

CHAPTER 4

Support systems for Technology Business Incubation

The success of a Technology Business Incubation programme is largely dependent on several external mechanisms that provide vital supplements to the main incubation activity. These such critical mechanisms are the pre-incubation or idea stage support, access to finance and recognition to performing incubators and incubatees.

PRE-INCUBATION OR IDEA STAGE SUPPORT

A new technology venture comes into existence riding on the back of an idea. To realize this, the idea needs to be nurtured in its initial stage to take it forward. There are several initiatives that are being implemented in order to access potential entrepreneurs with good ideas and innovations. One such initiative are Business Plan competitions, that are today fast growing with virtually every good Technical and Management Institution conducting at least one such event every year. 'Eureka' of IIT Bombay, 'Anveshan' of IIM Ahmedabad, 'Deas' of IIT Kanpur, TIE-ISB Connect of ISB Hyderabad are examples of such competitions that have a pan India presence.

These competitions provide not only avenues for innovators and potential entrepreneurs to show case their ideas, but also provide them with the much needed experience in business planning, which is a critical element of any new venture creation. Most of these competitions are conducted by the students in these Institutions through their Entrepreneurship Cells.

The NSTEDB, recognizing the role such initiatives play in strengthening the incubation eco-system, has been actively engaged in supporting such programmes. In addition, it also has partnered with other organizations in bringing two major programmes which are:

A DST-INTEL – IUSSTF programme - India Innovation Pioneers Challenge

The Department of Science and Technology (DST), Indo-US Science and Technology Forum (IUSSTF) and Intel have partnered on building technology entrepreneurship programs in India. The objectives of the program are to create an entrepreneurial ecosystem in India, boost entrepreneurial spirit in Indian academia and scientific enterprises through business plan competitions, and to build a curriculum on technology entrepreneurship for Indian academia.

India Innovation Pioneers Challenge is an innovative technology business plan competition that provides an unparalleled avenue of opportunities for emerging entrepreneurs to explore and share ideas and gain insight for commercializing their venture through the mentoring and networking support that are integral to the competition.

Through this platform the best students, engineers and scientists in teams present how they plan to make the world a better place through their innovations and entrepreneurial skills. The Competition reaches out to the best research institutions, research labs, entrepreneurship-fostering networks and industrial associations across India and affiliates with it to find the technologies and teams that can have the greatest impact. Participation in India Innovation Pioneers Challenge gets you, your technology and your team onto the premier world stage for technology entrepreneurship.

In our Life Science Incubator, we are looking for innovations that aspire to make a difference, either by doing something different or doing the same thing differently.

Mrs. Deepenwita Chattopadhyay,
CEO, ICICI-Life Science Incubator & EC member ISBA

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B DST – FICCI - LOCKHEED MARTIN PROGRAMME

DST and Lockheed Martin, along with a great team of partners, has developed the India Innovation Growth Program to help Indian innovators with promising early-stage technologies find markets in the United States and other locations around the world. The DST-Lockheed Martin India Innovation Growth Program is a two-year, nation-wide project, created to enhance the growth and development of India's entrepreneurial economy. The Program is equally funded by Department of Science and Technology (Gov. of India) and Lockheed Martin Corporation, and was developed with the assistance of the Indo-US Science and Technology Forum, IC2 Institute at the University of Texas, and FICCI.

Through the India Innovation Growth Program, entrepreneurs learn the right commercialization strategies for their technologies. It provides for an opportunity to work with experts and educators who know what works and what doesn't. Additionally it gives the unique benefit of being able to showcase technologies before potential partners, customers and investors.

Participant Benefits

It's a highly selective program that's looking for the most innovative technologies that India has to offer. The India Innovation Growth Program is the only program of its kind, because of its focus on teaching and using world-class commercialization strategies. All this at no cost to the entrepreneurs.

