

PROJECT PROPOSAL
FOR CONSIDERATION UNDER
TECHNOLOGY DEVELOPMENT
PROGRAMME (TDP)

PROJECT TITLE

SUBMITTED BY

(Name of Principal Investigator)

(Name and Address of the Organisation)

(Date of Submission)

1: FRONT SHEET

**PROJECT PROPOSAL FOR CONSIDERATION
UNDER
TECHNOLOGY DEVELOPMENT (TD) PROGRAMME
Department of Science and Technology (DST),
Govt. of India**

For office use

File No:

Date of Receipt

PROJECT TITLE

SUBMITTED BY

(Name of Principal Investigator with designation)

(Name and Address of the Organization)

(Date of Submission)

**FORMAT FOR SUBMISSION OF PROPOSAL
FOR SUPPORT
UNDER
TECHNOLOGY DEVELOPMENT
PROGRAMME (TDP)**

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6	Undertaking from the Principal Investigator	
7	Endorsement from Head of the Organization	
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2. Detailed Project Proposal

1. Title of the Project: “ _____ ”

2. Principal Investigators: (Name, Designation and Affiliation)

	PI	Co-PI 1	Co-PI 2
Name:			
Designation:			
Address:			
Telephone No:			
E-mail:			
Date of birth:			

3. Nature of the Project
(please tick):

- 1. Technology Development in association with an industry/ user agency.
- 2. Laboratory scale demonstration of a process/ device
- 3. Pilot plant demonstration for techno-economic analysis
- 4. Nationally co-ordinated project to develop a specific technology platform
- 5. Development of a base technology and creation of a national facility
- 6. Development of a technology of societal importance
- 7. Laboratory level development of a technology of societal importance
- 8. Field level demonstration for social acceptance
- 9. Development of a cutting-edge technology relevant to the country
- 10. Development of a technology of strategic importance
- 11. Applied/basic research only
- 12. Any other (please specify)

4. Duration of the project

5. Names of participating Organizations with their addresses

6. Objectives of the Proposal (precise and preferably quantified process parameters/ product specification etc. in the bullet form):

6.1 Overall Development Objectives

6.2 Intermediate Objectives (corresponding to each milestone)

7. Fulfillment of Technology Qualifiers' Criteria:

Please tick if the proposal is

based on established R&D outcome/results	
conforming to national / international specifications	
potentially useful, demand driven and required by other agencies and users	
a development of technology for multiple applications	
an adaptation of existing technology for its applications other than originally intended	
meeting a critical national need (present/ future) and strengthening technological capabilities for the same	
an application of advanced science and technology with a promise of giving competitive solutions	

8. Cost Benefit (C-B) Analysis)/ Cost-Economic Analysis Report

9. Role of Industry (If any):

10. Origin and Justification of the Proposal

a. (Please justify based on the identified Qualifiers' criteria)

11. Summary Outline of the Project *(with Schematics, where possible; Define the Problem and give technical details)*

12. Expected Outcome in Physical Terms

- a. New/ Upgraded Product
- b. New/ Upscaled Process
- c. New/ Upgraded System
- d. Services (including Software)
- e. Feasibility Analysis
- f. Any other

13. Targeted Specifications of the Expected Outcome

14. Deliverables of the Project *(precise and in bullet form)*

15. Methodology

(Please highlight how success in the project execution will be ensured)

16. Milestones with Dates, Work Elements for each and the Organisation responsible for each Work Element

S. No.	Milestone	Target Date	Work Elements	Responsible Organisation
			1. 2.	
			1. 2.	
			1. 2.	

17. **Work Plan**
a. (Provide a bar chart giving project activities and milestones. Highlight milestones)
18. **Bench Marks to be achieved (In quantitative terms):**
19. **Novelty/uniqueness of the proposal (not more than one page):**
20. **Gaps to be covered through proposed work with special reference to the proposal:**
21. **Critical Review of latest Status of the Technology (minimum 2 pages each & with complete references) :**

