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SBIRI supports 35 projects

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According to the latest Credit Suisse report, India is the latest entrant to the $1 trillion economy club of 12 nations. The Indian economy growing at close to 9 percent for the past four years has signified the growth of a number of sectors and biotechnology is one of them.

The Department of Biotechnology (DBT) views its role as a general enabler in the development of biotechnology. The department is committed to support the fledgling Indian biotech industry to have well-structured enabling mechanisms put in place, promote innovation and ensure translation of knowledge to products and processes which can be effectively commercialized. Together, the industry, academia and the government will have to ensure the growth of the biotech industry. "Small Business Innovation Research Initiative (SBIRI)" is one of the steps towards supporting the Indian biotech industry.

The launch of the SBIRI in September 2005 opened new ways for early stage funding to private industries for high risk, innovative and commercializeable product proposals. This unique scheme, as it expands in scope and coverage, will provide a boost for the biotech sector. The future challenge is to enable the Small and Medium Enterprises (SMEs) to generate new ideas, take more risks and support late-stage-development for whatever proof of principle has been generated. The scheme has taken off very well and DBT has received 71 full proposals and 17 concept proposals within the first two months itself.

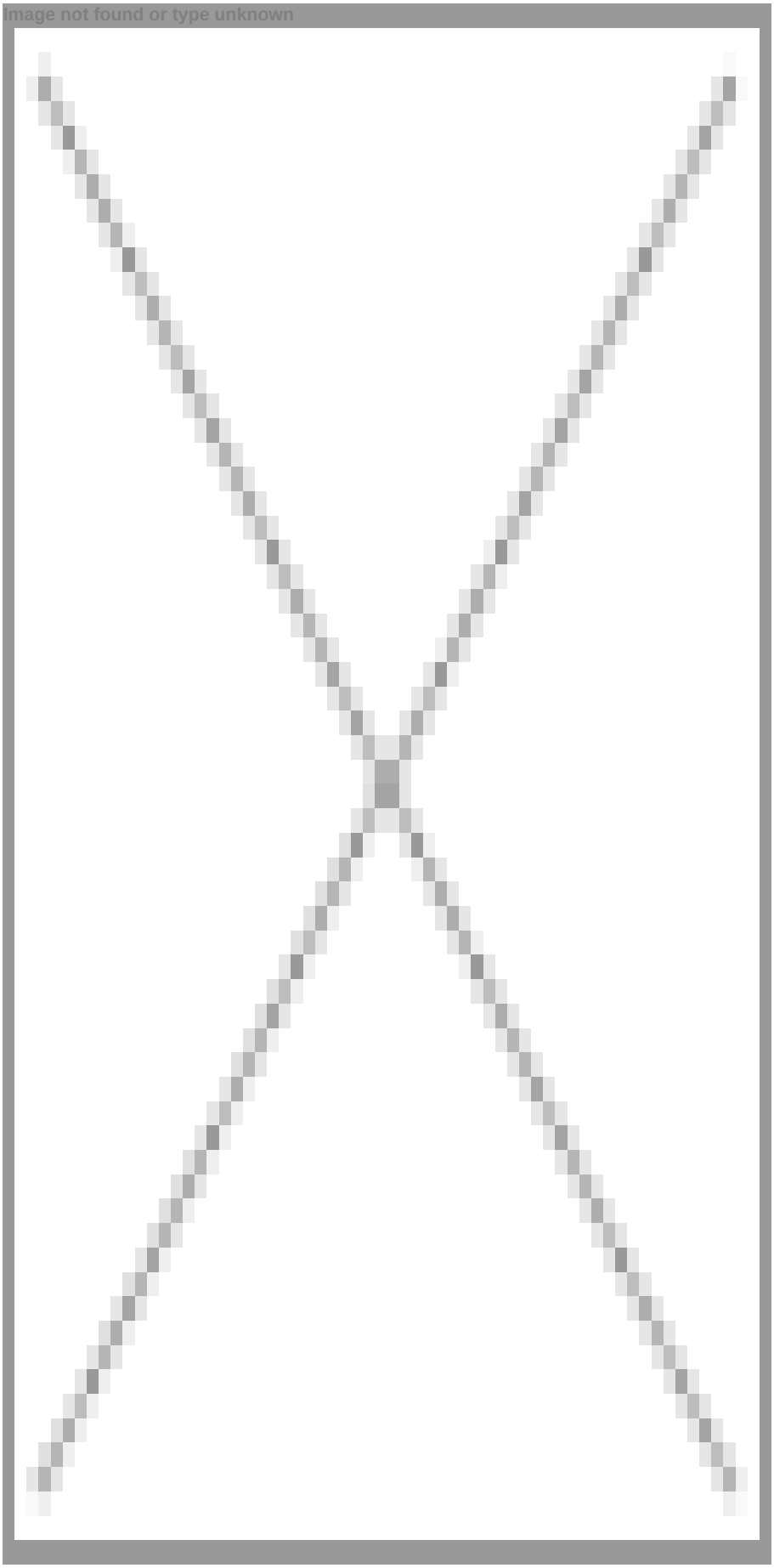
Core content of the scheme

The SBIRI supports high risk, innovative pre-proof of concept research and early stage development (phase-I) projects as well as late stage development and commercialization as (phase-II) projects.

The process of obtaining proposals and their review is summarized in Fig.1. The Technical Screening Committee (TSC) shortlists the proposals initially, followed by presentations by companies. Final recommendations on the proposals are made by the inter-ministerial high-powered Apex Committee of SBIRI (ACS). The department processes in two batches overlapping

with each other in order to reduce the processing time considerably.