The following benefits accrue to all selected entrepreneurs:

- Training in technology commercialization strategies and entrepreneurship
- Analysis of commercial potential of their technology by US and Indian experts
- Participation in a technology competition judged by an international panel of experts from IC2 Institute @ the University of Texas at Austin

Program finalists will receive these additional benefits:

- Professional business development assistance
- Access to US and global markets



DST- Lockheed Martin India Innovation Growth Programme - Innovator's Competition and Awards June 13, 2009, New Delhi

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Technopreneurship Promotion program (TePP) has helped many an innovative mind. Last month at the Delhi-wood 2009 expo held at Pragati Maidan, Vinayaka Pandi proudly displayed his split-type wood cutter customised for carpenters; one that combines a sophisticated design with an affordable price tag. P. Karuppaiah speed up tedious coconut harvesting by mounting a hydraulic jack to his old tractor. With this innovation, two people alone can harvest as many as 600 trees, while only 160 trees could be harvested manually. Khimji Bhai Kanadia in Gujarat created another agricultural innovation-the Kitzanal, a small soil-filling device which has proven to be a boon for labourers in plant nurseries and forestry departments as it significantly increases their daily wages.

Other entraining innovations are the soap-less washing machine, silk made out of banana fibres, the arcana-peeling machine and a fertilizer made out of leather industry waste. Each of these products was a seed of an idea in the mind of a creative genius in some corner of the country. Brought alive and moulded to marketable precision by the Ministry of Science and Technology (S&T) through TePP, these innovators would otherwise not have gained this recognition and success as entrepreneurs.

Activities

The activities under TePP include providing financial support to selected and screened individual innovators having original ideas for converting them into working models, prototypes and so on. TePP assistance is provided to the innovator to meet expenditure on the following:

- R&D/engineering consultancy
- Procure small equipment, tools etc required
- Raw Material/Accessories (for prototype/process trials)
- Fabrication cost (for prototypes)
- Patent guidance and support
- Manpower
- Testing & Trials
- Any other relevant costs

TePP provides financial support as grants – in – aid to short-listed innovative and novel proposals on the basis of expert evaluation under four broad categories:

TePP Phase I (Innovation Incubation)

(a) "Micro Technopreneurship Support" (TS) limited to a financial assistance of up to Rs.75,000/-, This is given to selected innovators for testing their new innovations or ideas with computer generated models.

(b) "TePP Project Fund" (TFP) provides financial assistance up to Rs. 15Lakhs to the selected innovator or start up firm for developing function proving prototypes

TePP Phase II (Enterprise Incubation)

(c) "Supplementary TePP Fund" (STF) to provide a maximum support of Rs.7.5lakhs to successful innovators of TePP Phase I for licensing technology to a third party.

(d) "Seamless Scale-up Support" (S3T) to provide a maximum support of Rs.45.00lakhs for successful TePP innovators of TePP Phase I for starting their own enterprise.

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The NSTEDB has also setup a very similar SEED FUND to equip the STEP/TBIs. The quantum of NSTEDB fund made available to the incubator is Rs. 2 crores. The major difference in the scheme is that upper ceiling limit which is fixed for Rs. 50 lakhs as against Rs. 25 lakhs. In both schemes, it is mandatory for the startup to be physically present in the STEP /TBI premises.

Number of STEP/ TBIs having SEED FUND	17
Total seed fund sanctioned (TDB and NSTEDB together)	Rs. 19.71 crores
Funding disbursed so far	Rs. 9.05 crores
Number of Incubatee companies to have received funding	78

b) ANGEL & VENTURE CAPITAL FUNDING

Another heartening development has been the rise of Angel funding groups, the most notable among them being Indian Angel Network, Mumbai Angels and TIE Chennai Fund.

Started in April 2006, the Indian Angel Network is a unique concept which brings together highly successful entrepreneurs and CEOs from India and around the world who are interested in investing in start up / early stage ventures which have the potential of creating disproportionate value. In addition to money, the Network provides constant access to high quality mentoring vast networks and inputs on strategy as well as execution. The Network members, because of their background are better able to assess the potential and risks at the early stage. The Network looks at investing from USD 100,000 to about USD 1 mn, and exiting over a 3 to 5 year period through an IPO, M&A or strategic sale.

The same positive trend holds for professional investing in the form of VC funding that has seen a jump in recent years. As an example, VC investments in India-based companies rose three per cent to Rs. 3888 crore in 2008 with 80 deals completed. In 2007 the amount invested was Rs. 3789 crore in 85 deals. In 2008, majority of investments went to business and financial services companies, which garnered a record Rs. 1656 crore in 26 deals. The investments in the country last year were more than double the Rs. 648 crore inflows through 20 deals in 2007. Further, the energy and utilities investment climbed some 75 per cent in 2008 to Rs. 315 crore. However, IT industry in the country saw investments drop as much as 45 per cent to Rs. 792 crore in 2008 from Rs. 1436 crore in 2007. India was the only region to see its deal size hold firm year-on-year, remaining unchanged at Rs. 36 crore in 2008.

