
Office of the Technology Development Missions
Indian Institute of Science
COVISANT: A New Initiative
July 2007

1 Background

The Technology Development Missions (TDM) programme is an initiative of the Ministry of HRD to foster collaborative work among IISc, IITs, and the Indian Industry in mission mode. Phase I of TDM (1994-99) was quite successful with as many as **10** technologies being transferred to the industry. Currently, Phase II of the programme is being explored. The mission areas identified for Phase II are: (1) *Health-care Technologies* (2) *Energy Systems for Rural India* (3) *Green Technologies* (4) *Automotive Technologies* (5) *Disaster Mitigation and Management*. There are 23 projects proposed from IISc under the five mission areas above. Approval is awaited from the Ministry of HRD to commence the TDM Phase II Projects.

The success of the TDM Phase I program has proved that high quality collaboration is achievable between academic institutions and the industry. Innovative new technology/process development in close collaboration with the industry continues to be a critical need in our country. There is now an urgent need to enhance and scale up such collaborative activity to much higher levels. Since it may be some more time before the TDM Phase II projects obtain the Ministry approval, it is proposed to start a new initiative, COVISANT, at the Institute.

2 The COVISANT Initiative

The main objective of the COVISANT (Collaborative Visionary New Technologies) Initiative *to promote innovative and contemporary technology development in collaboration with the Industry*. The motivation is to enhance the TDM model by eliciting a high level of interest, participation, and commitment from the industry partner.

The vision of the COVISANT initiative is to evolve, in collaboration with the industry, a self-sustaining model for creating IP and wealth for the Nation. The mission of the initiative is to develop, in the next few years, several exemplary and impactful technology/process innovations in active collaboration with the industry.

Each COVISANT project will strive towards conceptualizing and developing a visionary new technology or process which is of contemporary interest and value to IISc, the partici-

pating organization, and India. The nature of the innovation could be of any of the following types:

- *Early research and early design* to envision and create a new technology or new process, leading to IP creation
- *Design and development innovation* to design and develop a complete prototype product starting from a novel idea and concept
- *Any innovative activity* in the life-cycle of product/technology development that IISc and the partner are willing to work on with a high level of conviction.

The COVISANT projects constitute a *fresh initiative*. They do not have any overlap with the 23 projects already proposed as part of TDM Phase II. The outcome of a COVISANT project should preferably belong to one of the following categories:

- Creating high impact to the Nation, Society, and Citizens
- Having a high potential for wealth creation for the Nation
- Development of a contemporary, world class technology with a high level of IP content
- Development of completely indigenous technology for enabling India's self-reliance (fabrication of high technology equipment, etc.)

3 The COVISANT Model

Each COVISANT project will be funded jointly by the IISc and an industry. The industry partner is expected to make substantial cash contribution, in the range of 50 % or more of the project cost. Since the partner commits substantial resources to each COVISANT project, the level of participation from the industry partner is expected to be high and the project vision is driven by both IISc and the partner.

Revenue generation in the COVISANT is possible through various routes: exclusive technology transfer to an industry partner, non-exclusive technology transfer to multiple industry partners or industry customers, royalties, etc.

4 COVISANT Logistics

- The COVISANT program will be run through the office of TDM at the Institute.
- The number of COVISANT projects at any point of time would be kept small.
- The total budget of a typical project could be in the range of Rs. 50 Lakhs to Rs. 100 Lakhs, over a three year period. The industry contribution shall be preferably as high as 50 percent (cash), with the rest coming from IISc.

- The IISc budget for the COVISANT activity will include the project funding and the operational expenses of the TDM office. This budget will be available under the name of COVISANT account held.
- A suitable overhead will be included as part of the industry contribution of each project.
- Other appropriate operational details of the COVISANT program will be worked out by the TDM Advisory Committee.

5 Selection and Monitoring of Projects

Each project proposal will be rigorously reviewed, improved, and crystallized with the expert help of knowledgeable researchers from the academia and the industry. The proposal will have clearly defined milestones and deliverables. The project proposal will have a science and technology part as well as a business development part. The final clearance for each project will be given by the Director, on recommendation from the TDM Advisory Committee.

Each project initiated will have a *project steering committee* (PROSC). The PROSC for each project will consist of the members of the TDM Advisory Committee and at least two experts in the area of the project. The presence of the TDM advisory committee members will ensure that the monitoring process is uniform across different projects. The PROSC for each project will perform all activities from selection to completion of the project, including continuous monitoring, advising, and steering of the project.

6 Technology Transfer and IP Sharing

Each project will have an MOU with an IP Clause as per IISc policies. The MOU will clearly articulate terms and conditions for technology transfer, exclusive versus non-exclusive issues, royalty clauses, patenting charges, etc. The sharing of IP and other benefits accruing out of the COVISANT projects will be carefully determined taking into account the fact that IISc is investing its financial, faculty, and student resources into COVISANT projects in a substantial way.

7 Contact Address

For more details on the COVISANT initiative, please contact Prof. Y. Narahari (2773, 2468) or Mr B.N. Balaji (2988). You may also look up <http://lcm.csa.iisc.ernet.in/TDM/> or send email to hari@csa.iisc.ernet.in or tdm@admin.iisc.ernet.in.