support received by them, before release of any further installment of payment.
- 20. Unspent balance, if any, out of DSIR grant may be refunded to government or specific approval of DSIR may be obtained for utilization of the same during the next financial year.
- 21. The grantee institution will provide all information/details, whatsoever when DSIR or its representatives wish to visit the Centre to see accounts/ infrastructure created out of the support of DSIR.
- 22. Funds released will be reflected both in receipt and expenditure in the Statement of accounts of the grantee institution.
- 23. Government of India (DSIR) reserves the right to withdraw, discontinue or curtail the grant if the progress of the Centre is not satisfactory.
- 24. The assets (movable & immovable) being acquired by the grantee institution for the Centre out of Govt. of India funds, title of property would rest with Govt. of India and the same would be made available to it whenever required by it. In no case, whatsoever, the grantee institution will have any right to lease out or dispose off the same without the approval of DSIR.

- 25. A register of permanent/semi-permanent assets purchased wholly or substantially out of Government grant will be maintained by the grantee institution in the prescribed Proforma, GFR 19, and a copy thereof furnished to DSIR ("Asset" mean (a) immovable property and (b) movable property of a capital nature where the value exceeds Rs. 10,000) and above (each item) and having a life of not less than five years. Relevant extracts of this register should be appended to the annual statement of accounts to be submitted by Promotee. This register/ extract should also be sent to this Department and shall contain progressive figures (both stores and value). This register shall also be subject to check by audit parties.
- 26. In case of any dispute arising between the parties in connection with the DSIR supported project, decision of DSIR will be final and abiding to all the parties.
- 27. The reports and publications should not be reproduced in full or in part without written permission from the TM Division of DSIR.
- The contents of the reports and publications brought out as a result of this programme, intended for 28. dissemination should have the prior approval of the TM Division of DSIR.

ANNEXURE-VI
FORMAT OF THE BOND
BOND
KNOW ALL MEN BY THESE PRESENTS THAT WE
SIGNED thisday ofin the year two thousand and
WHEREAS on the Obliger's request, the Government has as per Department of Scientific & Industrial Research, Ministry of Science & Technology letter NO. TUD/III/C/1(3)/200 dated
NOW the condition of the above written obligation is such that if the obligers duly fulfill and comply with all the terms and conditions mentioned in the letter of sanction, then the above written bond or obligation shall be void and of no effect but otherwise it shall remain in full force, effect and virtue.
AND these present further witness as under:
The decision of the Secretary to the Government of India in the Department of Scientific & Industrial Research on the question whether there has been breach or violation of any of the terms or conditions mentioned in the letter of offer shall be final and binding on the obligers.
The Government has agreed to bear the stamp duty, if any chargeable on these presents.
Signed for and on behalf of

- 1)
- 2)

5	signed for	r and o	n benali	10
E	IAME OF DESIGNAT DATE:		IGNATO	RY :

### Proforma for submission of monthly progress report

1.	Name a	and address of organization / institution
2.	Name o	of project undertaken
3.	Date of	commencement
4.	Due da	te of completion
5.	Activitie	es being reported upon
5.1	Activity	1
	5.1.1 5.1.2 5.1.3 5.1.4	Specific progress last reported Expected milestone target and date Current status Shortfall if any and reasons thereof
5.2	Activity	
		Details as above
5.3	Activity	Details as above
5.4	Next ac	ctivity under project.  Details as above
3.	Summa	ary and remarks
		(Authorized signatory)
Place: Date:		(Authorized Signatory)
		ANNEXURE-VIII
		(FORMAT OF THE ACCEPTANCE LETTER)
Ref. No	)	Dated
Departr Techno New Mo		Road
Referer	nce :- D	SIR letter No. TUD/III-C/()/200 dated
Subject	: (Title d	of the Project/Programme)
Sir,		
owards eferred W	B DSIR of above. e accep	t in full the terms and conditions contained in your above referred letter, along with those
W	e also a	gree to execute the bond referred in your above letter. A copy of the terms and conditions returned herewith indicating our acceptance of the same.

