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**Invitation for proposals from MSEs/Innovators for working in the Common Research and Technology Development Hub (CRTDH) established at CSIR-Institute of Himalayan Bioresource Technology, Palampur**

**AIMS AND OBJECTIVES**

Innovation is the key for successful entrepreneurship. However, there are challenges in bringing innovative ideas to the markets. There are Start ups/MSEs with innovative ideas that may face difficulties in translation in to a marketable product/ process due to lack of an ecosystem for innovation including the sophisticated testing facilities, equipment/ infrastructure, intellectual support etc.

The Common Research and Technology Development Hubs (CRTDHs) have been established by the Department of Scientific and Industrial Research (DSIR) with an objective to foster industry-institution interaction and address the above problems faced in translational research by the MSEs thereby providing an eco-system for research and innovation in the country. The hub would provide technical support, infrastructure and sophisticated analytical as well advanced research equipment facility to the MSEs for carrying out competitive technological research to translate new ideas into marketable products as well as utilize the already developed technologies available in the CSIR laboratories for taking them to market.

Three such hubs have been established under the scheme, two at CSIR-IHBT, Palampur and CSIR-CCMB, Hyderabad in the sector of Affordable Healthcare and the third at CSIR-NIIST, Thiruvanthapuram in the sector of Environmental Interventions. **The CRTDHs are National Facilities operated on a non-commercial cost-plus basis for the benefit of MSEs as well as startups/innovators.**

**Focus Areas of DSIR-CRTDH-IHBT, Palampur**

The DSIR-CRTDH-IHBT has been set up in the area of 'Affordable Health' to carry out quality R&D in frontier areas of healthcare under Bio-Pharmaceutical ingredient development. The focus areas include:

1. To design and develop nutraceutical and natural colorant extraction and purification unit for pilot scale level for black carrot anthocyanin, beetroot betaine, mango peel carotenoids etc;
2. Quality, stability and functionality assessment of purified ingredients with respect to health and wellness;
3. Training and demonstration of pilot scale processing of colorant and nutraceutical ingredients for MSE's cluster development in the selected region;
4. Establishment of pilot scale design and installation of extraction and purification unit for mass processing of low cost Bioresources.

**Facilities available at CRTDH-IHBT**



## Application Performa-DSIR-CRTDH-IHBT



The DSIR funded Common Research & Technology Development Hub (CRTDH) is housed in the Pilot plant of Biodiversity Unit at CSIR-IHBT. .

**The CRTDH facility has the following equipment (already installed and functional) in addition to basic amenities:**

Sparkler filter	Encapsulation Unit
Pulveriser wet/dry	Centrifugal separator
Sorter and washer	Helicoloidal Juice extractor
Rotavapour Unit	Adsorption Column
Vaccum Packaging unit	Dehumidifier
Cold storage room	

**In addition, the following sophisticated equipment at CSIR-IHBT's Food and Nutraceutical facility are available for usage by the MSEs on case to case basis:**

NIR composition Analyzer	Sparkler Filter
Single Screw Extruder	Rotary Rack Oven
Brookfield Viscometer	Dehydrator
Ultrasonicator	Multi mill
Centrifuge separator	Pulverizer
Centri-therm evaporator	Membrane Filtration unit

**The following Research facilities at IHBT campus are also available for usage by the MSEs on case to case basis:**

Soil Testing  
Animal testing  
Pac Bio Analysis  
Oil Extraction from MAP  
Pesticide Residue Testing  
Tissue Culture

### **Working models**

#### **a. Flexible/ Virtual Model:**

The MSEs/Innovators may plan to work on their innovations themselves or opt for virtual presence through technical support from the professionals at IHBT. The equipment/facilities can be used by themselves or seek necessary help from



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Scientists of IHBT in consultation with the principal investigator for the DSIR-IHBT-CRTDH project. In this model, Intellectual Property remain with the MSEs/ Innovator. The patent cost will be borne by the company.

**b. Licensing Model:**

MSEs/Innovators having some idea but not confident of taking forward their ideas may explore licensing of innovative/ patented technologies developed by IHBT. These can be further developed into marketable products based on the experience and assessment of MSEs/Innovators.

