

**Establishment of  
Common Research and Technology Development Hubs (CRTDHs) under  
BUILDING INDUSTRIAL RESEARCH & DEVELOPMENT AND  
COMMON RESEARCH FACILITIES (BIRD-CRF) Scheme**

**Guidelines**



**Government of India  
Department of Scientific and Industrial Research (DSIR)  
Ministry of Science and technology  
<http://www.dsir.gov.in>**

**June, 2014**

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## **1.0 INTRODUCTION**

One of the key determinants of competitiveness is innovation capabilities, which refers to capabilities both in developing new scientific and technological inventions, and also in carrying out incremental changes, systemic changes and changes in the manner of doing business. Many companies are unable to translate new technologies and ideas into marketable products and services posed by innovation challenges, as they are hard-pressed for want of suitable resources. In this respect, particularly smaller companies from the Micro and Small sectors remain deprived of taking part in innovation processes due to financial constraints, in spite of their innovation acumen. It is desirable that such companies are facilitated to pursue technological challenges, by providing suitable facilities to enable them continue with their innovation-related pursuits. With the vision of creating an enabling environment for nurturing Industrial Research and Developing innovative products and processes, DSIR has launched the Scheme of '**Building Industrial Research & Development and Common Research Facilities (BIRD-crf)**' in 12<sup>th</sup> Plan, that supports creation of **Common Research and Technology Development Hubs (CRTDHs)** dedicated for use by Micro and Small Enterprises (MSEs) to carry out innovation related activities.

## **2.0 AIMS AND OBJECTIVE**

The major objective of CRTDH will be to enhance productivity and competitiveness of MSEs by providing assistance in technological problem-solving and capacity building. The CRTDH scheme aims to provide partial financial support as Grant-in aid to establish CRTDHs for industrial R&D innovation, dedicated for Micro and Small Industries (MSEs). The infrastructure and equipment established at these CRTDHs would facilitate MSEs to conduct their research and development activities, including testing of innovative products and new technologies, with special focus on sectors such as Electronics/Renewable Energy, Affordable Health, Environmental interventions, Low cost machining and New materials / Chemical Processes.

## **3.0 SCOPE OF THE PROGRAM**

a) The program aims to create CRTDHs in the following focus sectors:

<b>Target Area 1 - Electronics/Renewable Energy</b>	
<b>Focus Areas</b>	<ul style="list-style-type: none"> <li>• Power electronics</li> <li>• Strategic electronics</li> <li>• Solar/Thermal Photovoltaic</li> <li>• MRT signaling</li> <li>• Railways etc.</li> </ul>
<b>Work plan</b>	1. Thrust areas to be identified such as Power electronics, strategic electronics, solar\Thermal Photovoltaic, Reactors, parabolic technology, MRT signaling, railways etc.

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	<ol style="list-style-type: none"> <li>2. Create infrastructure and R&amp;D support in technology capacity building for gasifier, PV systems, Polysilicon cells, wafer and modules etc.</li> <li>3. Identify, collaborate, approach and support MSEs working in the identified thrust areas of electronic and renewable energy.</li> <li>4. Provide customized R&amp;D troubleshooting for MSEs.</li> </ol>
<b>Objective</b>	<p>Dedicated CRTDH to facilitate the following:</p> <ul style="list-style-type: none"> <li>• Conduct high quality and exhaustive research</li> <li>• Disseminate first-hand research information</li> <li>• Create, Disseminate, Apply and Conserve Knowledge</li> <li>• Bring out innovative products</li> </ul>
<b>Outcome/Likely impact</b>	<ol style="list-style-type: none"> <li>1. Facilitate MSEs to participate in building alternative systems for sources of energy.</li> <li>2. Utilization of several renewable technologies to reduce Greenhouse Gas emissions</li> <li>3. Developing energy efficient technologies to reduce energy consumption</li> <li>4. Indigenous design, development and manufacturing capability</li> <li>5. Developing cost effective processing equipment</li> <li>6. Availability of specialized testing facilities to MSEs for innovative R&amp;D results, capacity building and safe manufacturing practices (through workshops and hands-on training)</li> </ol>
<b>Target Area 2 - Affordable Health</b>	
<b>Focus Areas</b>	<ul style="list-style-type: none"> <li>• Diagnostics</li> <li>• Bio Pharmaceuticals</li> <li>• Medical Devices etc.</li> </ul>
<b>Work plan</b>	<ol style="list-style-type: none"> <li>1. Thrust areas to be Identified such as cancer, Infectious diseases, Human genome, bioinformatics, R&amp;D testing of drug candidates and rapid blood tests for rural areas and blood banks etc.</li> <li>2. Establish research infrastructure for R&amp;D innovation in affordable health, diagnostic tests and equipment such as Microarrays, patient monitoring devices specialized technology for biochemical tests etc.</li> <li>3. Identify, collaborate, approach and support MSEs working in the identified thrust areas of healthcare.</li> <li>4. Provide customized R&amp;D troubleshooting for MSEs</li> <li>5. Cater to India's growing demand for healthcare and awareness.</li> </ol>
<b>Objective</b>	<p>Dedicated CRTDH to facilitate:</p> <ul style="list-style-type: none"> <li>▪ Conduct high quality and exhaustive research</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Disseminate first hand research information</li> <li>▪ Create, Disseminate, Apply and Conserve Knowledge</li> <li>▪ Bring out innovative product</li> </ul>
Outcome/ Likely impact	<ul style="list-style-type: none"> <li>▪ Availability of specialized R&amp;D testing facility, R&amp;D infrastructure, BE &amp; BA study, post translation (drug/vaccine candidate)</li> <li>▪ R&amp;D testing facilities through MSEs.</li> <li>▪ Designing and development of innovative indigenous products to suit local market needs and diagnostic kits at affordable prices.</li> <li>▪ Faster diagnosis leading to early treatment, awareness on preventive healthcare disorders.</li> <li>▪ Availability of specialized testing facilities to MSEs for R&amp;D results and R&amp;D capacity building (through incremental development of R&amp;D expertise in a manner of workshops and or hands on training).</li> <li>▪ Reduce outsourcing in diagnostics and healthcare by specialized high end technology research.</li> <li>▪ Provide Healthcare to semi-urban and rural India.</li> <li>▪ Facilitation of customized R&amp;D for quality diagnostic research and health care.</li> </ul>
<b>Target Area 3 - Environmental interventions</b>	
<b>Focus Areas</b>	<ul style="list-style-type: none"> <li>• Water technology</li> <li>• Effluent treatment</li> <li>• Waste disposal</li> <li>• e-waste</li> <li>• Recycling technologies etc.</li> </ul>
<b>Work plan</b>	<ol style="list-style-type: none"> <li>1. Thrust areas on environmental interventions to be identified, such as disposal of municipal solid waste, industrial and hospital waste, bio-medical waste, e-waste etc.</li> <li>2. Establish research infrastructure for R&amp;D innovation in the above mentioned areas.</li> <li>3. Identify, collaborate, approach and support MSEs working in the above identified thrust areas of waste management.</li> <li>4. Provide customized R&amp;D troubleshooting for MSEs.</li> <li>5. Cater to India's growing demand for converting waste into wealth.</li> </ol>
<b>Objective</b>	<p>Dedicated CRTDH to facilitate:</p> <ul style="list-style-type: none"> <li>• conduct high quality and exhaustive research</li> <li>• disseminate first hand research information</li> <li>• Create, Disseminate, Apply and Conserve Knowledge</li> </ul>

