EOI GUIDELINES

&

APPLICATION FORMAT

FOR

INVITING R&D PROPOSALS

CENTRE FOR HIGH TECHNOLOGY
(MINISTRY OF PETROLEUM & NATURAL GAS)
OIDB BHAWAN, TOWER 'A', 9TH FLOOR,
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EOI Guidelines & Application Format for Inviting R&D Proposals

Centre for High Technology (CHT) established as dedicated technology cell of MoP&NG, is engaged in promoting indigenous technologies through sponsoring R&D projects and their commercialisation in the downstream sector. CHT co-ordinates activities related to "Scientific Advisory Committee (SAC) on Hydrocarbons of MoP&NG". SAC consists of eminent scientists / academia / industry professionals and its mission is to Promote Application of Science and Technology in the Downstream Hydrocarbon Sector.

For broader participation, mechanism of inviting research proposal through Expression of Interest (EOI) route has been introduced since July, 2016. New R&D project proposals are taken up in the identified areas for grant-in-aid and aimed at development of new product or process, or major improvement in an existing process or product with attractive commercialisation potential. The proposals are received from R&D and academic institutions/organisations & presented before Scientific Advisory Committee (SAC) on Hydrocarbon of MoP&NG for recommendation and approval from Executive committee (EC)/Governing Council (GC) of CHT.

Following are the guidelines for inviting R&D proposals through EOI:

Objectives

a. Development of innovative product and process technologies for hydrocarbon / oil sector and alternate energy fuels
b. Strengthening the interface between R&D establishments and Industry
c. Accelerating commercialization of products/ processes successful at lab stage

Sectors of Interest

Downstream Hydrocarbon sector, Alternative & Non-conventional fuels for Transport

Project Proposals

CHT invites new R&D project proposals through EOI throughout the Calendar Year. Projects should aim at development of a new product or a process, or major improvement in an existing product or process, with attractive market potential. The projects should result in significant benefits to hydrocarbon sector / oil industry.

Procedure for approval

1. Receipt of project proposals
2. Screening by Select Committee of SAC
3. Recommendation by the SAC
4. Approval by EC/GC of CHT
5. MOU signing for the approved project proposal

Nature of Proposals

- Refinery Residue to Clean Fuels
- Desulphurisation of Diesel and Gasoline
- Coal / Gas / Biomass Gasification

- Low Level Heat Recovery
- Alternative Energy: Bio-fuels and Hydrogen
- Carbon Capture
- Molecular Engineering
- Hydrogen as Fuel - Production and Storage
- Process Intensification
- Photo Synthesis

Development of equipment for self-sufficiency in vulnerable areas and Policy related matters may also be considered by SAC for funding

Activities Supported

Partial financial support is provided by CHT primarily to cover development, cost of pilot plant, cost of process equipment, consumable cost, test and evaluation of products, user trials etc. The proposal deliverables should have innovative element and preferably address the following aspects:

a. Development of a new or improved product resulting in prototype development and ending with demonstration in commercial environment
b. Development of a new or improved process resulting in establishment of process / technology know-how, development of process equipment and demonstration in a pilot plant
c. Indigenization of imported technology
d. Technology development projects for improvement of products / processes
e. Development & demonstration of technologies for use by cluster of industries
f. The proposal should have progressed to minimum Technology Readiness Level (TRL -3) as detailed in Annexure -1.

Eligibility Criteria

- Oil industry (PSUs / Private with PSU partner) organisations
- DSIR recognised Research Institutes / CSIR Labs/ Educational Institutes of repute (like IIT, NIT, etc.) with financial commitment from one of the PSU oil companies
- Individuals with financial commitment from one of the PSU oil companies

Evaluation Procedure

- The project proposals are initially scrutinized in-house by CHT. During initial examination, proposal is evaluated from eligibility point of view along with expected outcome and its relevance with scheme objectives outlined in guidelines. Required additional information is sought from applicants, wherever necessary.
- Chairman SAC nominates Screening Committee for shortlisting the proposals for consideration by SAC.
- The applicant is required to give a detailed presentation for 15-30 minutes before the Screening Committee describing the features of the R&D Project and the expected outcome with time-lines. The Committee also deliberates upon cost involved and likely benefit to the target group.
- The Committee scrutinises all the proposals, advises modifications, if required and shortlists for consideration of SAC.

- Applicants of projects which are not approved by Screening Committee are informed along with reasons.
- SAC deliberate on all the shortlisted proposals and recommend the same for approval by Executive Committee (EC) / Governing Council (GC) of CHT.
- CHT signs Memorandum of Understanding (MOU) with participating agencies and a nodal agency is decided among participating agencies by CHT. Subsequently based on project cost, CHT forms Project Monitoring Committee (PMC) / Project Steering Committee (PSC) by taking one coordinator from each participating agency for monitoring of the project progress.
- Grant-in-aid is released based on the expenditure, utilization certificate and the project elements as defined in MOU.
- The progress of the project is reviewed regularly by PMC/PSC and the status is presented to SAC.
- Projects closure/foreclosure is decided by SAC.
- Based on SAC recommendations, nodal agency submits the final report to CHT along with way forward.

