

Indo-German R&D Cooperation

“International Partnerships for Sustainable Technologies and Services for Climate Protection and the Environment (CLIENT)”

Call for pre-proposals

1. Funding purpose and legal basis

1.1 Funding purpose

The aim of the funding measure is to introduce model projects to help establish and expand international partnerships in research, development and the application of environmental and climate protection technologies and services and to trigger the development of lead markets in this area. In addition to technological aspects, this also includes socio-economic issues, questions of good governance, and stakeholder involvement at an early stage.

The topics investigated in the project should be far-reaching and important enough to have a significant local impact and international relevance. At the same time, the project should boost and develop the economic competitiveness of Germany and India and contribute to the creation of new jobs.

1.2. Legal basis

Project grants will be awarded in accordance with the present funding regulations of the respective partners in Germany and India. The final selection shall be based on the common selection criteria upon the international panel decision. There is no legal entitlement to funding. The funding provider will take a decision after due assessment of the circumstances and within the framework of the budget funds available.

2. Object of funding

The central aim of the funding measure is to carry out needs-driven, collaborative model projects for the development and implementation of environmentally friendly technologies that are specifically adapted to both countries, including the development of prototypes or pilot applications. The focus is on the development or adaptation of integrated environmental technologies. The study of so-called “end-of-pipe” technologies is not ruled out, as long as they are effective solutions. A further focus is on innovative services, including preliminary and accompanying services for technologies.

The collaborative projects should be jointly funded by science and industry. The aim is to carry out economically significant, high-risk and innovative research and development projects in selected fields. Integrated approaches that study technology

and service developments in the context of the economic, social and environmental conditions in both partner countries have a high priority.

Technological or service innovations for sustainable development in one of the following areas are to be addressed:

- 1. Climate protection:** Reducing emissions of CO₂ and other greenhouse gases in all industry areas; capturing CO₂ and using it as a chemical raw material; increasing energy efficiency in production in order to reduce greenhouse gas emissions; environmental protection in products and production / cleaner production; business management; adaptation to climate change
- 2. Resource efficiency:** Obtaining and managing resources, environmental protection in production / cleaner production, resource efficiency (resources, materials), resource substitution, closing material cycles, recycling
- 3. Land management:** Innovative land use methods (e.g. precision farming), land recycling technologies, adapted technological infrastructure systems, applied remote sensing and geo-information services for integrated regional planning
- 4. Water management:** Regional / urban water resource management, improved water infrastructures in terms of energy and consumption (e.g. production of drinking water, wastewater treatment, extraction of substances in water and irrigation technologies), water remediation technologies, planning instruments for the water sector (e.g. GIS, remote sensing and DSS)

In addition, both country-specific and general networking and accompanying measures are to be carried out.

3. Recipients of funding

R&D pre-proposals may be submitted jointly by Germany-based commercial companies, institutions of higher education, and non-university research establishments to PT-DLR in Germany and India-based institutions of higher education, public funded R&D and university research establishments to DST in India.

The participation of small and medium-sized enterprises (SMEs) from both countries is expressly welcome. For the European Commission's definition of SMEs, please see: http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/index_en.htm

4. Prerequisites for funding

The prerequisites for funding are:

- Cooperation between independent partners from industry and research, each of whom provides an independent contribution towards carrying out the joint research and development tasks
- Significant industry participation (particularly of SMEs): at least one relevant stakeholder from the value chain (e.g. pre-fabrication, production, usage, recycling) each from India and Germany.
- Participation of at least one – preferably more – key institutions (preferably companies or research institutions), with their own contributions to research or development

- Due to the interdisciplinary approach, the active participation of further stakeholders who cannot provide an independent research contribution (e.g. public authorities) is also important from each side.
- The interests of the various partners in exploiting the results must be clearly recognizable and the transfer opportunities must be clearly described.

The collaborative projects should initially have a duration of three years.

5. Type and scope of funding

Germany: Funds will be provided as non-repayable project grants for project partners from Germany. The grants can be spent to cover the project related cost of staff, materials, and equipment. No funding can be provided for building investments.