The proposals can be made by an industry alone or jointly by an industry with public partner(s) or by a group of industries with or without public laboratories. To be eligible to seek funding under the scheme, an industry registered in India should be a small business unit having not more than 500 employees in R&D with at least 51 percent shares owned by Indians or independently operated. The R&D unit of the company should be recognized by DSIR or the company should own the patent rights on the work done which would be utilized in the proposed study. The outline of the funding structure for Phase-I and Phase-II type of projects is given in Fig. 2.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Response of biotech industry

The scheme has been advertised six times till the end of 2007. In the first two batches, the response from the industries was very encouraging. Thereafter, the inflow of proposals was somewhat lesser. The response of the industry during the sixth batch is substantially improved. In six batches, a total of 361 proposals have been received by the department (Fig.3).

The distribution by sectors is as follows: health sector (36 percent), industrial product and process development (22 percent), agriculture and allied areas (20 percent), instrumentation and devices (11 percent), food biotechnology (4 percent), bioinformatics (4 percent) and environmental biotechnology (3 percent) (Fig. 4). Of the 361 proposals, 270 (75 percent) are for early stage research categorized as Phase-I study and 73 (20 percent) are for scale up and late development of research leads in Phase-II category. A few proposals (5 percent) are a combination of the two (Fig. 5). The trend indicates that the industry is seeking support under SBIRI mostly for early phase research, which is the main purpose of the scheme. Out of 361 proposals received by the department, 142 are collaborative proposals indicating that the process for generating ideas by bringing users and producers of technology together has been strengthened through SBIRI.

A total of 237 companies have approached the department for SBIRI support. The companies from 18 states/union territories have shown interest in the scheme. Among them, Karnataka, Maharashtra, Andhra Pradesh, Tamil Nadu and Delhi are top five hubs for SBIRI applicants (Fig.6). The response from the industry in the southern region is predominant (Fig.7). City-wise analysis indicates that the research intensive biotech industry is currently concentrated in five major clusters -Bangalore-Mysore, Hyderabad-Secunderabad, Mumbai-Pune-Thane, Chennai and Delhi (Fig. 8).