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	<ul style="list-style-type: none"> <li>• Bring out innovative products</li> </ul>
<b>Outcome/Likely impact</b>	<ul style="list-style-type: none"> <li>• Availability of high quality tests, equipment facilities through MSEs.</li> <li>• Develop innovative indigenous cost-effective technological solutions.</li> <li>• Availability of specialized R&amp;D and testing facilities to MSEs for R&amp;D results and R&amp;D capacity building (through workshops and hands-on training).</li> </ul>
<b>Target Area 4 - Low cost machining</b>	
<b>Focus Areas</b>	<ul style="list-style-type: none"> <li>• Machine tool design</li> <li>• Production and testing equipment</li> <li>• CNC machining</li> <li>• Metal forming techniques etc.</li> </ul>
<b>Work plan</b>	<ol style="list-style-type: none"> <li>1. Thrust areas to be identified such as metal-cutting, metal-forming machine tools, conventional machine tools and computer numerically controlled (CNC) machines.</li> <li>2. Facilitate development of technology for use of new and emerging materials.</li> <li>3. Designing simple jigs and fixtures for increasing productivity.</li> <li>4. Establish research infrastructure for R&amp;D innovation in low cost automation.</li> <li>5. Identify, collaborate, approach and support MSEs working in the identified thrust areas.</li> <li>6. Provide customized R&amp;D troubleshooting for MSEs.</li> </ol>
<b>Objective</b>	<p>Dedicated CRTDH to facilitate:</p> <ul style="list-style-type: none"> <li>• Conduct R&amp;D on need based customized technology interventions for the development of innovative and inclusive technologies/products.</li> <li>• Sustaining the steps for successful implementation of low cost machining research results in MSE sectors</li> <li>• Capacity building of stake holders in cluster for improved technical planning and dissemination of R&amp;D results including first hand research information for MSE clusters.</li> <li>• Bring out innovative products and processes</li> </ul>
<b>Outcome/Likely impact</b>	<ul style="list-style-type: none"> <li>• Facilities to MSEs for value additions at lower costs with the aim to solve the issue of specific user needs.</li> <li>• Improvement in the features of CNC machines, use of new materials for reducing cost and ease of machining etc.</li> <li>• Facilitating MSEs for developing Automation, handling systems and TPM-friendly machines.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Availability of specialized testing facilities to MSEs for R&amp;D results, capacity building and safe manufacturing practices (through workshops and hands-on training).</li> <li>• Development of skilled manpower and expertise in automation.</li> <li>• Development of Indigenous R&amp;D and proprietary technology with reduced costs and upgraded production systems.</li> <li>• Reduce outsourcing of technology and products.</li> </ul>
<b>Target Area 5– New Materials/ Chemical Process</b>	
<b>Focus Areas</b>	<ul style="list-style-type: none"> <li>• Chemical processes</li> <li>• Chemicals/ petrochemical <ul style="list-style-type: none"> <li>▪ Metal and Metallurgy</li> <li>▪ Material testing etc,</li> </ul> </li> </ul>
<b>Work plan</b>	<ol style="list-style-type: none"> <li>1. Identify thrust areas and establish research infrastructure for R&amp;D innovation in: <ol style="list-style-type: none"> <li>i. New material development to improve efficiency and operations.</li> <li>ii. Chemical corrosion and metallurgy</li> <li>iii. Developing polymeric blends to improve disposability and safety</li> <li>iv. Cost reduction in chemical manufacturing, with improved quality and purity</li> <li>v. Chemistry of emerging energy sources</li> <li>vi. Technologies to decarbonise chemical energy production and reduce GHG emissions</li> </ol> </li> <li>2. Identify, collaborate, approach and support MSEs working in the identified thrust areas of material and chemical process.</li> <li>3. Provide customized R&amp;D troubleshooting for MSEs</li> <li>4. Continuous Tech support and delivering solutions to MSEs</li> </ol>
<b>Objective</b>	<p>Dedicated CRTDH to facilitate:</p> <ul style="list-style-type: none"> <li>• Conduct high quality and exhaustive research</li> <li>• Disseminate first hand research information</li> <li>• Create, Disseminate, Apply and Conserve Knowledge</li> <li>• Bring out innovative products</li> </ul>
<b>Outcome/ Likely impact</b>	<ul style="list-style-type: none"> <li>• Facilities to MSEs for material/chemical processing, characterization and treatment.</li> <li>• Availability of specialized testing facilities to MSEs for R&amp;D outcomes , capacity building and safe manufacturing practices (through workshops and hands-on training).</li> <li>• Develop Indigenous R&amp;D and proprietary technology to produce chemicals with reduced costs.</li> <li>• Developing corrosion resistant and cost effective materials, corrosion monitoring techniques and residual processing equipment.</li> <li>• Reduce outsourcing of technology and products.</li> </ul>

b) The CRTDH would provide infrastructure and equipment facilities for MSEs to conduct their research and development including testing of innovative products & new technologies.

c) The CRTDH is expected to act as linkage between MSEs technology requirement and institutional technology know-how, while ensuring participation of MSEs.