Sd/-

(authorized representative of the grantee institution)

### FORMAT FOR STATEMENT OF EXPENDITURE

# DETAILS TO BE SUBMITTED FOR FURTHER RELEASE/ANNUAL INSTALLMENT WITH UP-TO- DATE STATEMENT OF EXPENDITURE AND UTILIZATION CERTIFICATE

1.	Sanction Lette	er No :							
2.	Total Project Cost:								
3.	Sanctioned / I	Revised	Proj	ect Cost	(if applica	ıble)			•
4.	Date of Comm	nenceme	ent of Pro	oject :					
5.	Grant Receive	ed in eac	h year :						
		Rs	•						
	b. II Year	Rs							
	c. III Year	Rs							
	d. Interest	Rs							
	e. Total	Rs							
5.	Statement of	Expendit	ure						
SI. No.	Sanctioned Heads	Funds Allo- cated (*)	Exp	enditure II Yr.	Incurred	Total	Balance as on 31 March i.e. (Col. 3-7)	Require- ment of funds	Remarks (if any)
1	2	3	4	5	6	7	8	9	10
1.	Permanent Equipments								
2.	Supplies & Materials								
3.	Manpower								
4.	Travel								
5.	Contingencies	3							
6.	Overhead Expenses								
7.	Others (if any)								
8.	Total								

ANNEXURE-IX Contd......

### STATEMENT OF EXEPNDITURE

### COST DETAILS OF PERMANENT EQUIPMENT/ ASSETS (IF APPLICABLE)

(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
l (*)	Other (**)	

(Amount in Rs.)

Asset with model Name, etc. and date of procurement

Name of Equipment/

SI.No.

Sanctioned Actual (\*)
Amount Expenditure

Expenses,if any

- (\*) This should include only the cost of equipment, insurance and freight charges.
- (\*\*) Other expenses such as bank charges, agency commission etc. should be avoided through appropriate negotiations. If unavoidable expenses incurred, may be indicated.

Signature of Chief
<b>Executive with date</b>
and rubber stamp

Signature of the Chartered Accountant with date and rubber stamp and registration no.

Signature of Competent Financial Authority with date and rubber stamp

(\*) Indicate sanctioned/ revised allocation as applicable.

#### NOTE:

- 1. Expenditure under the sanctioned heads, at any point of time, should not exceed funds allocated under that head, without prior approval of DSIR i.e. Figures in Column (vii) should not exceed corresponding figures in column (iii).
- 2. Utilization Certificate for each financial year ending 31<sup>st</sup> March has to be enclosed, along with request for carry forward permission to next year.

### FORMAT FOR UTILIZATION CERTIFICATE (TWO COPIES) FOR THE FINANCIAL YEAR...... (ENDING 31<sup>ST</sup> MARCH)

### PART-I

1.	Title of the Project/ Scheme	:			
2.	Name of the Institution	:			
3.	Chief Executive	:			
4.	DSIR letter No. & date Sanctioning the project	:			
5.	Head of account as given in the original sanction letter	:			
6.	Amount brought forward from the previous financial year quoting DSIR letter No. and date in which the authority to carry forward the said amount was given	:	i) ii) iii)	Amount : Letter No. : Date :	Rs
7.	Amount received during the financial Year (Please given No. & Date of DSIR's sanction letter for the amount)	:	i) ii) iii)	Amount : Letter No : Date :	
8.	Total amount that was available for expenditure (excluding commitments) during the financial year (S.No. 6 + 7)			Rs.	
9.	Actual expenditure (excluding commitments incurred during the financial year (upto 31st March)	)		Rs.	
10.	Balance amount available at the end of financial year			Rs.	
11.	Unspent balance refunded if any (Please give details of cheque no.etc.)			Rs.	
12.	Amount to be carried forward to the Financial year (if applicable)			Rs.	

ANNEXURE-X Contd......

### **UTILIZATION CERTIFICATE**

### PART-II

Certified that out of Rs	of grants-in-aid sanctioned/receive	d during the yearin favour
of	under this Ministry/ Depa	rtment letter No dated
and Rs	on account of unspent	palance of the previous year, a sum of
Rshas bee	en utilized for the purpose of	for which it was sanctioned
and that the balance of Rs	remaining unutilized at th	e end of the year has been surrendered
to Government (vide Challan No.	)dated	)/ will be adjusted towards the
grants-in-aid payable during the n	ext year	<u>.</u>
Certified that I have satisf	ied myself that the conditions on v	which the grants-in-aid was sanctioned
have been fulfilled/ are being fulfil	led and that I have exercised the	following checks to see that the money
was actually utilized for the purpo	se for which it was sanctioned : -	
1.		
2.		
Signature of Competent Financial Authority	Signature of Chartered Accountant with date with date and rubber stamp with registration no.	Signature of Chief Executive with date and rubber stamp and rubber stamp