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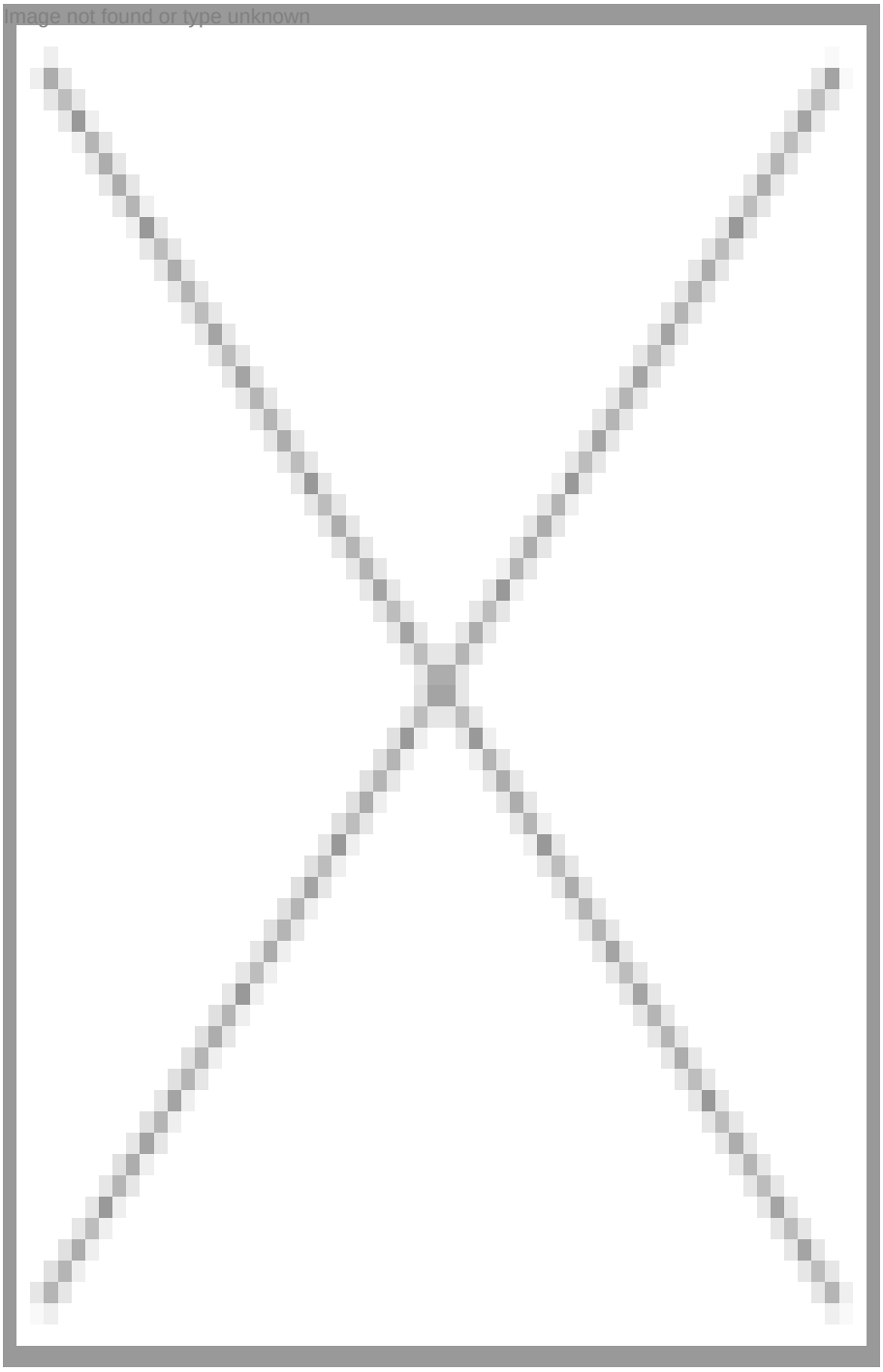

Status as on January 31, 2008

The scheme was launched in September 2005. Actual sanction of the projects started in the end of December 2006. In a short span of 13 months, 35 projects worth Rs 142 crore have been supported. The details are indicated in Fig.10. The private sector has committed investment of around 48 percent of the total. The remaining would be from SBIRI funds of the government. Out of the 35 approved projects, 15 are in the health sector, nine are for industrial products and process development, seven are in agriculture and allied areas and four are in the area of bioinstrumentation and devices. Twenty out of 35 are Phase I projects. The department has released a sum of Rs 39.47 crore to the respective companies so far for implementation of the projects. The Project Monitoring Committees (PMCs) have been constituted for each funded project separately.