21.1. National Status Review

21.2. International Status Review

22. **Justification with reference to current status (in terms of technical/economic/societal aspects):**
23. **Summary of the Project (with Schematics, where possible; Define the Problem and give technical details)**
24. **Deliverables (To be precise and quantified in bullet form)**
25. **Methodology to be adopted (Please include flow sheet if applicable)**
26. **Milestones with Target Dates, Work Elements for each Milestone and the Organization(s) responsible for each:**

S. No.	Milestone	Target Date	Work Elements to reach the respective milestones	Organization(s) responsible for each work element
1.			a) b) c)	a) b) c)
2.			a) b)	a) b)

27. Budget for the Project

(Amount in Lakhs of Rupees)

S.No	ITEM	DST Share	Other Agencies' Share
Total			

28. List of Equipment with Cost. Requested from DST:

29. List of the equipment available with the PI's Lab for utilization of the project activities (Furnish Project issue No. alongwith project sponsoring authority):

30. Techno-economic analysis of the project:

31. Bar Chart /PERT-Chart (*Graphical representation of the above activities*):

32. Items for Outsourcing (*if any*):

S. No.	Item	Justifications	Agency from which outsourcing to be made		
			First Year	Second Year	Third Year
1.					
2.					
3.					

33. Names and addresses of 10-15 subject Area Experts (*Indian/regional basis*):

34. Any other Information relevant to the Project Proposal and its Execution

35. Names and addresses of persons/institutions (10-15) interested in the outcome of the project.

3. BIO-DATA OF THE PRINCIPAL INVESTIGATOR

(Note: Similar detailed bio data should also be filled up for Co-PI's)

1. **Name:**

2. **Gender:** Male Female

3. **Date of Birth:**

4. **Designation & Affiliation**

5. **Postal Address**

6. **Phone Numbers:**

7. **E-mail ID:**

8. **Qualifications** (starting from University Level)

S.No.	Degree	Institution	Year

9. **Employment Experience**

S.No.	Position and Organisation	Nature of Job	Period

10. **List of Publications** (strictly for the last 5 years only with complete references)

10.1 Journal Publications

10.2 Conference Presentations

11. **Patents filed/granted with details** (strictly for the last 5 years only with complete references)

12. **Books published /Chapters contributed** (strictly for the last 5 years only with complete references)

13. Sponsored Research Projects (strictly for the last 5 years only with complete references)

S. No	Title	Sponsoring Agency	Period	Amount (Rupees in lakhs)	Achievements

14. Consultancy Projects (strictly for the last 5 years only with complete references)

S. No	Title	Sponsoring Agency	Period	Amount (Rupees in Lakhs)

15. Sponsored Research/Consultancy Projects submitted for approval .

S. No	Title	Agency to whom submitted	Duration	Date of Submission	Amount (Rupees in Lakhs)

16. Experience of Technology Development and Transfer (patent filed/granted), if any (strictly for the last 5 years only with complete references).

4. Budget Summary (in ₹ lakhs)

	Item	1 st Year		2 nd Year		3 rd Year		Total	
		DST	Partners	DST	Partners	DST	Partners	DST	Partners
1.	Manpower								
2.	Consumables								
3.	Contingency								
4.	Other Costs*								
5.	Travel								
6.	Permanent Equipment								
7.	Overhead Charges								
	Total								

(*Outsourced work, Fabrication & Testing)

Total Project Budget = ₹ lakhs,
 Request for DST Grant= ₹ lakhs,
 Partners Contributions= ₹ lakhs,

Research Manpower to be engaged in the project:

JRF (₹ 25,000 +HRA)	SRF (₹ 28,000 +HRA)	RA-I (₹ 36,000 +HRA)	RA-II (₹ 38,000 +HRA)	RA-III (₹ 40,000 +HRA)

Norms for Manpower, Travel, Contingency & Overheads

Manpower

Nomenclature & Emoluments	Qualification
Junior Research Fellow (₹25,000/- + HRA)	Post Graduate Degree in Basic Science with NET qualification or Graduate Degree in Professional course with NET qualification or Post Graduate Degree in Professional Course