#### **4.0 PROPOSALS INVITED**

DSIR will establish CRTDH in the following three priority sectors. Well-defined proposals to establish CRTDH in the following sectors are invited in the first phase:

1. Electronic/Renewable Energy
2. Affordable Health
3. Environmental interventions

Establishment of CRTDH in the remaining two sectors viz. Low cost machining, New Materials/ Chemical Process will be taken up later.

#### **5.0 ELIGIBILITY TO HOST CRTDH**

- a) The Applicant Host Organization should be from National laboratories, Public funded bodies or Institutions having a distinct legal entity (as per GFR 206), which are willing and capable of setting up these CRTDHs in places located in the proximity of clusters of MSEs working in the targeted disciplines, who could avail the facility to carry out their research and technology development work.
- b) There should be adequate land and building facilities, earmarked for creation of CRTDH.
- c) The Applicant Host Organization should have the requisite expertise and experience in the identified sectors mentioned in the objective and scope of the Scheme as at sections 2.0 and 3.0 above. Organizations having prior experience in collaborating with MSEs would be preferred.

#### **6.0 NATURE OF SUPPORT**

- a) The support amount would be limited to 70% of the total cost of establishing the CRTDH (excluding land and building) and subject to a ceiling amount of Rs. 15.00 crore per CRTDH, in the form of Grant-in- aid from DSIR.

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- b) The financial support provided by DSIR shall be towards following items/activities:
- Cost of procurement of R&D equipment
  - Cost of infrastructure creation needed to operate R&D equipment
  - Cost towards R&D facilities such as
    - Design engineering centre,
    - Pilot plant and scale-up facilities,
    - Development of prototypes/processes
    - Consultancy services for augmenting technical knowledge and indigenous development
    - Testing and validation
    - Workshops/Training/Skill development and research information.
- c) Land and building cost should be borne by the Host Organization.
- d) The cost towards consumables and recurring costs to establish and operate the CRTDH should also be borne by the Host Organization.

### **7.0 DURATION OF ESTABLISHMENT AND OPERATION OF CRTDH**

The Applicant Host Organization has to clearly indicate in the proposal, the time duration required for establishment of CRTDH as well as making it operational with achievable milestones in a phased manner.

### **8.0 SELECTION PROCEDURE**

- a) Proposals received in prescribed format will be scrutinized by an initial screening committee constituted by DSIR for completeness with respect to the guidelines and relevance of the scheme.
- b) The proposals would be evaluated by three identified external domain experts. Experts will be provided with a relevant questionnaire to objectively mark/assess the proposal. Selection of Host Organizations will be through initial expert evaluation with objective assessment system.
- c) Duly recommended proposals will be placed before CRTDH Advisory and Screening Committee (CASC) constituted with the approval of the Secretary, DSIR.
- d) Proposal(s) cleared/recommended by CASC would be processed for financial concurrence of IFD and approval of the Secretary, DSIR. The decision, so or otherwise, will be communicated to the Applicant Host Organization.

## **9.0 RELEASE OF FUNDS**

- a) Before release of funds, the Host Organization has to enter into an agreement/Memorandum of Understanding with DSIR that would clearly spell out the specific roles, responsibilities and obligations of both the parties.
- b) The Host Organization has to sign “Terms and Conditions” governing the Grants-in-Aid for establishment and operation of CRTDH prior to release of the 1<sup>st</sup> installment, which will be enclosed with the letter of approval.
- c) After completion of all due formalities, 1<sup>st</sup> installment would be released to the Host Organization. DSIR funds will be released in accordance with the General Financial Rules (GFR) and Provisions, as applicable. The amount of the 1<sup>st</sup> installment shall be limited to a maximum of 60% of the total approved DSIR support, subject to confirmation of availability of land and building for the CRTDH with the Host Organization.
- d) Release of subsequent installments will be based on satisfactory performance, deliverables/milestones achieved, recommendation of the Project Guidance cum Review Committee (PGRC) and submission of audited accounts and Utilization certificate. In cases where satisfactory performance might not be achievable towards utilizing the amount released under the 1<sup>st</sup> installment, the subsequent installment would be released only after confirmation of operation of instrument(s) purchased out of the 1<sup>st</sup> installment, and other due commitments as applicable.

## **10.0 OPERATIVE MECHANISM of CRTDH**

The CRTDHs will operate within the following broad mechanism:

- a) The CRTDH should start its operations within one year of first installment of grant is released by DSIR.
- b) Periodic monitoring and review of the progress of achievements of establishment and operations of the CRTDH will be through a Project Guidance cum Review Committee (PGRC) constituted by DSIR. This Committee will guide and suggest any modifications/ additions in the achievable targets directed towards set objectives, including recommendations for release of further installments, continuity / extension / short-closure of the project, etc.
- c) The day-to-day operations of CRTDH will be taken care of through a Management Committee (MC) duly approved by DSIR and headed by the Head of the Host Organization and/or his representative and comprising of members of eminence from among Industry representatives of MSEs from the concerned sector, Research and Academic experts and other Resource persons from the concerned sector, Finance and

Management experts, apart from DSIR. DSIR will have the power to reconstitute the Management Committee (MC), if necessary.