These factors when looked at together augur well for the state of the entrepreneurial ecosystem in the country. Rapidly gaining momentum, these support systems, many of which have been initiated by DST, are likely to soon lead to an unstoppable global innovation juggernaut powered by the Indian entrepreneurial spirit.

TDB Seed support fund, an innovative mechanism for providing seed funding to promising start-up ventures at incubation centres, has become popular with incubatee companies to upscale & develop the proof of concept & early stage technologies into ventures during the last three years.

Shri Dinesh Sharma, Secretary Technology Development Board, GOI

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Tax Exemptions for the STEP /TBI

As per Notification No. 9/2007 – ST dated 1.3.2007 by the Department of Revenue, Ministry of Finance, Government of India all taxable services provided or to be provided by Technology Business Incubators and Science & Technology Entrepreneurs Park are fully exempt from levy of Service Tax subject to the following conditions:

- The TBI or STEP has to be notified by the NSTEDB, Department of Science & Technology Government of India. The eligibility criteria is that the STEP or TBI should either be a Registered Society as per Societies Registration Act or should be a Section 25 company under the Companies Act.
- The STEP or TBI that intends to avail of the exemption should submit the requisite information as per formats provided by the Ministry of Finance on or before the 30th of June of each financial year.

Tax Exemptions for incubatee companies

As per Notification No. 9/2007 – ST dated 1.3.2007 by the Department of Revenue, Ministry of Finance, Government of India all taxable services provided by an entrepreneur are exempt from the levy of Service Tax subject to the following conditions:

- The entrepreneur must be located within the premises of the incubatee STEP or TBI
- The entrepreneur has entered into an agreement with the STEP or the TBI as an incubatee to enable himself to develop and produce hi-tech and innovative products
- The total business turnover of such entrepreneurs does not exceed Fifty Lakh Rupees during the previous financial year.

The entrepreneur can avail of the exemption for a period of THREE years from the date he/she enters into an agreement with the STEP /TBI.

Investments by STEP /TBI in the form of equity in incubatee companies

As per the amendment made in the Income Tax Rules, 1962, in Part – IV, in rule 17C as per inclusion of the new clause no. vi:

An incubator (STEP or TBI recognized by NSTEDB) can invest by way of acquiring equity shares of an incubatee company.

Technology Business Incubators are an important cog in the wheel of economic development and growth. They bring a very unique dimension to Institutes and Universities where they are based.

Dr. Raghunandan R. CE, ISSATE-STEP, Noida & Treasurer ISBA

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India Innovation Pioneers Challenge has taken the definition of a "Business Plan Competition" to a level higher as it offers an unlimited opportunity for aspiring entrepreneurs to plan for commercialization of their venture.

It provides young innovators with:

- A platform to showcase technology
- Smart commercialization strategy
- Guidance from experts and mentors
- Excellent funding opportunities
- Global business opportunities
- International experience of a lifetime

The winners of the Competition get an opportunity to showcase their plan at Intel + University of California-Berkeley Technology Entrepreneurship Challenge, in USA.

Polyskin from India won the second position at the 4th International Intel + University of California, Berkeley, Technology Entrepreneurship Challenge (IBTEC) business plan competition held on 21 November 2008.

Polyskin with their revolutionary product an artificial skin for application in burn and wound healing and regeneration segment was judged by a team of venture capitalists from the San Francisco Bay Area. Criteria for the win were the development of innovative technology products and services with the greatest potential for a positive impact on society backed by a sound business plan. Intel Corporation, USA awarded the winning team \$10,000.

Polyskin, a spin off company from National Institute of Immunology (NII), a premier biotech research center of the Department of Biotechnology in New Delhi. The multidisciplinary team of Polyskin consists of a bioengineer, medical and pharmaceutical professional represented by G. Rajmohan and C.K. Anish, both PhD students at NII, working under the guidance of Dr. Amulya K. Panda. The other team from India - Dhama Apparel Innovation (cooling jacket and helmet) was amongst the top nine semi-finalists.