Senior Research Fellow (₹28,000/- + HRA)	Qualification prescribed for JRF with two years of research experience
Research Associate-I (₹36,000/- + HRA)	Ph.D/ MD/ MS/ MDS or equivalent degree or having 3 years of research, teaching and design and development experience after MVSc/ M.Pharm/ ME/ M.Tech with at least one research paper in Science Citation Indexed (SCI) journal. The Research Associate Scale may be decided by the institute/ organization based on the experience of the candidate.
Research Associate-II (₹38,000/- + HRA)	
Research Associate-III (₹40,000/- + HRA)	

Travel & Contingency

₹50,000/- each per annum will be provided for Travel and Contingencies. Higher amount, based on the recommendations of the Expert Committee, to be provided where the research work involves field work or/and project has many investigators/institutions and larger manpower. The contingency amount may also be used for paying Registration Fees for attending international conferences.

Overheads

Overhead amount is towards meeting the cost of academic expenses including infrastructural facilities at the host institutes, and is permissible as given below: :

- a) For projects costing upto ₹1 crore, 10% of the total cost for educational institutions and NGOs and 8% for laboratories and institutions under Central Government Departments/Agencies;
 - b) For projects costing more than ₹1 crore and upto ₹5 crore, overheads of ₹15 lakh or 10% of total cost whichever is less;
 - c) For projects costing more than ₹5 crore and upto ₹20 crore, ₹20 lakh will be provided as overheads; and
5. For projects costing more than ₹20 crore, the quantum will be decided on a case to case basis.

Itemised Budget

a. Manpower

i. Budget for Salaries - DST Grant

Designation	Qualification	Salary per month	Number of Persons	Amount (in ₹ lakhs)	Role Description
				₹ lakhs	

ii. Budget for Salaries - Partner Contribution

Designation	Qualification	Salary per month	Number of Persons	Amount (in ₹ lakhs)	Justification
				₹ lakhs	

b. Consumables

Please provide the quantified list of consumables along with cost estimates/quotations in the Annexure (*Item, Quantity & Unit cost*)

i. Budget for Consumable Materials - DST Grant (in ₹ lakhs)

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹
₹	₹	₹	₹
₹	₹	₹	₹

ii. Budget for Consumable Materials (Partners Contribution) (in ₹ lakhs)

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹
₹	₹	₹	₹

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹

c. Contingencies

Please provide the basis of cost estimates in the Annexure.

i. Budget for Contingencies- DST Grant (in ₹ lakhs)

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹
₹	₹	₹	₹
₹	₹	₹	₹

ii. Budget for Contingencies (Partners Contribution) (in ₹ lakhs)

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹
₹	₹	₹	₹
₹	₹	₹	₹

d. Other Costs (Outsourcing/ Fabrication/ Testing/ Patenting)

Please provide the basis of cost estimates/quotations in the Annexure.

i. Budget for Other Costs-DST Grant (in ₹ lakhs)

Item	1st Year	2nd Year	3rd Year	Total
Outsourcing	₹	₹	₹	₹
Fabrication	₹	₹	₹	₹
Testing	₹	₹	₹	₹
Others	₹	₹	₹	₹

ii. Budget for Other costs- Partners Contribution (in ₹ lakhs)

Item	1st Year	2nd Year	3rd Year	Total
Outsourcing	₹	₹	₹	₹
Fabrication	₹	₹	₹	₹
Testing	₹	₹	₹	₹
Others	₹	₹	₹	₹

e. Domestic Travel – from – DST Grant (in ₹ lakhs)

Please provide the basis of cost estimates in the Annexure. (journeys, purpose)

1st Year	2nd Year	3rd Year	Total
₹	₹	₹	₹
₹	₹	₹	₹
₹	₹	₹	₹

f. Equipment proposed to be procured

Please provide justification in Annexure on the use of equipment in project. Provide supporting Quotation

i. Budget for Permanent Equipment – DST Grant

Description of Equipment	Foreign/ Indigenous	Unit Landed Cost (CIF, Custom Duty etc.)	Number of Items	Total (in ₹ lakhs)
		₹		₹
		₹		₹
		₹		₹

ii. Budget for Permanent Equipment - Partner Contribution

Description of Equipment	Foreign/ Indigenous	Unit Landed Cost (CIF, Custom Duty etc.)	Number of Items	Total (in ₹ lakhs)
		₹		₹
		₹		₹
		₹		₹

