

SBIRI-Pooling skills and creating possibilities

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Small and Medium Enterprises (SMEs) have occupied a significant place in the development and performance of biotech sector that is, as expected, technology and innovation driven. Technology innovation in biotechnology is highly risky and requires significant investment and careful nurturing. The Small Business Innovation Research Initiative (SBIRI) was launched by DBT in the year 2005 to support research and development (R&D) in SMEs in the biotech sector. SBIRI provides early stage funding to resolve financial constraints that hinder successful R&D in the biotech sector and also strengthens the academia-industry interaction, which is critical for accelerated product and process development.

The department through SBIRI took the challenge to spur and enable the private industry to espouse the path of innovation, attempt new ideas, take more risks on shared basis and get involved in late-stage-development too wherever the proof of principle has been generated. In this context, timely access to adequate funds and technical mentoring, the major bottlenecks faced by the biotech industry, are the focal points for SBIRI. These needs are still growing vis-a-vis the growing number of new start-up entities in biotech that are showing interest to put a step ahead on innovation path through the programs like SBIRI.

During these seven years since SBIRI launch, the department has been successful to a considerable extent in achieving the core objectives of its public-private-partnership (PPP) initiative. It has created an ecosystem for translation of innovations into commercially tenable products and processes by private sector and promoted PPP in technology development. Before SBIRI came into being as DBT's flagship initiative to foster innovation in the small and medium scale enterprises in Indian biotech landscape, unlocking the potential of these organizations in the biotech sector was not getting the attention it deserved. SBIRI is a mirror of coordinated efforts by the scientific community.

The scheme is operated through the Apex Committee of SBIRI (ACS) and the Technical Screening Committee (TSC). Representation of various concerned ministries and departments on ACS gives a sense of having a collective decision on each project supported. TSC comprises of eminent scientists drawn from institutions across the country. An initiative as unique as SBIRI would not have seen the light of the day without astute guidance from the very top and motivated efforts of

many committed scientists who worked hard. The highest level of inter divisional involvement of DBT scientists made the SBIRI a symbol of unity for the purpose, that is highly significant in the government set up. The success of SBIRI is credited to all these individuals, private sector and public partners.

Strengthening the bonding with stakeholders

The foundation of success of a scheme such as SBIRI rests, to a very large extent, on the ability of implementing team to ensure that maximum possible targeted stakeholders are aware of the scheme and its various details. For a country of India's size, this is easier said than done and requires a serious and focused outreach and promotional effort.

SBIRI team of DBT made all its efforts to reach out to potential players mainly through two major ways that were unattempted earlier in any of the DBT's activities; first one is through print media (not novel, but maximal utility of its scope was unique) like advertising the scheme in local newspapers apart from national dailies, by putting the Call for Proposals on the prominent and attractive cover page of science magazines, putting the information on websites of various industry associations and the other way was face-to-face interaction with potential partners through a series of road-shows and science-meetings in various cities of India. Both of these means have been proven successful in its objective and are being imitated for other programs in DBT.

As a coordinated initiative, SBIRI has evoked a very encouraging response from the targeted institutions and has been successful in bringing different stakeholders from industry, academia and the government on a common platform to work for faster growth of biotech sector in India. By channelizing government funding for R&D efforts in the biotech sector, SBIRI has spurred an increase in funds committed for R&D initiatives by the private sector as well. In fact, as the statistics reveal, private sector has contributed more than the government to projects initiated under the SBIRI umbrella.

Of the 121 projects sanctioned till date, DBT's commitment has been Rs192.84 crore of which only a small portion of Rs27.28 crore is as grants-in-aid and the remaining of Rs165.56 crore is in the form of soft loans. Proponent private organizations have committed an investment of Rs211.54 crore.

Outcomes and recognitions

About 50 percent of the projects sanctioned are completed so far and TSC had done a special review to assess the results of seven years of efforts put through SBIRI. The projects in all the four major sectors of biotechnology produced amazing outcome. In agri-sector, progress in transgenics remained the focus.

In healthcare, commendable success in development of vaccine, recombinant drugs, monoclonal antibodies, diagnostics, biomarkers, drug designing, tissue engineering and various other areas has been achieved. Industrial processes and products sector moved ahead on enzyme technologies, development of value added products, drug intermediates and platform technologies for industrial products. Instrumentation sector made its noticeable impact in medical devices as well as lab equipment.

Of the 55 projects reviewed by TSC for its outcome, 37 have done very well. In addition to prominent outcomes in the form of some products that are in the market and some promising research leads that have potential for commercialization, these projects generated IP to Indian origin and several patents have been filed on the basis of research under these 37 SBIRI projects.