IHBT-CRTDH would provide technical support, infrastructure and equipment usage to MSEs. The Intellectual Property remains with IHBT on the patented technologies. In case of any new development/ improvement of existing technology, the IP and the expenditure in filing the patent will be co-shared.

**c. The Joint Venture Model:**

Two or more MSEs can agree to pool their resources for the purpose of development of a new product/process/service. CRTDH will provide R&D support to MSEs for developing innovative products and to build confidence, strengthening and competitiveness by extending technical assistance. The IP will be jointly shared by the MSEs and IHBT for joint development of the product/ process.

**How to Apply?**

Proposals from MSEs/startups/innovators are invited by DSIR-CRTDH-IHBT as per the enclosed Application Performa. The filled proforma can be submitted anytime during the year to CSIR-IHBT. The proposals shall be considered by a Management Committee (MC) constituted under the scheme. Only the proposals approved by the MC shall be allowed access to the facility and undertake project work on the agreed terms and conditions for development of innovative products and processes.

**Charges for carrying out development work at DSIR -CRTDH-IHBT**

The charges for carrying out development work shall comprise of only direct expenses towards the following:-

- a) Cost of manpower of CSIR staff deployed and temporary project staff deployed.
- b) Cost of consumables/raw-material components.
- c) Cost of physical inputs/services/utilities.
- d) Equipment usage cost.
- e) Contingencies including extra payment envisaged e.g. for hiring infrastructure facilities, experts, computer time, information etc.
- f) Others (if any)



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**APPLICATION PROFORMA FOR SUBMITTING PROPOSAL UNDER DSIR-CRTDH-IHBT**

1. **Project title:**
2. **Name and Address of the Applicant/Company:**
3. **Company's Legal Status:**
4. **Name of Principal Investigator (PI):**
5. **Educational Qualification and experience of PI:**
6. **Annual Turnover of the company (preferably last 3 years, to be supported with Annual Report)**
7. **Team & Expertise available:**
8. **Likely time-frame for occupation:**
9. **Number of staff likely to be positioned at CRTDH:**
10. **Status of the work already carried out by the PI such as:**
  - a. Technology already developed and tested
  - b. Technology demonstrated at pilot scale
  - c. Patents filed
  - d. Technology certification received
  - e. Market survey and business plan completed
  - a. Consumers/ users feedback received, if any
8. **Technology/Products details**
  - i. Need and justification for the proposed project:
  - ii. Innovation merit and uniqueness of the technology/product:
  - iii. Category of technology/innovation (specify process/product/new Application):
  - iv. If the idea involves use of existing intellectual property, give details of the owner and arrangements of sourcing the innovation and terms of its commercialization:
  - v. Project summary giving broad details of the activities to be undertaken, action plan, major milestones/timelines, patenting, photographs of Innovation and expected duration of completion etc.
9. **Please comment on the environment and safety aspects of the project / product:**
10. **List of facilities available at DSIR-CRTDH-IHBT proposed to be used under your project:**
11. **List of facilities available at IHBT campus proposed to be used under your project:**
12. **End Product/Outcomes/Deliverables:**



**13. Any such products available in the market:**

**14. Market size and marketing strategy:**

**15. Any other information that you wish to share with us to help us in judging your application.**

**14. 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 candidature will stand cancelled and all my/our claims will be forfeited.

Place:

Date:

(Signature of the applicant)



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**Terms & Conditions to be agreed upon by MSEs/Startups/Innovators/industry for undertaking project work and usage of facilities under DSIR-IHBT-IHBT**