5. UNDERTAKING FROM THE PRINCIPAL INVESTIGATOR

Project Title: “ _____ ”

1. I have carefully read the terms and conditions of the Technology Development Programme and I agree to abide by them.
2. I have not submitted this or a similar Project Proposal elsewhere for financial support.
3. I shall ensure that no item/equipment shown available in the Project Proposal from my Organisation, shall be purchased under the Project.
4. I undertake that idle capacity of the permanent equipment procured under the Project will be made available to other users.
5. I have enclosed the following :
 - a. Endorsement from the Head of the Organization *(on letter head)*
 - b. Endorsement from the Collaborating Industry/Agency
 - c. Project Proposal complete in all respect *(15 hard copies and a soft copy)*

Principal Investigator: Name

Signature

Date:

Place:

6. ENDORSEMENT FROM HEAD OF ORGANISATION

(On the official letter-head)

Project Title: “ _____ ”

1. Affirmed that the Organisation welcomes the participation of Dr/Mr/Msas the PI and Dr/Mr/Ms.....as the Co-PI for the Project and that in the unforeseen and legitimate event of discontinuation by the PI, the Co-PI will assume full responsibility for completion of the Project. Information to this effect, endorsed by me, will be promptly sent to DST
2. Affirmed that the equipment and basic as well as other administrative facilities as per the terms and conditions of the award of the Project, will be made available to the Investigator(s) throughout the duration of the Project
3. The Organisation shall ensure that the financial and purchase procedures are followed as per the prevailing norms of the Organisation, within the allocated budget.
4. The Organisation shall provide timely the Statement of Expenditure and the Utilisation Certificate of the Funds under the Grant as required by DST in the prescribed format.

**(Head of Organisation)
Seal/Stamp**

Date:

Place:

7. Endorsement from collaborating Industry/ Agency

(On the official letter- head)

I have gone through the Project Proposal entitled..... submitted by *(Name of PI)* of *(Name of the Organisation)* for DST funding and noted the obligations and responsibilities indicated in our name as stated below:

Kindly be specific vis-à-vis your collaboration with the PI in terms of:

1. Contribution in financial terms *(Rupees in Lakhs)*
2. Contribution in kind *(List activities)*

I hereby affirm that my Organization/Industry is committed to participate in the Project to the full extent as indicated in the Project Proposal including the financial liabilities accruing there from as detailed above. A summary profile of my Organization is given below:

Name of Organization
Nature of Business
Number of Employees
Annual Turn over

The Annual Report for the preceding financial year is enclosed.

(Head of the Industry/Agency)
Seal/Stamp

Date:
Place:

8. POLICY ON CONFLICT OF INTEREST

DEPARTMENT OF SCIENCE AND TECHNOLOGY

FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that is intended to protect the integrity of the decision making processes and minimize biasness. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision making process adopted by DST.

Definition of Conflict of Interest:

Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

1. Coverage of the Policy:

- a) The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision making process.
- b) This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators, Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

2. Specifications as to what constitutes Conflict of Interest.

Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

- (i) Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.
- (ii) The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision making process or alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant's form etc.
- (iii) The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.

- (iv) The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.
- (v) The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.
- (vi) The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)
- (vii) The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.

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- (viii) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.
- (ix) The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.
- (x) The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

The Term “Relative” for this purpose would be referred in section 6 of Companies Act , 1956.

3. **Regulation:**

The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and Scientific Ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

4. **Confidentiality:**

The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

5. **Code of Conduct**

5.1 To be followed by Reviewers/Committee Members:

- (a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.
- (b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.
- (c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.
- (d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.
- (e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.
- (f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.
- (g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.
- (h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

5.2 To be followed by the Applicant to the Grant/Award:

- (a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.
- (b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

5.3 To be followed by the Officers dealing with Programs in DST:

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

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6. Sanction for violation

6.1 For a) Reviewers / Committee Members and b) Applicant

Any breach of the code of conduct will invite action as decided by the Committee.