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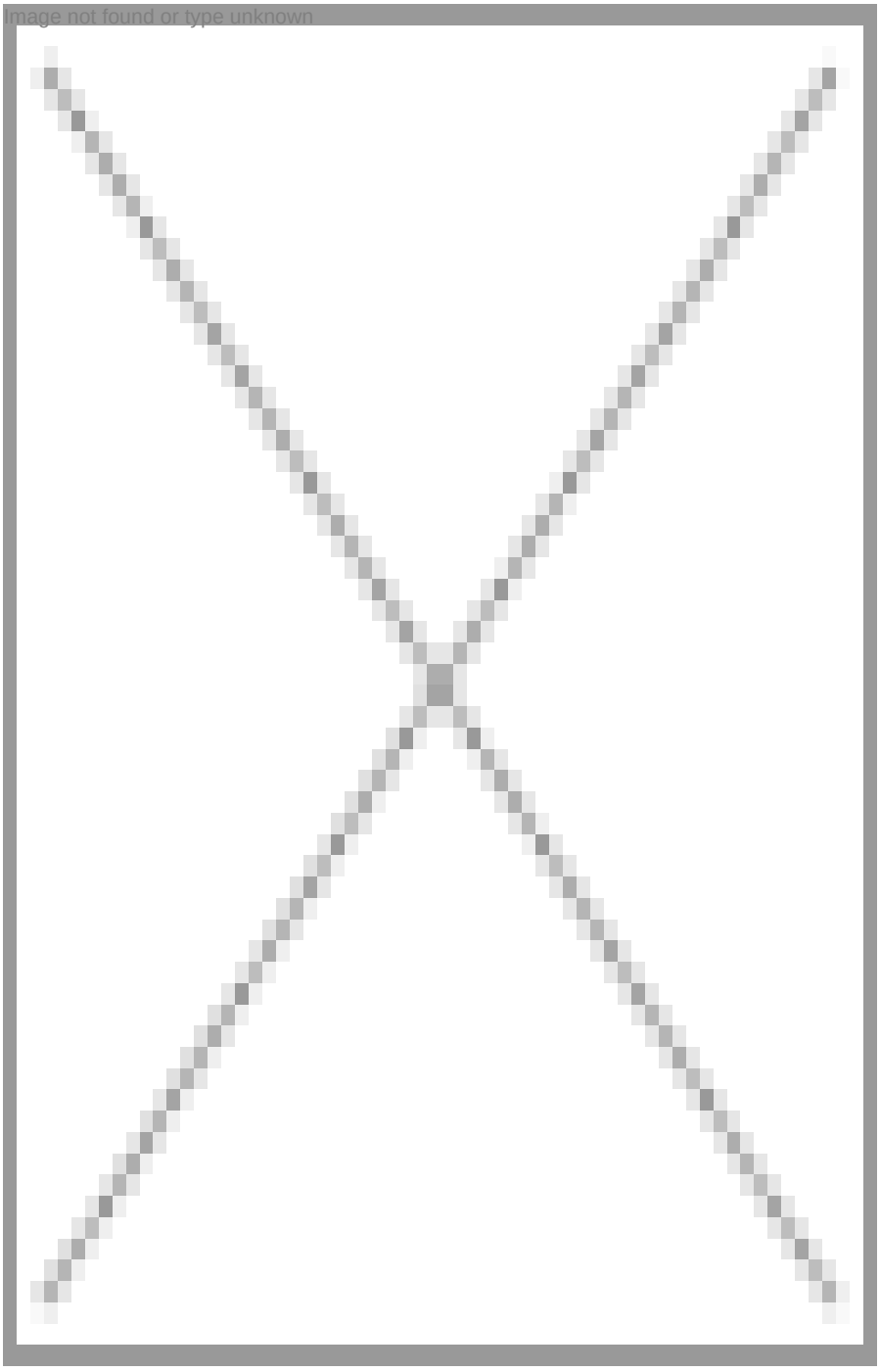

Processes for idea generation

The government of India has supported research and development efforts in the country through national laboratories and other public funded scientific & industrial research organizations. But the conversion of knowledge to commercial products has not been adequate. Many technological concepts, solutions, techniques are languishing at the laboratory level without further development. Inventors get few opportunities of scaling them up for commercialization. The skills required for the translation and commercial product development are weak in the public sector. Technology transfers and IP skills in public sector need to be strengthened. More steps are needed to build up strong industry academia interface. New modalities need to be worked out to generate innovative ideas in different spheres of biotechnology.

Venture Capital (VC) is the ideal approach to innovation. An enabling environment has to be created to attract VC. Biotechnology is a high risk area. Public support for innovation through schemes such as SBIRI, NMITLI and TDB for commercialization together covers the innovation chair.

There are several future challenges for SBIRI. The DBT needs to further professionalize project evaluation and management and we are committed to do so. The density of scientists in biotech SMEs needs to be increased by having high quality people. SBIRI must create processes for idea generation and in this regard two initiatives are planned this year. First, industry partnership platform will be launched to define research agenda by private sector for public support, in collaboration with FICCI. Biotechnology Industry Research Assistance Council (BIRAC), a new organization will be established to manage public funded industry R&D. BIRAC will also organize science and technology meetings for SMEs. Since, SBIRI is limited to companies in small and medium sector, a new R&D scheme will be initiated by the DBT for large industry.

Overall, the DBT's efforts to support innovation in biotech industry have commenced, and will be scaled during the next two years. The industry in turn must develop its R&D, and undertake high risk, high reward type projects. The DBT and industry have to work together to create world class management and evaluation process. We believe Indian biotechnology is headed for major increase in innovation activities.

Suchita Ninawe
Department of Biotechnology, Delhi