- d) The MC shall be empowered to device a business model useful for the CRTDH, including methodology of time-sharing, user charges and other operating parameters, well in advance before implementing each sub-project.
- e) The Host Organizations should clearly specify their plans on sustainability of the CRTDH. The CRTDH is not to be operated on commercial basis and is expected to operate on a cost plus basis.
- f) The CRTDH should have well qualified and skilled manpower of the Applicant Host Organization for taking up R&D activities as well as support activities. Alternatively, the concerned industry may deploy their own manpower for executing their R&D activities at the CRTDH.
- g) The Applicant Host Organization shall maintain a separate account for CRTDH.
- h) Users of CRTDH will be assured of confidentiality through Non Disclosure Agreement (NDA) and/or secrecy agreements with the CRTDH.
- i) Establishment of CRTDH will be deemed to have been successfully completed when all the projected deliverables have been accomplished, duly recommended by the PGRC on submission of final audited statements of accounts.
- j) Closure of the project by DSIR will be done after receipt of audited accounts and utilization certificate from the CRTDH. Thereafter, annual progress reports for three years would be submitted by the CRTDH to DSIR.
- k) Under the conditions when the CRTDH remains under-utilized, the MC may allow Government laboratories or Institutions to utilize the facilities with approval of DSIR.

## **11.0 EXPECTED DELIVERABLES**

The expected deliverables are as follows:

- a) Creation of state-of-art facilities for carrying out industrial research and innovation activities, that may comprise of a design engineering centre, pilot plant and scale-up equipment, support systems for development of prototypes/processes, augmenting technical knowledge and indigenous consultancy, specialized testing and validation, skill development and research information, etc. for the benefit of MSEs.
- b) Invoke industrial participation through networking and nation-wide publicity of the created facility. Each CRTDH is expected to cater to more than 200 MSEs within a time-frame of five years.
- c) Each CRTDH should set a target of enabling at least 10 MSEs make use of the facilities in the first year of its operation, gradually increasing to the proposed target.

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- d) CRTDHs should work towards bridging the gaps between existing institutional know-how and R&D needs of MSEs to develop innovative products, and thereby help the industries expand their lean R&D portfolios.
- e) Each CRTDH will develop a business model for its sustainability so that it becomes self-sufficient in 5 years time after its establishment.

### **12.0 PROCEDURE FOR SUBMISSION OF PROPOSALS**

The Applicant Host Organization has to submit the application in the prescribed format (**Annexure I**) in five copies. A soft copy of the proposal, along with all annexures, enclosures and formats, together with a self-contained summary of the proposal in a maximum of two pages, as **MS Word** file, is also to be submitted. The proposal should be forwarded by the head of the applicant host organization and submitted to:

**Scientist-C**

**Common Research and Technology Development Hubs (CRTDHs)**

**Department of Scientific & Industrial Research (DSIR)**

**Hall-C, Room No. 17**

**Technology Bhawan, New Mehrauli Road, New Delhi 110 016**

**Telephone: (011) 26590333**

**E-mail: [ramesh.g@nic.in](mailto:ramesh.g@nic.in)**

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**ANNEXURE-I**

**Application for seeking partial financial support under BIRD-crf scheme of DSIR for creation of Common Research and Technology Development Hubs (CRTDHs) in**  
**SECTOR-----**

*(Please read the guidelines and instructions before filling up the application form)*

**1. General Information of the Applicant Host Organization**

- 1.1. Name and Address of the Applicant Host Organization Institute/Organization
- 1.2. Name, Designation and Contact Details of the Head of the Applicant Host Organization Institute/Organization
- 1.3. Type of Organization
- 1.4. Brief history of the Applicant Host Organization Institute including genesis, legal status, etc.
- 1.5. R&D background of the Applicant Host Organization Institute/organization
  - 1.5.1 Details of expertise and technologies developed
  - 1.5.2 Ongoing R&D activities and achievements, including patents and publications
- 1.6. Strengths and competency of Applicant Host Organization (in terms of infrastructure and manpower)
  - 1.6.1 Details of Existing land, building and R&D infrastructure
  - 1.6.2 Details of Existing R&D/skilled manpower
- 1.7. Details of Research Funding(s) received in last five years by the Applicant Host Organization:

Year	Project title	Funding agency	Amount received/approved	Status of project

**2. Proposal Summary**

- 2.1 Priority area under the focus sector
- 2.2 Expected Target Beneficiaries of the CRTDH
- 2.3 Name and location of MSE cluster(s) in focus sector
- 2.4 Identified unmet R&D and Technology development needs of MSE cluster in focus sector.  
Attach prospective client interaction report(s).

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2.5 Write-up on Applicant Host Organization's R&D expertise, patents and publications in focus /priority sector.

2.6 Proposal for creation of CRTDH

2.6.1 Rationale and Objectives

2.6.2 Write up on facilities to be created and activities to be facilitated/ supported

2.6.3 Details of allocated land and building for creation of the hub

2.6.4 Detailed break-up of project cost

S.No	Head	Total Estimated Cost		Source of Finance		
		Capital	Recurring	Contribution from Applicant Host Organization institute	Demand from DSIR	Any other, please mention
a.	Cost towards Land, Building, etc.				Nil	
b.	Cost towards procurement of R&D equipment					
c.	Cost towards establishment of Infrastructure					
d.	Cost towards R&D Facilities.					
	• Design engineering centre,					
	• Pilot plant & scale-up,					
	• Development of prototypes/processes,					
	• Consultancy for Technical knowledge and indigenous development					
	• Testing and validation					
	• Skill development and research information					
e.	Chemicals, Raw materials, Mechanical tools, Software tools					
f.	Manpower					
g.	Workshops/Training (Demand from DSIR not to exceed 5% of total grant)					
h.	Any other, please specify					