6.2 For Officers dealing with Program in DST

Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

7. Final Appellate authority:

Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision making process. The decision of Secretary, DST in these issues shall be final and binding.

8. Declaration

I have read the above “Policy on Conflict of Interest” of the DST applicable to the Reviewer/ Committee Member/ Applicant/ DST Scheme or Program Officer # and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant *

I hereby declare that I have conflict of interest of any form pertaining to the proposed grant *

* & # (Tick whichever is applicable)

Name of the Reviewer/ Committee Member or Applicant or DST Officer

(Strike out whichever is not applicable)

(Signature with date)

SUMMARY

File No.:	(For Office use only)
Project Title:	
Principal Investigator Name & Address:	Name: Designation: Address: Telephone No: E-mail: Date of birth:
Collaborator / Participating Industry	
Project Budget:	
Duration:	
Project Manpower:	
Project Equipment: DST Share	
Innovative Element	<ul style="list-style-type: none">•
Objectives:	<ul style="list-style-type: none">•
Deliverables	<ul style="list-style-type: none">•

TECHNOLOGY DEVELOPMENT (TD) PROGRAMME

GUIDELINES FOR SUBMISSION OF PROPOSALS

These guidelines provide assistance for the preparation and submission of Project Proposals for support under the Technology Development (TD) Programme of the Department of Science and Technology (DST).

I Introduction

Technology Development (TD) Programme supports activities aimed at developing and integrating technologies to evolve technology systems both in the advanced/emerging areas and in traditional sectors/areas. Under the Programme, feasibility of fresh ideas/ concepts is assessed for their potential conversion into useful technology/product. Applications of R&D for socio-economic benefits is consciously promoted under this programme.

II Objectives

The primary objective of the Programme is to facilitate and support development of products or techniques/technology aimed at specific end use. The Programme stresses on clearly identifying the needs for development of the technology so that the developmental effort could be useful to the target beneficiary. It envisages active user involvement and association in the development effort. The intention is that the products/technologies developed under the Programme become useful for the benefit of the people at large. The specific objectives of the Programme are to

- develop and integrate technologies following a holistic approach in identified areas;
- promote application of modern/advanced technologies to socio-economic problem solving;
- promote modernization of traditional technologies, tools and skills;
- facilitate enhancing quality and performance of the traditional/non-traditional items;
- encourage developments in application of R&D activities; and
- promote activities aimed at improving technology, technique, material, methods and other appropriate activities conducive for development of technology status in identified areas.

III Technology Qualifiers' Criteria

The Proposal to qualify consideration under the TD Programme should meet one or more of the following criteria. The technology should be

- based on established R&D outcome/ results
- conforming to national/ international specifications
- potentially useful, demand driven and required by other agencies and users
- a development of technology for multiple applications
- an adaptation of existing technology for its applications other than originally intended
- meeting a critical national need (present/ future) and strengthening technological capabilities for the same

- an application of advanced science and technology with a promise of giving competitive solutions

IV Spectrum of Activities Qualified for Support

Under the Programme, primarily those Projects/ Activities are supported for which “proof of concept” has already been established. The Proposals aimed at applied R&D are encouraged. Proposals involving basic/ exploratory research are not considered under this Programme. Specifically, following activities are supported under the Programme:

- Applied Research and Analysis
- Development and Engineering (D&E)
- Application oriented Research, Design and Development (RD&D) having Production Potential
- Prototype Development of Product/ System/ Services/ Software Development (new, upgradation of the existing, field trials and demonstration)
- Process Development (new, up-scaling of the existing, field trials and demonstration)
- Data Generation and Feasibility Study
- Provision for Production Facility on a limited scale for a specific Technology Segment to enable the Technology to become competitive
- Sophisticated Equipment and Technology based Job-Shops for cost-effective Fabrication Techniques
- Scientific Knowledge leading to future Technology Development
- Technological Capability Development

V Who can Submit ?