Team from DST-Intel-IUSSTF India Innovation Pioneers Challenge program wins the International Technology Entrepreneurship award at the University of California, Berkeley

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The following are some highlights of the Lockheed Martin India Innovation Program:

- Program is open to all Indian researchers, inventors, entrepreneurs and companies with early stage technologies that possess promising commercial potential.
- Program is open to technologies from a wide range of fields including:

Aeronautics	IT
Agriculture	Manufacturing
Bio-tech	Marine
Chemistry	Materials
Communications	Medical / Life Sciences
Computing	Nanotech
Defense	Petrochemical
Electronics	Semiconductors
Environmental	Transportation

ACCESS TO FINANCE

A Funding at idea stage

As mentioned earlier, the idea is the key to the realization of a technology venture. Maturing the idea to reach a prototype stage and further to commercialise the prototype requires funding. As a new initiative during 1998-99, the Ministry of Science and Technology, Govt. of India, launched a novel programme known as "Technopreneur Promotion Programme" (TePP) to be operated by the Department of Scientific and Industrial Research (DSIR) to tap the vast innovative potential of the citizens of India.

The programme aims to tap the individual innovators across the country who have innovative ideas which can become commercially viable products for our rural sector or society but are not able to materialize for lack of financial support. The programme provides financial support as grants-in-aid to these innovators to prepare their prototypes, work on its enhancement and later on set up an own enterprise on it or for licensing the technology to a III rd party. Thereby the programme is a mechanism to promote individual innovators to become technology-based entrepreneurs (Technopreneurs). The most heartening aspect of this scheme is that it is open to any "Citizen of India".

TePP provides an opportunity to innovators to fail. Picking winners is not an objective- the market does it. TePP advocates a new philosophy – failure is not a sin. We share dreams of innovators and celebrate their success.

A. S. Rao, Advisor to the Ministry of Science & Technology

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To ensure that there is adequate reach and awareness creation in the people, the TePP scheme operates through Outreach Centres designated as TUC's with the Central office being located at the Department in New Delhi. This decentralization greatly improves the reach of the programme and also ensures that there is a local contact which gives a lot of confidence to the innovators. A list of the TePP Outreach Centres is given in the Annexure B

B Funding at Incubation stage

a) SEED FUND

While the STEP/TBIs are able to support the "Space + Services + Knowledge" requirements, a wide gap exists in supporting the typical and specialized capital requirements of a technology driven start up.

The purpose of the SEED FUND is to provide a technology driven startup with the much-needed early stage financial support for deserving ideas/technologies requiring up-scaling and related work. The Technology Development Board, under the DST has initiated a first of its kind seed funding system titled "SEED SUPPORT SYSTEM FOR STARTUPS IN INCUBATORS".

Such a Seed Support System would enable some of the innovative ideas/technologies to graduate to a level where they can then be fit for seeking normal lending through other sources such as Financial Institutions. This is an experiment, and if successful would lead to establishment of an exclusive support facility for research and development by the small enterprises on the lines of SBIR (Small Business Innovation Research) and STTR (Small Business Technology Transfer) (USA) where support to the tune of US \$ 2 billion was provided during 2004.

Quantum of financial assistance to the incubated entrepreneur

- Minimum: Rs. 1 lakh
- Average: Rs. 25 lakhs
- Maximum: Rs. 10 lakhs

The total upper ceiling of financial assistance to be disbursed to a start-up would be Rs. 25 lakhs for the entire project. The mechanisms of providing the funding could be any of the following - soft loan, interest free loan, equity participation, grant, etc. The disbursement is normally linked to benchmarks / milestones.

Broad Areas to be covered under the financial assistance

- Product development
- Testing and trials
- Test Marketing
- Mentoring
- Professional consultancy to engage Professors / experts with small firms
- Filing of Indian/International patents and concerned matter with the maximum support of Rs. one lakh for each project / start up
- Man power for day to day operations
- Any other area as deemed necessary and recommended by the Management Committee constituted by the STEP/TBI.

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RECOGNITION TO PERFORMING INCUBATORS AND INCUBATEES

National Award for "Best Technology Business Incubator" – instituted by the NSTEDB, Department of Science & Technology, Government of India

The recognition of the performance of any organisation provides for a great source of motivation to the employees and also greatly enhances the perception of the stake holders and the Society towards the organization.