1. The MSEs/innovators shall acknowledge the utilization of DSIR-IHBT-CRTDH facility on the package of products developed under the programme and marketed.
2. The marketed product packaging will clearly state that the IHBT and DSIR will not be responsible for the quality and efficiency of the goods and that the sole responsibility of the product rests with the MSE/ Innovators with respect to quality and efficiency.
3. In case of any dispute arising out of the scope of work in terms of physical targets, the decision of Director IHBT shall be binding upon by MSME.
4. DSIR will in no way be responsible and/or undertake any liability that may arise on account of any manpower that may be engaged/deployed for work by MSME.
5. The Host Institute of CRTDH would put in place a proper mechanism for ensuring proper implementation and execution of CRTDH. The day-to-day operations of CRTDH will be executed through a Management Committee (MC), constituted with the approval of DSIR and headed by the Director IHBT.
6. All the project related activities of MSEs will be open to the Management Committee and DSIR Officials for monitoring and inspection. Concerned officers of DSIR may visit the CRTDH for ascertaining the progress of work and attempt to resolve any difficulties that might be encountered in the course of implementation.
7. The MSE/Innovator shall maintain separate project experimentation records and accounts that shall be available for review by the Management Committee members/Government Auditors.
8. The assets/equipment acquired by MSMEs and brought to the CRTDH facility shall need the approval of Director IHBT.
9. The approved MSEs/Innovators shall seek training from the concerned official on facilities and equipment at CRTDH before usage.
10. The usage of the equipment/ facilities at CRTDH should be booked before hand for usage and registered in the Log Book available at CRTDH after usage.



11. DSIR/IHBT will not have any liability towards the manpower appointed by the MSMEs working in the CRTDH for implementation of the project.
12. DSIR/IHBT will have no responsibility in case of any loss is caused to any life or property due to accident, fire or any other reasons. The Host Institute i.e. IHBT is required to provide appropriate safety and insurance measures to safeguard against any loss to human life and property related to CRTDH. The participating MSMEs working in the CRTDH are bound to adopt the safety measures put in place by IHBT to safeguard human life and property of CRTDH.
13. DSIR/IHBT will have no liability on account of any omission or commission of regulatory/statutory requirement by participating MSMEs/innovators and their companies.
14. It shall be the responsibility of the participating MSME to handle the effluents that are likely to be generated with reference to quality and quantity, and their handling provisions, bio-risks, gene containment facilities (if relevant) and commitment of compliance within the rule of the law, especially that of the state regulatory authorities. DSIR shall have no liability on the above.

**15. MONITORING:**

The project work of MSEs will be periodically monitored by MC constituted by DSIR.

**16. KNOW HOW/ INTELLECTUAL PROPERTY:**

The MSE/Innovator shall have the full rights on the intellectual property (IP) generated on the technology/product/process developed at DSIR-IHBT-CRTDH.

In case, the technology/product/process developed jointly with the host institute/CSIR, the IP shall be shared as per mutually agreed terms and conditions based on CSIR guidelines.

**17. DISPUTES:**

The DSIR, MoST does not own any responsibility for disputes arising out of IPR issues, however, the rules and regulations of CSIR shall apply and Director IHBT is empowered to take a view as deemed fit.

**18. MONITORING OF PROGRESS:**



The progress of the approved project taken up by MSEs shall be periodically reviewed by the Management Committee.

**19. TERMINATION OF THE PROJECT:**

The MSEs/Innovators are free to terminate the project at any stage by way of written communication and on payment of direct cost incurred in the project.

**20. MODIFICATION OF TERMS & CONDITIONS:**

The above terms and conditions may be modified by the competent authority of DSIR, MoST only. The MSEs/Innovators can seek approval of DSIR through IHBT for any deviation in the terms and conditions with proper justification.

**21. ARBITRATION:**

Any dispute arising during the course of the project shall be referred to the sole arbitrator appointed by Secretary, DSIR and the arbitration proceedings shall take place under the "Arbitration and Conciliation Act, 1996"

**22. REGULATORY APPROVALS:**

All the regulatory and statutory approvals for the product/process development and for marketing should be taken by the MSE/Innovator. DSIR and CSIR/IHBT shall not hold any responsibility for delay and denial of approvals.





## Application Performa-DSIR-CRTDH-IHBT



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### UNDERTAKING OF THE INNOVATOR/ MSE/ INDUSTRY

I / We agree to the above terms and conditions in connection with usage of facilities and undertaking work in the DSIR-CRTDH-IHBT facility for our project concerning “\_\_\_\_\_”

Name :

Signature

Designation and :

Thumb Impression

Organization

(If representing the organization)