- Project Proposals can be submitted for financial support by scientists/engineers/technologists working in academic institutions/registered societies/R&D institutions/laboratories having adequate infrastructure/facilities to carry out technology development work. The Programme encourages multi-disciplinary Proposals envisaging network/collaboration of various Organisations having diverse expertise and facilities for synergistic implementation of the Projects. Participation of industry is important.
- Project Proposals are also welcome from Industry having DSIR recognized R&D Laboratories either alone or in collaboration with academic/R&D Institutions.

VI Niche Areas

Some of the typical areas in which Proposals can be submitted are listed below:

- Glass and Ceramics Technology Up-gradation.
- Molecular Electronics/Conducting Polymer and Biosensors.
- Water Purification and Rural Micro-Water Management
- Waste Utilization and Management
- Public Health and Safety
- Surface Engineering Techniques for Rejuvenation of Traditional Crafts.
- Laser/ Plasmas/ Microwave Technology
- Decentralized Energy Generation and Harvesting
- Alternate Fuels, Fuel Conservation, Efficient Utilization of Fuels

- ICT- driven Technologies
- Innovative Civil Infrastructure Technologies
- Platform Technologies for a Range of Applications

The above list is not exhaustive and Proposals in other areas are equally welcome if the activity is perceived to be useful by DST for technology advancement in the country and is not being taken up under any other major R&D programme of the Government of India.

VII Forms of DST Grants

For Institutions: Project staff salaries, equipment, supplies and consumables, contingency expenditure, patent filing charges, outsourcing charges, internal travel, fabrication costs, testing charges, overheads, etc.

For Industry: Only cost of consumables upto 50%.

For Institution/Industry Joint Programmes: Support to the Industry upto 50% of the cost of consumables.

The IPR will be under the purview of DST, Institution and Industry. If, however, the Industry returns the amount received as grant from DST, the IPR, at the discretion of DST, shall be appropriately assigned to the Institution and the Industry.

VIII Mechanism of Evaluation, Implementation and Monitoring

The Technology Qualifiers' Criteria and the Niche Areas requiring intervention are identified by DST in consultation with Programme Advisory Committee (PAC). The Coordinators identified by PAC are actively involved in mobilizing the Projects by identifying the required capabilities and pooling the expertise of individuals and infrastructure of Organisations. The Project Proposals are also received directly, which are screened with a view to assess their suitability for consideration under the Programme mandate. After initial scrutiny, both directly received as well as mobilized Proposals are peer reviewed by experts and the Investigators are advised to revise the Proposal, if needed. The Proposals along with the Reviewers' Comments are placed before the Expert Advisory Committees (EAC) of the respective areas for their recommendation. Principal Investigators are called for presentation before EAC, if required. The recommended Proposals are processed for financial concurrence and administrative approval as per DST procedure.

The Projects are periodically monitored usually at site by the Project Review Committees (PRC) and/ or Group Monitoring Committees (at a common location at various stages of the progress of Projects). Close association between PI and PRC is ensured to achieve the Project Objectives. PI is advised to take necessary action on the recommendations of the Reviewers. Project Completion Reports (PCR) are sent to experts for comments. A presentation is also required to be made by PI on completion of the Project for final assessment and identification of the future course of action on the Project.

General Requirements

- (i) The coordinating Organisation implementing the Project is required to take all the financial and administrative responsibilities for the Project.
- (ii) In case of a multi-organisational Project, PI has to obtain formal consent from the collaborating organisations/scientists. Formal MoU/ Agreement may be worked out

detailing the obligations and arrangements stated in the Proposal and got approved by DST subsequent to the sanctioning of the Project, before the funds are released by DST.

- (iii) International travel is not normally permissible under the Project.
- (iv) The Project personnel recruited for the Project are temporary and they should be paid according to DST norms.
- (v) It is the policy of DST that the equipment procured under the Project be optimally utilized. The Principal Investigator shall permit the use of any spare or idle capacity of the equipment to legitimate users from the parent and other Organisations.