Recognizing this, the NSTEDB first instituted the "Best STEP Award" in the year 2000. The beneficiary institution is identified, through a rigorous evaluation carried out by a Committee that has been set up exclusively for the same. The performance of the STEP /TBI is evaluated based on several parameters such as the number of incubated companies, the success rate of the incubator in graduating companies, the number of innovative technologies developed, the employment generated by the companies, the revenue generated by the STEP/TBI and so on. The Award includes a trophy and a cash prize of Rs. ONE Lakh.

The awardee list till date is as follows:

YEAR	ORGANISATION
2000	SJCE – STEP MYSORE
2001	TREC-STEP TRICHY
2002	PGC-STEP COIMBATORE
2003	GIAN, AHMEDABAD
2004	JSSAT-STEP NOIDA
2005	ICRSAT HYDERABAD
2006	TECHNOPARK, TRIVANDRUM
2007	ICICI – KNOWLEDGEPARK, HYDERABAD
2007	BEC – STEP BAGALKOT
2008	VIT – TBI, VELLORE

Fiscal Concessions provided to Incubatees and Incubators:

Incubators promote new high growth enterprises which in turn create wealth and new livelihoods in the society. One of the often underestimated feature of incubators, is also its ability to boost tax revenues for the nation. Worldwide, many studies in incubators in USA, Germany, UK etc have envisaged this dimension of incubators, to create new sources of tax revenues. However, incubators themselves are unearched to be self supporting public institutions, generating its own revenue for its sustenance after few initial years of public support. So, the Ministry of Finance, understanding the importance of incubators and its ability to deliver new value continuously has provided exemption from the service tax brackets to incubators, against the prevailing trend. Besides this incubates will also be greatly helped if part of its revenue stream is available to them for ploughing back to feed their accelerated growth. Being innovative and high growth enterprises not only newer forms investments to realize these ventures but also additional support in early stages will go a long way in achieving promotion of knowledge based industries in our country. In order to support these knowledge based venture promotion the MOF has also come forward with additional fiscal incentives.

The concessions essentially comprise of providing exemption from the levy of Service Tax and secondly the permission of the incubator to invest by way of acquiring equity shares in an incubatee company.

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Asia Pacific Incubation Network

infoDevWorld Bank is a global development financing program among international development agencies, coordinated and led by an expert Secretariat housed in the Global ICT Department (GICT) of the World Bank, one of its key donors and founders. It acts as a neutral convener of dialogue, and as a coordinator of joint action among bilateral and multilateral donors – supporting global sharing of information on ICT for development (ICT4D), and helping to reduce duplication of efforts and investments. infoDev also forms partnerships with public and private-sector organizations who are innovators in the field of ICT4D. Priorities and strategies for infoDev are guided by a governance framework, approved by infoDev Donors in June, 2005.

The association of the India Incubation with the infoDev has been fruitful one so far. Some incubators such as TREC-STEP Trichy, VIT-Vellore have been supported under the infoDev program. India was also host to the Global Forum on Business Incubation: Empowering Economies through ICT-enabled Innovation and Entrepreneurship in 2006 at Hyderabad, where more than 300 participants from 60 countries gathered to learn more about how to most effectively promote IC-enabled entrepreneurship and to increase their capacity through networking and exploration of partnerships.

Taking the initiative in ICT entrepreneurship forward, the Asia Pacific Incubation Network (APIN) has been established which is supported by the infoDev, World Bank and the DST. Its purpose is to help promote, support and develop quality business incubation in the region, developing management & policy capacities and sharing experiences. The network is owned and driven by incubator managers, giving incubation professionals their own vehicle to learn to learn from each other, undertake practical activities and to advocate for policy and other improvements.

APIN's activities are controlled by a Steering Committee, working closely with the APIN secretariat at PSG-Science & Technology Entrepreneurial Park (PSG-STPE), PMSSE College of Technology in Coimbatore and India and infoDev's Asia Region Facilitator Julian Webb and incubator specialist Amanda Keryon.

Activities

The APIN has planned its initiatives to strengthen the business incubation movements across and within each country and also develop new synergistic learning and participation across and within the business incubation players of each country in the region. The activities of APIN include:

- Asia Pacific Conference & Policy makers forum on business incubation
- AABI annual conference
- Capacity building programme for business incubator managers
- Online training programme for business incubator professionals
- Webcasts
- Video Conferencing
- Newsletter on initiatives and achievements in business incubation.

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