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2.6.5 Details of equipment to be procured from for CRTDH scheme (Year wise list out the items)

Year	S.No	Name of equipment	Function/ Description/ Use	Quantity	Specific requirement in proposal	Total estimated value
I						
II						

2.6.6 Business Model for self sustainability

2.6.7 Expected outcome (Qualitative and Quantitative)

2.6.8 Possible Risk factors

2.6.9 Regulatory approvals, if any

### 3. MONITORABLE YEAR WISE MILESTONES AND ANTICIPATED OUTCOMES/DELIVERABLES

S.No	Activity to be undertaken	Timeline	Indicators of progress/milestone	Expected MSE participation

### 4. ANY OTHER RELEVANT INFORMATION IN SUPPORT OF APPLICANT HOST ORGANIZATION INSTITUTE

### 5. DECLARATION:

I/We declare that all the statements made in this application are true, complete and correct to the best of my /our knowledge and belief. In the event of any information, found false or incorrect, my/our proposal will stand cancelled and all my/our claims will be forfeited. Further, it is stated that I/we have not received/applied for any financial assistance for the present proposal from any other agency.

Place:  
Date:

(Signature of Head of the Institution)

**ANNEXURE-II****Instructions for Applicant Host Organization**

1. Applicant Host Organizations should go through the scheme guidelines and details available on the web site (<http://www.dsir.gov.in>) before filling up the application. The application should be from National laboratories, public bodies or institutions having a distinct legal entity as per General Finance Rules, Government of India, and where MSEs will have access to carry out their R&D.
2. The Applicant Host Organization has to submit the application in prescribed format (Annexure I). Five sets of proposals along with all annexures and enclosures, together with two page summary, and a soft copy of the same in MS-Word format is also to be submitted.
3. Information in the application should be complete. If any column is not relevant, it should be marked as 'NOT APPLICABLE'. Incomplete applications shall not be entertained and would be summarily rejected.
4. Cost estimates to be given and the same need to be drawn realistically and full justification to be given.
5. Enclosures and Annexure should be labeled properly and should be attached in the sequence with the application with separators. The document holder should be superscribed with "CONFIDENTIAL - DSIR CRTDH PROPOSAL".
6. All figures for budget should be depicted as 'Rs. in lakhs' and with only two decimal digits. This should be followed strictly to avoid typographical errors.
7. Well-drafted proposals should be submitted. Incomplete applications are liable to be rejected.
8. In case the proposal goes through a complete evaluation process, the Host Organization will have to enter into an agreement with this department. Applicant Host Organizations are advised to go through the agreement clauses and ensure that they are acceptable. No changes are possible in the agreement format.
9. No interim enquiries shall be entertained. The decision taken by the department shall be final and would be intimated to the Applicant Host Organization through written communication as per the address given in the application.

S.No. IV

**ANNEXURE-III**

**FORMAT OF AGREEMENT/MOU**

KNOW ALL MEN BY THESE PRESENTS THAT WE ..... (herein after called the “Obligergs” which term shall, unless excluded by or repugnant to the context, be deemed to include its successors, permitted assigns and all persons entitled to) thereby firmly bound to the President of India (hereinafter called the “Government” his successors and assigns) in the sum of Rs. .... lakhs (Rupees..... lakhs only) for establishment of Common Research and Technology Development Hubs for the industry sector“.....” well and truly, to be paid to the government on demand and without a demur, for which payment we firmly bind ourselves by these presents.

SIGNED this\_\_\_\_\_day of\_\_\_\_\_in 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..... dated ..... (hereinafter referred to as the “Letter of sanction” which forms an integral part of these presents and a copy thereof is annexed hereto) agreed to make in favour of the Obligergs for the purpose of establishment of Common Research and Technology Development Hubs for the industry sector.....“a fee of Rs..... lakhs (Rupees.....lakhs only) out of which Rs. .... lakhs (Rupees.....lakhs only), have been paid to the obligers (the receipt of which sum the obligers do hereby admit and acknowledge) on condition of the obligers executing a Agreement/MOU in the terms and manner contained hereinafter which the obligers have agreed to do.

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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 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:

- 1) 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.
- 2) The Government has agreed to bear the stamp duty, if any chargeable on these presents.

**Signed for and on behalf of**

.....

**NAME OF THE SIGNATORY**

**DESIGNATION**

**ANNEXURE-IV****Terms & Conditions governing financial support for establishment of CRTDHs and its operations**

1. This refers to letter No. .... dated .....from M/s (Name of the Host Organization).....
2. DSIR would provide financial support to a maximum of Rs..... lakhs to M/s (Name of the Host Organization)..... for establishment of CRTDH with payment schedule as detailed below
 

**First installment:**  
*(at the time of the commissioning of the work and signing of Agreement/MOU)*

**Second installment:**  
*(on satisfactory completion of set targets and submission of audited Statement of Expenditure and Utilization certificate)*

**Third and Final installment, if any:**  
*(on satisfactory completion of the current Phase)*
3. The break up of the above support would be for the following items:

**(Rs. in lakhs)**

<b>Sl No.</b>	<b>Items</b>	<b>Amount</b>
a.	Cost of procurement of R&D equipments I. .... II. .... III. ....	
b.	Cost of infrastructure creation needed to operate R&D equipment	
c.	<u>Cost towards R&amp;D facilities such as</u> i. Design engineering centre, ii. Pilot plant & scale-up, iii. Development of prototypes/processes, iv. Consultancy for Technical knowledge and indigenous development v. Testing and validation vi. Workshops/Training/Skill development and research information	

