

Industry, institutions eye innovation through research

Stakeholders are increasingly realising the importance of collaboration

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Whose job is it to research — academia or corporates? In India, it typically falls into a no man's land, while many countries see strong collaborations. Still, India moved up 15 levels to the 66th rank in the Global Innovation Index in 2016 and is second only to China among middle-income countries. There are slow but sure changes unfolding.

Winning ideas

The need for new ways to work on ideas is obvious. "In a year, we hardly file 4,000 patents; a company such as IBM or Google beats that," says Nikhil Mahajan, CFO, CL Educate, and Director of Chennai-based Accendere Knowledge Management Services.

"Investors want something disruptive, but they do not have the patience," says Sanjay Choudhary, CEO and founder of SharpEdge.uk, which owns Incuspaze, a co-working space. Making a breakthrough takes time, needs good mentoring, infrastructure such as 3D printing facility and guidance on research methodology.

Mahajan says IP licensing can give good revenues to corporates, but Indian IT players do not develop

products or invest enough resources in building IP. On the other hand, universities have multi-disciplinary capabilities, resource access and cost-effective talent from students, say Vish Viswanathan, CEO, UBICS, and AJ Balasubramanian, Director, Agilix Health, conveners of the College of Engineering Guindy Alumni Association Incubator. But academia does not have the time, nor does it get any incentives to do research, and the work is often theoretical.

Team work

Industry-institution interaction is not easy and is not too deep. Even in the US, close relationship is limited primarily to the top 50 universities, says Mahajan. Accendere is working on enabling closer co-operation in India through its research framework and services.

Incuspaze is working on an outsourced innovation model, taking up pilot projects from multinationals to build proof-of-concept products, for a fee. "Colleges provide the talent and infrastructure. It costs a one-fifth to do re-

search in India and this frugal model is appealing," says Choudhary. Another model is an alumni-driven industry interface and engagement, such as the one at College of Engineering, Guindy, Chennai. The alumni association has jointly set up an incubator with the Centre for Entrepreneurship Development and the college.

Corporates are also using the CSR route. With ₹15,000-18,000 crore of funds, even a 20 per cent spend can create an impact over the years, notes Mahajan. There are also outsourced corporate accelerators such as Zone Startups, an international start-up accelerator. It runs fintech accelerators for Barclays and Axis Bank, and has undertaken innovation mandates for companies such as HDFC and Thomson Reuters. Ajay Ramasubramanian, Director, Zone Startups India, adds that hackathons are a great way to get students to work on real problems.

Success stories

These efforts are seeing results. One example of R&D off-shoring is Citibank's i-flex software developed in India. The product was successfully sold to other financial firms in Africa. There are other examples of products built in India

to be deployed in markets such as Latin America, South-East Asia and Africa. "Symphony has patented specific materials that are used in air coolers (one-tenth the cost of air conditioners)," says Mahajan. There is also a need to

tune global solutions for India — Michelin is working on modifying its tyres for local road conditions.

Application-level innovations are happening. "Dimension NXG is a start-up developing 3D computer-vision solutions with application in defence and movies. Its solution gives about 10x better results than industry leader Intel," says Ramasubramanian.

Viswanathan, who had collaborated with universities in the US while working at Sabre Holdings to solve large-scale optimisation problems, is trying to replicate the model here with TiE Chennai charter members. Specific business problems are curated and taken to academic institutions for innovative solutions.

There is also a need to convince industry of the capability of colleges and academia to shift focus to solve real problems. That requires dedicated leaders and organisations with both academic and industry experience to facilitate exchange of requirements, solutions, capabilities and budget, says Balasubramanian.