Parameters for scrutiny of Proposals by Screening Committee

S.N	Criteria	Remarks
Necessary Conditions		
1	Relevance to downstream sector: Link to Position Paper	
2	Whether the project is at translational level (The proposal should have progressed to minimum Technology Readiness Level (TRL - 3) as detailed in Annexure-1).	
3	PSU tie-up / interface	
Checklist		
4	Innovativeness, potential as breakthrough/ game changer	
5	Supported by Literature scan & benchmarking	
6	Capability for Scale-up and sustained development	
7	Commercialisation potential	
8	Proposed model for scale up and commercialisation	
9	Realistic deliverables, timelines	
10	Financials: Cost details, funding requested vs. contribution, justification	
11	Linkage with Next phase	

APPLICATION PROCEDURE:

Application format for submitting project proposal is given in **Annexure-2**. Proposals (in 2 hard copies and 1 soft copy) on the above lines are invited from Individuals, R&D Establishments, Technical Institutions and Industries as per the eligibility criteria. Proposals should be forwarded by the Director/ Head of the organization to:

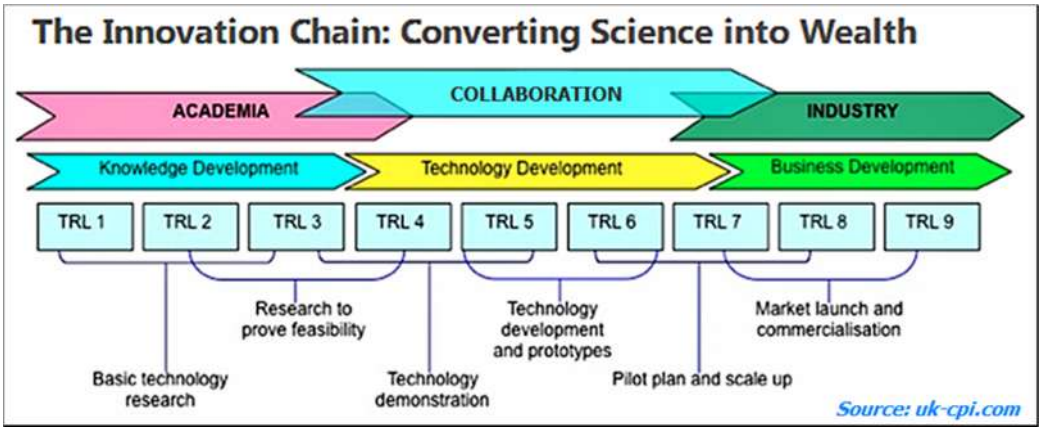
Executive Director
Centre for High Technology
9th Floor, OIDB Bhawan,
Plot no. 2, Sector – 73,
NOIDA – 201 316 (U.P.)
Ph: 0120-2593701

Annexure -1

Sub : Technology Readiness Level (TRL)

Technology Readiness Level (TRL) is a measure used to assess the maturity of evolving technologies prior to incorporation into a system and subsystem. The innovation channel is described in nine levels starting from TRL 0 (Idea) to TRL 9 (Full Commercial application). Lower TRL indicates high risk and as the project reaches higher TRL levels, the risk involved in the project is mitigated.

As can be seen from above, the proof of concept of the technology is established once TRL 3 is achieved. At this level, the basic technology research is considered to be completed through involvement of Academia and testing in Research Laboratory. Thereafter, there is a need to develop and demonstrate the technology. In general, collaboration with Commercialisation partner brings in innovation at subsequent stage till TRL 6. Further development may even require involvement of engineering partner going through demonstration to full commercial scale plant.



Annexure-2

Format for Submitting Project Proposal

The R&D Project Proposal submitted to CHT for funding by OIDB through Scientific Advisory Committee should cover the following points:

1. Project Title
2. Executive Summary of the Proposal
3. Principal Co-coordinators & Investigators, Likely Partners and their particulars + brief CVs
4. Objective
5. Introduction and background
6. Current Status / developments in the proposed area
7. Novelty of the Proposal
8. Proposal details and Methodology
9. Whether the proposer is satisfied that proposal has progressed to minimum Technology Readiness Level (TRL -3) as detailed in Annexure -1. Please provide details.
10. Project schedule / timeframe with milestones
11. Cost estimates / phasing of expenditure – covering detailed break-up about recurring & non-recurring costs like equipment costs (with justification), Manpower/Salaries, Consumables, Travel, Contingency/Overheads, Consultancy, etc.
12. Scope of Work and Work Plan (Activity-wise)
13. Resources Utilization (internal & external like infrastructure/facilities/manpower)
14. Responsibilities of other Collaborators, if applicable
15. Bar chart of Activities & milestones
16. References
17. Commercialisation Potential of the Proposed study
18. Deliverables (product, technology, report, software, IPR, data, etc.)
19. Payment Terms, if any (Normally CHT terms are followed)
20. Whether the research lab under the Institution, recognized by Government / DSIR
21. Linkage with Next Phase of development

DECLARATION

I/We hereby declare that

i) I/We have not undertaken this project earlier with any other organization

ii) I/We have not taken any financial help for this project from any other institution

iii) In case of receipt of grant-in-aid from CHT, financial help shall not be taken from any other Govt. organization against this project.

iv) Items, which are to be purchased are listed with estimated cost of each.

Signature

Date: Principal Investigator

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