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Bioincubators & their progressive journey in India

31 May 2023 | Views | By Dr Vishal Gandhi, Founder & CEO, BioRx Venture Advisors & Indian Healthcare Angels

Government has introduced a number of programmes and initiatives to promote bioincubators

India has been witnessing steady growth in the biotechnology sector, with the industry expected to reach $150 billion by 2025. India has a strong talent base, with many highly qualified scientists and engineers, particularly in the biotech and life sciences sector. Additionally, the nation is investing more in R&D and has a growing number of research institutes, both of which have fuelled innovation in the industry. Additionally, there is a growing demand for healthcare solutions in India, driven by a growing population and an increasing burden of disease.

As a result, we have seen a significant increase in biotech and life sciences startups in India over the past few years, with many innovative companies emerging in areas such as healthcare diagnostics, drug discovery, and medical devices. These firms are harnessing technology and scientific innovation to address some of the most critical healthcare concerns confronting the country, and are positioned to make a huge impact in the years ahead.

A brief history

The journey of bioincubators in India has been quite progressive, with the government and private players working together to create an ecosystem that fosters innovation and growth. The first bioincubator in India, the Society for Innovation and Development (SID), was set up in 1986 at the Indian Institute of Science, Bengaluru. Since then, several bioincubators have come up across the country, especially in the last decade.

Bioincubators frequently provide access to a network of industry experts, investors, and possible partners together with physical facilities and support services. Young businesses can greatly improve their chances of success by overcoming the difficulties of introducing novel goods and services to the market with the aid of this ecosystem of support.

The Department of Biotechnology (DBT) and the Government of India are constantly working to grow the biotechnology industry in India. There are numerous Indian biotechnology parks and incubators presently, expanding the field of biotechnology and generating employment in the biotech industry. The primary objective of governmental or private bioincubators, also known as biotech incubators, is to promote emerging biotech startups in the bio-business. They support the expansion of biotech startups from a local to an international level.

State governments also establish bioincubators for more growth of the biotech industry in their states. Telangana, Tamil Nadu, Andhra Pradesh and Maharashtra have more bioincubators than other states in India.

Pro-bioincubator policies

In India, there were approximately 160 bioincubators and 1,800 businesses functioning in these incubators as of March 2021, according to a report by the National Science and Technology Entrepreneurship Development Board (NSTEDB). The research also notes that more than 800 firms have left these bioincubators after receiving a degree and have raised more than Rs 5,000 crore (about $675 million) in capital overall.

The Indian government has introduced a number of programmes and initiatives to promote bioincubators in recognition of their significance in fostering innovation and entrepreneurship. To assist biotech companies and SMEs, the DBT introduced the Biotechnology Industry Partnership Programme (BIPP) in 2016. A grant of up to Rs 50 lakh ($67,000) is made available to bioincubators under this programme for an 18-month term to support the incubation of biotech businesses.

The Biotechnology Ignition Grant (BIG) programme was also introduced by the government to finance early-stage biotech firms. The programme offers a grant of up to Rs 50 lakh ($67,000) for an 18-month term to assist in proof-of-concept studies, prototyping, and other technological development-related activities.

The expansion of bioincubators in India has also been significantly aided by the private sector. To encourage innovation and entrepreneurship in the biotech industry, several powerful corporations, including Reliance, TATA, and Biocon, have established bioincubators. These bioincubators give businesses access to finance as well as mentorship, networking opportunities, and laboratory and office space.

The Centre for Cellular and Molecular Platforms (C-CAMP) in Bengaluru is one of India's renowned bioincubators. The life sciences industry has benefited greatly from C-CAMP's promotion of innovation since its establishment in 2009. Startups get access to top-notch laboratory resources, mentoring, and networking opportunities thanks to C-CAMP. Over 200 firms have received incubation from the bioincubator, which also assisted them in raising more than $100 million in funding.

Biotechnology Industry Research Assistance Council (BIRAC) Regional Centre for Technology Promotion (BRTC) is established at KIIT Technology Business Incubator (KIITTBI)- BioNEST in Bhubaneswar to nurture and promote biotech startups in the regions of East and Northeast states of India.

Additionally, bioincubators have been effective at encouraging social entrepreneurship in the biotech industry. To encourage innovation in the life sciences industry, the Centre for Cellular and Molecular Biology (CCMB) in Hyderabad established the CCMB Social Entrepreneurship Programme (CSEP), a social entrepreneurship programme. Startups can get lab and office space, mentoring, and financial support through CSEP. Several firms, including those trying to offer accessible healthcare solutions and those promoting sustainable agriculture, have been incubated through the programme.

Performance indicators

The number of startups incubated, the number of jobs created, the amount of investment raised by the startups, and the success rate of the startups can all be used to gauge how well a bioincubator is performing.

Over time, India's bioincubators have seen a considerable rise in the number of firms they are able to support. Incubated at various bioincubators across India as of 2021 are more than 200 biotech firms, according to BIRAC.

Bioincubators in India have played a significant role in generating employment opportunities.There are two types of jobs generated by bioincubators in India: direct employment and indirect employment. Jobs created by incubated startups, such as those for scientists, engineers, technicians, and administrative personnel, are included in direct employment. Jobs created by the vendors, suppliers, and service providers who work with these startups are considered to be indirect employment.

A study by the Association of Biotechnology Led Enterprises (ABLE) found that in India, the biotechnology industry produced more than 400,000 direct jobs and more than 1.2 million indirect jobs in 2019. While the exact number of jobs produced by bioincubators is unknown, it is plausible to conclude that a sizable fraction of them were.

Additionally, a number of prosperous businesses that emerged from India's bioincubators went on to significantly increase the number of job opportunities. For instance, MyLab Discovery Solutions, a business that specialises in medical diagnostics and graduated from Bangalore's C-CAMP, has produced over 500 jobs. A biotech business called Stempeutics Research, which graduated from Hyderabad's CCMB, has produced over 200 jobs.

According to research by BIRAC, over 1,400 biotech firms were able to be incubated by BIRAC-funded bioincubators in India between 2012 and 2020, and they were also able to raise over Rs 4,200 crore ($570 million) in funding.

A number of other bioincubators in India, besides those supported by BIRAC, have been instrumental in helping biotech businesses raise money. For instance, between 2018 and 2021, entrepreneurs were able to raise around Rs 500 crore ($68 million) in finance thanks to C-CAMP bioincubator. More than 70 per cent of the firms nurtured in bioincubators, according to BIRAC research, have been successful in obtaining funding or commercialising their goods.

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