### OTHER GENERAL TERMS AND CONDITIONS FOR IMPLEMENTATION OF PROJECTS/ PROGRAMMES

- 1. Every project/ programme shall be implemented as per the terms and conditions stipulated with the sanction order and in consultation with DSIR.
- There shall be no deviation of objectives/ scope of the project/ programmes after the approval is communicated to the promotee unless or otherwise it is thought desirable in the opinion of DSIR to do so.
- 3. No activity shall be entrusted to any other organization for implementation by the promotee/grantee.
- 4. The promotee/ grantee are expected to give the output within the stipulated time period, no extension shall be granted in the completion of the project/ programme without the approval of DSIR.
- 5. For seeking further grant (Installment), Promotee/ Grantee institution will have to submit Statement of Expenditure and Utilization Certificate in the prescribed proforma for each project/ programme/ event as applicable to case to case basis.
- 6. Funds would be utilized as per approved head without deviation from one activity to the other. Unspent amount shall be returned to Govt. of India, DSIR or prior approval will be sought from DSIR for utilization of the same in the next financial year.
- 7. In case the expenditure incurred exceeds the funds available, the same will be borne by the organization and no further support will be made available from DSIR.
- 8. Resource Centres for Technology Innovation and Management will have separate identity and legal status, as supported by DSIR.
- 9. Any other terms and conditions as considered necessary by DSIR, from time to time, will also be applicable.
- 10. An MOU will be executed between DSIR and the grantee institute/organization depending on case to case basis, before sanctioning the projects/programmes.
- 11. Any dispute arising out of financial support, scope of the work, coverage etc., the decision of Secretary, DSIR will be final and will be binding for the grantee institution.

## PROMOTIONAL PROGRAMMES OF DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

### **INDUSTRIAL R&D PROMOTION PROGRAMME**

- Recognition of R&D in Industry
- Recognition of Scientific & Industrial Research Organisations
- Recognition of Public Funded R&D

#### TECHNOLOGY DEVELOPMENT AND INNOVATION PROGRAMME

- Development of New Products & Processes
- Technology Demonstration
- Technology Evaluation Studies
- Promotion & Publicity of Technologies
- Absorption of Imported Technologies
- Setting up of Pilot Plants
- Consortium Projects
- Support to Individual Innovators

#### **TECHNOLOGY MANAGEMENT PROGRAMME**

- Studies on Innovation, R&D and Technology Management, Technology Transfer, Status and Development
- Case Studies on Technology Management
- Technology Management Audit Parameters
- Training Programmes / Workshops on Technology Management, Research Tools and Pedagogic Aids
- Centres for Technology and Innovation Management

#### INTERNATIONAL TECHNOLOGY TRANSFER PROGRAMME

- Documentation of Technology Export Capabilities
- Awareness Creation among potential foreign buyers about Technology Export Capabilities
- Building Technology Export Capabilities of Industry and R & D Establishments
- Research Studies for Technology Export Policy Formulation
- Promoting and Supporting Institutional Mechanisms
- Facilitating MoUs / Agreements on High Technology Cooperation & Trade

### **CONSULTANCY PROMOTION PROGRAMME**

- Consultancy Clinics / Parks
- Design Engineering and Consultancy Centres
- Consultancy Export Potential Studies
- Consultancy Capability Studies
- Training / HRD / Skill Upgradation for Consultancy
- Workshops / Seminars / Awareness Programmes for Consultancy
- Trade Fairs in India and Abroad

#### TECHNOLOGY INFORMATION FACILITATION PROGRAMME

- Digital Content Development in S&T
- Documentation of Traditional Knowledge and Folk Wisdom
- E-publishing of Indian S&T Journals
- Mapping of National S&T Productivity
- National Website / Portal on S&T
- Manpower Development Programme
- Surveys and R&D Studies
- Knowledge Net and Virtual Information System

For Programme Guidelines, Application Formats and related information, write to:

Head, Monitoring and Co-ordination

Department of Scientific And Industrial Research Technology Bhawan, New Mehrauli Road, New Delhi-110016

Fax: 011-26516078, 26960629, E-mail: srv@nic.in

http://www.dsir.gov.in