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4. The support will be utilized for above approved/items of expenditure/activities for MSE clusters under CRTDH project only. In no case whatsoever; such sums can be diverted from one item to another item or to any other project without prior approval of the competent authority in DSIR.
5. The decision of the competent authority in DSIR in respect of CRTDH scheme will be final and binding upon the stakeholders.
6. In case of any dispute arising out of the financial support and/or the scope of work in terms of physical targets, the decision of competent authority in DSIR will be binding upon the Host Organization.
7. In case of any disputes arising between the parties related to CRTDH, these would be limited to the jurisdiction of Delhi High Court only.
8. 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 CRTDH.
9. Government of India (DSIR) reserves the right to withdraw, discontinue or curtail the grant if the progress of the CRTDH is not satisfactory.
10. The retention schedule of documents for CRTDH for RTI Act, 2005 may be as follows:
  - Rejected or not supported application: one year from the date of rejection
  - Approved proposals: Three years (after closure of the project/issuance of final sanction order)
11. A Project Guidance cum Review Committee (PGRC) constituted by DSIR shall periodically review the technical and financial progress of the project and recommend release of grants, continuity / extension / short-closure, etc. The day-to-day operations of CRTDH will be done through a Management Committee (MC), constituted with the due approval of DSIR and headed by the Head of the Host Organization and/or his representative and comprising of members of eminence members of eminence from among Industry representatives of MSEs from the concerned sector, Research and Academic experts and other Resource persons from the concerned sector, Finance and Management experts, apart from DSIR . DSIR will have the power to reconstitute the Management Committee (MC), if considered desirable.

### **Common Research and Technology Development Hubs (CRTDHs)**

12. All the projects files are open for CAG audit inspection, which takes place every year. For day-to-day functioning, the Host Organization will constitute a Management Committee, with the approval of DSIR.
13. The Host Organization will submit six monthly technical and financial progress reports in the prescribed format to DSIR.
14. The cost related to consumables and manpower will be borne by the Host Organization on cost-plus basis. The CRTDH will not work on commercial basis.

### **FINANCIAL CONDITIONS:**

15. Any unspent balance out of the amount released must be surrendered to the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology (MoST).
16. However, depending on the progress of the project, unspent funds may be carried forward to the next financial year for utilization for the same project with the prior written approval of the DSIR.
17. The grantee institution will provide all information/details, whatsoever, when DSIR or its representatives wish to visit the Centre to see the accounts/ infrastructure / facilities/use created out of the support of DSIR.
18. Approval of the CRTDH project and the release of funds to the Host Organization is subject to an “Agreement/MOU” which should be submitted to DSIR by the Host Organization before release of 1<sup>st</sup> installment.
19. The amount received from the DSIR would be kept in a separate account, the details of which shall be intimated to the DSIR, MoST. Transactions from the account shall only be for the purpose of the approved project. Any interest earned on the amount granted is adjustable by the DSIR, MoST against the cost of the project. It is necessary that separate audited books of accounts be maintained for the expenditure incurred on the project and these books should be freely available to Government Auditors whenever required by them. Following conditions would prevail:
  - a. Any expenditure incurred prior to the issue of the sanction shall not be admissible against this grant.
  - b. Any remaining unutilized amount on completion of the project shall be refunded along with accrued interest immediately by the Host Organization to DSIR.
20. For permanent assets, acquired wholly or partly out of the grant, an audited record should be maintained in the form of a register which should be made available to

Government Auditors whenever demanded. The term “assets” will mean: (i) all immovable property; and (ii) movable property of a capital nature where the value exceeds Rs.1,000/-. The amount will not be utilized for construction of any building / acquiring land by purchase, lease etc / permanent asset like machinery required for augmenting general production facilities. Pilot plants, test equipment, test rigs, jigs, tools and fixtures, etc required for research purpose, however, may be built/made/acquired out of the DSIR, MoST grant, if so identified in the approved project proposal, or subsequently approved by the DSIR.

21. The title of assets, if any, wholly or partly acquired out of the DSIR financial support will rest with DSIR, Government of India, and shall not be disposed off/leased out for use to any other parties without the specific written permission of the DSIR, MoST. The sale proceeds, if any, arising out of such disposal shall be intimated to the DSIR and shall be deposited in the account maintained for the amount received from the DSIR.
22. 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 DSIR.
23. 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.

#### **TRANSFERABILITY OF THE PROJECT:**

24. While the Host Organization cannot transfer the whole project or a part of project to any other organization, however it can, with the prior approval of DSIR, outsource a part of the work of the project to a research institute or industrial unit, in which case the payment made to such organization shall be on the basis of the quantum of work done for the project with prior approval by DSIR.

#### **MONITORING:**

25. The project will be periodically monitored by PGRC constituted by DSIR comprising of a group of experts nominated by the DSIR, MoST.

#### **USE AND LICENSING OF KNOW HOW:**

26. Copyright for design, publications, software generated from the project under CRTDH by MSEs would be vested with the concerned MSEs involved in the project.

27. Ownership of the IPR generated through the project, patent rights, know-how and other intangible assets generated through the project shall rest the concerned MSEs involved in the project. The DSIR, MoST does not own any responsibility for disputes arising out of IPR issues, however, the rules and regulations of NRDC or PFC of TIFAC will apply for those projects supported for patents by them.

**REPORTING:**

28. It is required that Statement of Accounts, duly audited by a Chartered Accountant, as of 30<sup>th</sup> September of each financial year, should be sent so as to reach DSIR, MoST by 31<sup>st</sup> October of that year. The audited annual statement of accounts of the project along with utilization certificate also shall be sent to the MoST, DSIR within 90 days of the close of each financial year.
29. If the project involves sponsors other than DSIR, such statements of accounts should show clearly the apportionment of expenditure between the various sponsors, in accordance with the agreed financial contributions of each sponsor to the project at the time of project initiation.
30. Quarterly reports of the progress of technical and physical work content of the project shall also be sent to the DSIR, MoST.
31. A Completion Report shall be submitted to the MoST, DSIR within 90 days of the conclusion of the project. This report shall be in two parts (i) Technical and (ii) Financial. The format of (i) should be finalized by the Host Organization in consultation with DSIR, while (ii) the latter consisting of a consolidated audited statement of accounts of all amounts spent on the project from the DSIR, MoST project amount released and Certificate of Utilization of all such amounts, along with a certificate from the auditors.