India: Funds will be provided as non-repayable project grants to institutions of higher education, public funded R&D and university research establishments in India. No grant is available to the commercial private companies. No funding can be provided for building investments

6. Procedure

6.1 Involvement of a project management organization and request for documents

Potential applicants are advised to contact the national contact points before writing proposals to carefully check the specific national application and funding conditions. The respective contact points are:

- in India:
Department of Science & Technology (DST)
Technology Bhavan
New Mehrauli Road
NEW DELHI-110016

Shri R. K. Sharma, Scientist-D (International Division)
Phone: + 91 (0)11 / 26567373/ 26590244
Fax: + 91 (0)11 / 26862418
E-mail: sharma_rk@nic.in
- in Germany:
Project Management Agency - Environment, Culture, Sustainability
Part of the German Aerospace Center (PT-DLR) on behalf of the German
Federal Ministry of Education and Research
Heinrich-Konen-Str. 1
53227 Bonn, Germany

Dr. Olaf Pollmann
Phone: +49 (0)228 / 3821-1535
Fax: +49 (0)228 / 3821-1540
E-mail: olaf.pollmann@dlr.de

6.2 Submission and selection of project outlines for collaborative R&D projects

In the **first step**, detailed project outlines should be sent to the project management agency by the following deadlines:

31st August 2011

In consultation with the proposed partners, the German project coordinator should submit the joint project outline in German and English to the project management agency PT-DLR via the Internet portal pt-outline (<http://www.pt-it.de/ptoutline/application/clientfe2>).

The completed pt-outline forms should be accompanied by a clear project description which can be evaluated without further investigation and which is structured as follows (length in German / English: up to twelve pages each, Arial 11, 1.5 spacing):

- **Cover page:**
Subject of the proposed collaborative project; partner country; classification under one of the four subject areas listed in section 2 including key words; total costs and duration of the project; number and type of partners; address, phone number and e-mail address of the submitter of the pre-proposal
- **Background:**
Including: ecological and economic relevance in the partner country, needs of companies
- **Targets:**
Description of the project goals, based on the current state of the art of technology and know-how. Detailed list of work packages for each partner.
- **Proposed solution:**
Description of the necessary research and development work as well as own previous work on which the applicant can build
- **National and international cooperation partners:**
Distribution of work, description of the participating partners from research institutions and companies (core competences, performance, infrastructure, number of employees, group affiliation if applicable, etc.), cooperation with third parties
- **Sustainability potential:**
Ecological and socio-economic effects (qualitative and quantitative)
- **Estimated costs:**
Details of anticipated costs and contribution of own funds, rough work plan and schedule, personnel costs; separate for German and Indian partners based on the principle: each side carries their own costs)
- **Commercialization of results:**
Chances of success, application potential and implementation concepts for the commercialization of the project's results after the end of the funding period (utilization plan)
- **Measures for the protection of intellectual property/IPR:**
See: http://www.bmbf.de/pub/know_how_internationale_kooperation.pdf (not obligatory in the case of service innovations)
- **Additional information about India:**
Needs and expected results in India, existing contacts and previous

collaborations between Germany and India, information about the participation of relevant stakeholders, market analysis and competitive analysis of the proposed research topic in India

- Applications must include a declaration of intent signed by representatives of the participating scientific and industry partners regarding their participation in the project.

The evaluation of the project outlines received will involve external experts and will be based on the following criteria:

- **Contribution to sustainable development:**
Environmental protection (qualitative and quantitative, e.g. energy and resource efficiency, avoidance of harmful substances) and socio-economic effects (cost reduction for companies, job creation and preservation, socially responsible development)
- **Innovativeness:**
Quality of the technology or service in question, novelty of the issues and proposed solutions for the partner country, level of risk
- **Cooperation between science and industry:**
Interdisciplinary, adopting new results from other fields of knowledge, concept for coordinating the collaborative project, SME participation
- **Feasibility and success prospects:**
Convincing concept for the utilization of the results, opportunity/risk assessment for long-term implementation, applicability and transfer of results
- **Partner country analysis:**
Analysis of the relevant market, analysis of the legal conditions; and value addition through collaboration.

The pre-proposals would be evaluated within four months of the submission deadline. Suitable pre-proposals (project ideas) will then be selected for submission of full proposals (two stage process). Applicants will be informed in writing of the results of the selection procedure.

6.3 Submission of formal applications for collaborative R&D projects

In a **second step**, applicants whose pre-proposals have been evaluated positively will be invited to submit a formal, detailed application for funding on which a decision by DST and BMBF will be taken jointly after final evaluation. The evaluation will be carried out on the basis of the criteria listed above, with a special emphasis on the work plan and milestones.