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An exclusive look inside KIIT's hottest tech biz incubator

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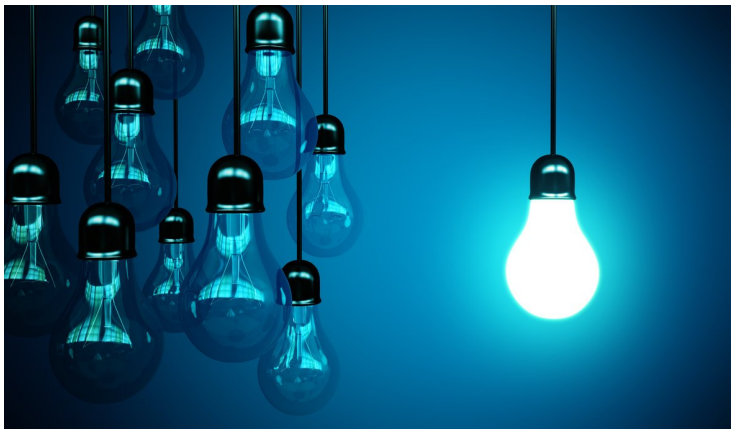

Dr Mrutyunjay (Jay) Suar, the director of the school of biotechnology, KIIT University, and CEO of KIIT-TBI, shares some of his revealing insights into the incubator's model and uniqueness, success stories and the roadmap on how to kick-start the biotech boom in the next couple of years in the nation.

Q: What is the incubation model that you follow at your TBI?

Dr Jay: Being primarily a University-based incubator; we focus on translating research entrepreneurial avenues. We mostly encourage 'Technology Platform Model' wherein start-ups sell or rent technologies to various established players.

However, more recently, we are also getting into the Research Intensive (or royalty income) Pharmaceutical Companies or RIPCO (start-ups that research and develop a new product to finally license it to a big pharma or biotech company in exchange for a royalty on sales); and Fully Integrated Pharmaceutical Company or FIPCO (start-ups that launch their own product) models as well.

We also know that no single model can be followed in an incubator, and that's the reason we are competitive to nurture diversified innovative ideas to translate into a product or process with high commercial values.

Q: How can this model be replicated to kick-start the start-up boom in India?

Dr Jay: Life Sciences start-up culture needs to be cultivated not only in metro big city hubs like Bangalore, Pune, Hyderabad, but also in places like Chandigarh, Bhubaneswar, Dharwad, Mysore, Dehradun, Tirupati, and Durgapur.

Each biotech start-up has its own dynamics and need, which cannot be generalized, therefore 100 smart cities should put biotech start-up hubs as a part of an integrative planning.

More focus must be given on the technological interventions that can be introduced based on local area conditions but has a

national and global perspective.

Q: What are the key investments needed to create, say, 2000 biotech start-ups by 2017?

Dr Jay: Biotechnology is different from IT start-ups where the infrastructure costs are only related to computer and software investments. But, in biotech starts-ups there is a need of an ecosystem with high technology-clustered equipment facilities.

Also, the broad spectrum of areas under biotechnology makes it difficult for a funding agency or the government body to understand the investments required.

Say for example, bioinformatics related research would need the same infrastructure costs as the IT industry. Biopharma and related areas would require capital investments on a different scale.

Biomedical areas would require investments of the electronics industry. This sheer multi-disciplinary nature of work, requires a relook at how investment policies or methodologies work.

However, critical to all the monetary, policy implementation is expert manpower.

So for a biotechnology start-up boom, investing in quality manpower that would be industry ready is a must.

The new government's skilled India policy must have biotechnology as a thrust area.

Product-oriented start-ups must also be equaled with service-oriented start-ups particularly in healthcare sector where ITeS and biotech have a big role.

Somewhere, product testing and validation lab should be established to cater to the need of early start-ups engaged in product development, which will give them an edge in the market.

Also, recognizing biotechnology research as a priority sector and lending in banking parlance would provide access to the markets, which would in turn help start-ups raise money.

The recent announcement by Securities and Exchange Board of India (SEBI) in regard to listing of biotechnology companies is welcoming, however, we believe it would take some time for the industry to get accustomed.

Q: In the current situation, how many biotech start-ups can an incubation centre produce in a year, given the challenges in funding and infrastructure?

Dr Jay: The number of start-ups depends upon the dynamism of the ecosystem and culture prevailing in the region.

Bangalore, being an early start-up destination, must be replicated in many other cities. Early stage start-ups need anything between INR 20-30 lakh, which can be supported.

From a pool of 30 start-ups, at least 5 companies can be formed every year from a start-up incubator, depending on the area of work they are into including diagnostics, agri-biotech, environmental biotech, biopharma, and biomedical among others.