**ESCALATION:**

32. Any escalation in the cost of the project above and over the approved cost of the project will be borne by the Host Organization.

**TERMINATION OF THE PROJECT:**

33. The DSIR, MoST will have the right to terminate / close the project at any stage

If it is convinced that the fund released have not been properly utilized, or  
Appropriate progress on the project is not being made, or  
The project is not being carried out as per the terms and conditions and / or as per the nature and scope of the work as defined in the approved project proposal.

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34. In case of termination of the project for not proper utilization / unsatisfactory progress of the project / violation of terms as given above, the entire amount of the grant together with interest, as applicable under the provisions of GFR, and the amount received by disposal of the assets will be returned to MoST, DSIR.
35. In case of abandonment of the project due to non compliance of the terms and condition and/ or as per the nature of the work as defined in the approved project proposal by Host Organization, the Host Organization has to return the funds disbursed along with penal interest of 12% to DSIR. The rate of interest will be calculated from the date of first sanction.
36. If the project is abandoned for any techno-economic or any reason other than the above, based on the recommendations of the monitoring committee set up by the DSIR, MoST and approved by the DSIR, MoST then the unspent money from the DSIR, MoST amount released to the project as well as any interest accrued thereon and / or any amount recoverable by way of disposal of assets procured out of funds released by the DSIR, MOST shall be paid back to the DSIR, MoST.

#### **MODIFICATION OF TERMS & CONDITIONS:**

37. The above terms and conditions may be modified by the DSIR, MoST through mutual agreement.

**Format for evaluation by Domain expert(s)**  
**(To be filled by expert)**

1. Name and details of the Expert :  
(e-mail ID, mobile no., contact address)

2. Assessment of merits of the proposal based on:

2.1 Needs of MSEs

- Are the needs of MSEs appropriately identified?
- What and how much is the contribution to advancement of existing technology?
- What is the Innovation level?
- What is the level of risk?
- What is the expected participation of MSEs?
- Is the proposal frame-work and design appropriate to the mentioned objectives of the CRTDH?
- Is there possibility of IP generation?

2.2 Infrastructure of the Applicant Host Organization

- Does the Applicant Host Organization have appropriate experience that is relevant to the project?
- Does the Applicant Host Organization have adequate land, building, etc. for establishment of the CRTDH?
- Are the activities to be taken up in the research facilities to be created appropriate to the mentioned objectives?
- Does the Applicant Host Organization have the requisite technological capabilities in terms of R&D equipment, qualified/skilled manpower, consumables, etc.?

2.3 Achievability of milestones/deliverables

- Are the timelines/milestones/deliverables set realistic and achievable?
- Is there a plan to become self-sustainable after two years? How realistic it is?
- Is the Mode of access of the facility to other users clearly defined?

2.4 Justification of budget

- What is the extent to which high-end equipment proposed to be procured is justified?
- What is the extent of financial support from other agencies?

2.5 Recommendations to CASC: Shortlisted /Rejected

**S.No. VII****ANNEXURE-VI****STATEMENT OF EXPENDITURE**

(Year means Financial Year i.e. 1st April to 31st March next year)

1. Sanction Letter No. \_\_\_\_\_
2. Total Project Cost Rs. \_\_\_\_\_
3. Sanction/Revised Project Cost (if applicable) Rs. \_\_\_\_\_
4. Date of Commencement of Project \_\_\_\_\_

## 5. Statement of Grant Received &amp; Expenditure:

## 5(a). Grant received

Year	Grant received	Unspent Balance carried forward from previous years, if any	Interest accrued, if any	Total amount that was available for expenditure	Total expenditure incurred	Balance if any to be carried forward for next year
1	2	3	4	5(2+3+4)	6	7

(\*) Give break up of DSIR grant under various heads for which related in sanction letter.

## Common Research and Technology Development Hubs (CRTDHs)

### COST DETAILS

#### 6(a). Permanent Equipment/Assets etc.

Sl. No.	Name of Equipment/Asset with model name, specifications etc.	Date of Procurement	Amount envisaged in the proposal	Actual(*) Expenditure	Other(**) expenses,	Total expenditure
---------	--	---------------------	----------------------------------	-----------------------	---------------------	-------------------

Note: In case of imported equipment, please specify the c.i.f. cost of the equipment, custom duty, insurance, total landed cost, in-land freight charges etc., separately.

(\*) This should include only the cost of equipment, insurance freight charges.

(\*\*) Other expenses such as bank charges, agency commission etc. should be avoided through appropriate negotiations. If unavoidable expenses incurred, may be indicated.

(#) Overhead expenses (item wise details to be given)

Signature of  
Project Head/Head of  
Host organization with  
Seal and date

Signature of  
Project Head/Head of Competent  
financial Authority of Host  
organization with  
Seal and date

Signature of  
Chartered  
Accountant/Accounts officer  
with  
Seal and date

**AUDITOR'S CERTIFICATE**

(In case of annual statement of expenditure)

Certified that financial accounts for the project have been audited by me/our firm and the details of expenditure given in the financial statements for the year ....., are correct.

Name & Signature of  
Chartered Accountant  
with Registration No. & Seal  
Date :

**ANNEXURE-VII**

**UTILISATION CERTIFICATES (TWO COPIES)  
FOR THE FINANCIAL YEAR ----- (ENDING 31<sup>ST</sup> MARCH)**

1. Title of the project
2. Name of the Host Organization
3. MOST(DSIR) Letter No & date of sanctioning the project
4. Head of account as given in the original sanction letter
5. Amount brought forward from the previous financial year quoting the MOST's letter no. & date in which the authority to carry forward the said amount was given
 

(i)	Amount
(ii)	Letter No.
(iii)	Date
6. Amount received during the financial year (please give No & date of the MoST's sanction letter for the amount
 

(i)	Amount
(ii)	Letter No.
(iii)	Date
7. Interest accrued during the financial year, If any
8. Total amount that was available for expenditure (excluding commitments) during the financial year.  
(S.No. 5+6+7)
 

Rs.
-----
9. Actual expenditure (excluding commitments) incurred during the financial year up to 31<sup>st</sup> March
 

Rs.
-----
10. Balance amount available at the end of the financial year
 

Rs.
-----
11. Unspent balance refunded to the MoST if any (Please give details of Cheque No. etc.)
 

