

Call for Project Proposals under the Waste Management Technologies Program

DEPARTMENT OF SCIENCE & TECHNOLOGY

The Department of Science & Technology (DST) has initiated a technology development program in the name of "Waste Management Technologies (WMT)" during 2015 aligning to Swachh Bharath Abhiyan. *Waste Management encompass a variety of interventions in* the generation, prevention, characterization, monitoring, treatment, handling, reuse and ultimate residual disposal of solid wastes. The program aims to promote the development of suitable technologies with potential to ameliorate the environmental load from the huge amount of residuals generated by industrial development and consumption lifestyle. The objectives of WMT includes (i) Take stock of technological development, assess, analyse and look for material recycling systems with low environment loading and improve upon them or find better alternatives (ii) Develop waste management technologies that can be adopted in small & medium scale enterprises in order to improve their productivity and global competitiveness (iii) Establish techno-economic feasibility of proposed methodologies/ technologies.

DST is inviting proposals in the following specified areas of solid waste for financial support

S.No.	Thrust areas
PART-A	
1	Treatment and possible reuse of fouled membranes
2	Smart/AI system for operation and maintenance of waste treatment systems
3	Methods for recycling C&D waste including non-concrete part
4	Agricultural waste management – Stubble management, including Bamboo processing
	waste- value added products, silica extraction, etc, (Non-biological)
5	Technologies for Biomedical waste management including Ayurveda hospitals
6	Management of plastics and non-recyclable packaging material
7	Industrial Hazardous & non-hazardous Wastes, including Steel Industry and Mining
	Waste
8	Recycling of dredging material/sand for construction activities
9	Management of Sanitary Landfill sites and leachate treatment (Non-biological)
10	Management of waste from Power Industry: Management of waste produced due to
	increase in the installation and commissioning of Flue Gas Desulphurization (FGD)
	systems in Thermal Power Stations, Disposal, recycling, use of material of storage
	batteries of all chemistries, solar panels, Wind turbine parts, other power generating
	and transmission and distribution equipment and material, Disposal/recycling of
	insulating material of line insulators (porcelain glass, polymer) etc.
11	Management & recycling of End of Life Vehicles, Tyres, Batteries, Catalytic
	Converters and other subcomponents
PART-B	
12	Improvement/customization of traditional technologies for current solid waste
	management practices

POINTS TO BE KEPT IN MIND WHILE SUBMITTING PROJECT PROPOSALS

- Proposals should be submitted <u>ONLY BY ONLINE MODE</u> (<u>https://onlinedst.gov.in/Login.aspx</u>) by Scientists/ Engineers/ Technologists working in Universities and other Academic institutions; R&D institutions/ laboratories having adequate infrastructure and facilities to carry out R&D work. Applicants should register as a PI in DST's Online Portal. Then PIs may get an option of "submit proposal", under which calls are open. PIs may submit the proposal under the division of "Technology Development and Transfer" followed by the scheme of "Waste Management Technologies".
- 2. PI should have relevant experience (patents, prototype, technology demonstration, etc).
- Proposals falling under TRL 4 to 7 [TRL 4 Technology validation in lab, TRL 5– Technology validation in relevant environment, TRL 6 – Technology demonstrated in relevant environment, TRL 7 – System prototype demonstration in operational environment] (Ref: European Union standard definition), are only to be submitted. Basic R&D proposal leading to only research publications will not be supported under this call.
- 4. The technology demonstration plan should be clearly spelled out with achievable milestones, time lines, justifiable budget requirement and engagement with prospective technology transfer partners or technology transfer facilitating bodies.
- 5. Financial support will be provided only for temporary staff salaries, equipment, consumables, domestic travel and other miscellaneous items. No support will be provided towards basic infrastructure, buildings and International travel. Proposals should have participation of relevant Industry/stakeholder.
- 6. It is envisaged that the end product of development shall be transferred to industries/suitable stakeholder for technology implementation. Hence, project should be proposed with mandatory industry/suitable stakeholder participation, clearly stating the technical as well as financial terms of participation. No financial support will be provided to industry. An endorsement letter from the participating industry/stakeholder with a detailed breakup of their contribution for the proposed project.
- 7. Fund support under non -recurring grant for required equipment's will be given only if the same facility is not available in the PI' institution or nearby institutions. No major infrastructure will be funded.
- 8. The PI can submit only one proposal against this DST-WMT- 2020 Call. Submission of more than one proposal from a PI, would liable to be disqualification
- 9. It is desired to have the contribution of Host Institution/Grantee Institution for the capital cost of the project.
- 10. The Engineering flowchart with required mass balance / stoichiometric should be included in the proposal.
- 11. The quarterly deliverables should be clearly mentioned in the proposal in the form of a Gantt chart/ matrix.

For any queries related to call, you may please feel free to write to **Dr. Krishna Kanth Pulicherla, Scientist, TDT Division, DST (Email: kkpulicherla.dst@gov.in).**

Last Date of Submission: 30th November, 2020