Among these 5 companies, 1 to 2 will become big to employ at least 30 employees, which is a success story, considering that it is a start-up.

Q: Tell us about the uniqueness about your incubation centre.

Dr Jay: Our University-based incubation system is our strength. Given that we have schools of electrical & electronics engineering, IT, management, and law, of which at least 15 percent of the faculties are involved in promoting entrepreneurship. So the start-ups would not need to wait for advice.

The school of management would provide business support. Even programs can be designed where the management students (as a mini project for their coursework) can develop an innovative market survey or analysis method to help a biotechnology start-up.

Also, KIIT-TBI is the only incubation center in Odisha. Considering that the KIIT School of Biotechnology has more than 600 undergraduate and master's students along with a 100 PhD scholars, we have formed a critical mass by engaging biotechnology start-ups with chemical technology, process engineering, nanotechnology, ITeS, and electronics.

Q: Briefly tell us about the success stories achieved at the centre?

Dr Jay: Success is a very subjective term. We measure our success mainly with the employment generated.

A graduated company (Maa Kanak Biofertilizers) has developed biofertilizers with integrated pest management and integrated nutrient management solutions for the Odisha agro-climatic region, has been doing very good business in the State, and is slowly expanding to East India with a multi-crore turnover and has created employment for over 35 people.

Another incubatee - Bionivid Technologies, a bioinformatics company has created employment for over 25 people.

Success for us is also measured in terms of collaborations created. An incubatee, inDNA Life Sciences is collaborating with BGI China and Reach 100 in Australia, which is first of such a kind in India, to launch their genome-based diagnostics and solutions.

In a recent meet up, the CEO of Maa Kanak Biofertilizers has expressed his interest in becoming an angel investor.

We are in early stage discussions, targeting a total investment of INR 2 crore with a ticket size of INR 20-25 lakh, it gives us immense pleasure as our entrepreneurs are society conscious and philanthropic rather than being solely money-minded.

Another graduated company called, Biologic Applications, has developed pre- and probiotic curd, which is gaining market traction.

Looking at such success in Bhubaneswar in a short span time, 16 more start-ups have established their operation in our Incubator in the area of diagnostic, biomedical device, plant biotechnology, bioengineering and food biotechnology.

To support large number of start-ups the KIIT management has developed a dedicated incubator of 60,000 sq ft built-up area with modern facilities.

Q: Do you see a rise in the erection of number of biotech start-ups? Or is it dwindling?

Dr Jay: The last decade in India has been very good in creating a positive vibration about start-ups in India, which has now resulted in attracting top students from IITs and IIMs, who are young researchers joining start-ups or starting one.

This is a very encouraging trend in India, and I am confident that we will able to match other developed nations in the next decade as 'Make in India' campaign will really boost the start-up ecosystem.

The Government of India, through its enterprise, BIRAC of DBT under the leadership of Dr Renu Swarup has taken a number of initiatives to create the necessary infrastructure and quality manpower.

Similarly, National Science & Technology Entrepreneurship Development Board (NSTEDB) of DST, Govt of India, under the leadership of Mr H K Mittal has also established several biotechnology incubators and provided seed fund support schemes. Thus, it is definitely a growing trend.

Q: Do you see any trends in the biotech start-ups climate?

Dr Jay: Of late, there is an increasing trend of multi-disciplinary start-ups. Graduates from other fields like engineering, IT or management are starting biotech or healthcare start-ups, slowly filling in the voids that cannot be achieved individually.

I have seen a clear shift among young scientists that, rather than getting into international research career, they are now preferring innovation path by taking up several innovative projects of Social Innovation Programme for Products Affordable & Relevant to Societal Health (SPARSH), Biotechnology Ignition Grant (BIG), Small Business Innovation Research Initiative (SIBRI) of BIRAC, Department of Biotechnology (DBT), and the Government of India.

These schemes have brought new spark in the biotechnology start-up ecosystem. I can see the acceleration rate already, and five years down the line we will see large numbers of young start-ups in this area.

Q: Where can Indian incubation centres improve on?

Dr Jay: Biotechnology and Life Science incubation centres should work on retaining in-house pool of technical mentors for helping the start-ups in every step of proof-of-concept till validation.

Incubators should talk frequently to the investors and VCs and convince them for possible investments.

Improvement should be made with respect to de-risking the biotechnology sector.

The multi billion dollar valuations and billion dollar investments that are routinely seen in the e-commerce sector are either non-existent or minimal in the biotechnology sector.

Angels and VCs are bullish about the regulatory framework, which is hindering them to invest in biotechnology.

However, we are seeing a rising trend, where in few players are recognizing the efforts of the sector.

A move in this regard from the Government is the equity-based investment scheme - AcE fund.

This would de-risk few of the stages and encourage VCs to invest in the Indian biotechnology sector.