Rs.
-----
12. Amount to be carried forward to the next financial year (if applicable)
 

Rs.
-----

## UTILIZATION CERTIFICATE

Certified that out of Rs.\_\_\_\_\_ of grants-in-aid sanctioned during the year \_\_\_\_\_ in favour of \_\_\_\_\_ through the DSIR's letter No.\_\_\_\_\_ and Rs.\_\_\_\_\_ on account of unspent balance of the previous year carried forward, a sum of Rs.\_\_\_\_\_ has been utilized for the purpose of \_\_\_\_\_ for which it was sanctioned and that the balance of Rs.\_\_\_\_\_ remaining unutilized at the end of the year has been surrendered to Government (vide challan no.\_\_\_\_\_ dt.\_\_\_\_\_) / has been surrendered to DSIR/ will be adjusted towards the grants-in-aid payable during the next year / will be carried forward to the next year.

2. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned by the MOST have been fulfilled / are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised.

- 1.
- 2.
- 3.
- 4.
- 5.

Signature of  
Project Head / head of  
Host Organization with  
Seal and Date

Signature of  
Competent financial  
Authority of Host  
Organization with Seal  
and Date

Signature of  
Chartered  
Accountant/Accounts  
officer with Seal and  
Date

S.No. IX

**ANNEXURE-VIII**

**Format for submitting half yearly progress report**

IMPORTANT POINTS:

- i. Three copies of the report in the given format are required to be submitted.
- ii. The report should be sent even if project has not become fully operational. Please write NIL against items where there is nothing significant to report or if a particular item is not relevant.
- iii. The report should cover the work during the period ending 30th September every year.
- iv. Timely submission of report is essential to facilitate the release of funds.
- v. The report should be in the format given below with cover page followed by report under the sections indicated below.
- vi. The report should be discussed and finalized by the project team before dispatch to DSIR.

Title of the project: \_\_\_\_\_

DSIR Sanction letter: No. \_\_\_\_\_

Date of start: \_\_\_\_\_ Total cost of the project Rs. \_\_\_\_\_

Report for the period: From \_\_\_\_\_ to \_\_\_\_\_

Name of the Head of the Host Organization: \_\_\_\_\_

Name of the Host Institution \_\_\_\_\_

1. Objectives of the project (as stated in the sanctioned project proposal)
2. Summary of progress reported in the previous reports, if any.
3. Details of manpower involved in the project.

Name & Qualification	Designation	Work allotted
----------------------	-------------	---------------

4. Financial expenditure report

5. A detailed write up on the technical and financial progress of the project explaining reasons for shortfalls, if any and measures taken to correct the shortfalls. Write-up may include self assessment of the progress and revised dates of completion of project and activities.

## Common Research and Technology Development Hubs (CRTDHs)

6. Schedule of Research and technology development activities as targeted / achieved.

Activity	Progress till date.....		%		Remarks
	Start	Finish	Target	Actual	
a.					
b.					
c.					
d.					
e. Procurement of imported materials/ components etc., if any					
f. Fabrication, installation & commissioning of prototype/pilot plant.					
g. Performance/Validation trials / tests.					
h. Any other, please specify					
i. Final report					

6. Date(s) on which the report was discussed by the project team.

Name & Signature of Project Manager

Remarks of the Head of the Host Organization

Name & Signature of Head of the Host Organization with seal

**ANNEXURE-IX****Covering Letter and Checklist  
for the CRTDH Project Applicant Host Organizations****To:****Head CRTDH (BIRD-crf),**.....  
.....**Subject: Proposal for creation of Common Research and Technology Development Hub  
in ..... sector****Dear.....**

I am herewith submitting my/our application for Grant-in-aid under CRTDH in .....sector.

The following documents are enclosed (Check the box, if attached)

- ☐ Signed application.
- ☐ Undertaking from the Host Organization
- ☐ Detailed proposal including technology needs of MSEs, technology infrastructure to be created, MSE cluster size to be benefitted, highlight R&D and innovation advantage to MSEs
- ☐ Proposal Summary
- ☐ Documentary proof of interest (Client interaction reports) by MSE cluster
- ☐ Business model to run facility on cost plus basis
- ☐ Bar Chart with milestone and Deliverables
- ☐ Documentary proof of available infrastructure with Applicant Host Organization
- ☐ List of patents/publications
- ☐ Any other documents, please specify.....

**(Signature of Head of the Applicant Host Organization)****Place:****Date:**

**ANNEXURE-X****(FORMAT OF THE ACCEPTANCE LETTER)**

Ref. No.....

Dated.....

Head  
Common Research and Technology Development Hub  
Department of Scientific & Industrial Research  
Technology Bhavan  
New Mehrauli Road  
New Delhi – 110 016

Reference :- DSIR letter No. ... dated.....

Subject: Establishment of CRTDH in the industrial sector.....

Sir,

We accept to undertake the establishment of CRTDH in the industrial  
sector..... towards DSIR contribution of Rs..... (Rupees  
.....only) as contained in your letter referred above.

We accept in full the terms and conditions contained in your above referred letter, along  
with those contained in **Annexure**\_\_\_\_\_ attached thereto.

We also agree to execute the bond referred in your above letter. A copy of the terms and  
conditions duly signed are returned herewith indicating our acceptance of the same.

**Sd/-****(Authorized representative of the grantee institution)**