

Science Tech Entrepreneur



Jan. 2010

India Innovation Growth Program

Getting a new technology from the laboratory to the marketplace requires a good strategy, hard work and skillful execution. For this purpose the Department of Science and Technology (DST), Govt. of India and Lockheed Martin, along with a great team of partners which includes the Federation of Indian Industry and Commerce (FICCI) among others, has developed the India Innovation Growth Program to help Indian innovators with promising early-stage technologies find global markets. It is a highly selective program that looks 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. No cost is involved for participation.

Applicants who are selected to participate in the program are provided the following benefits :

- 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.

Program finalists also receive additional benefits:

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

A born entrepreneur who could have stuck to the already existing family business chose a totally different enterprise – an enterprise whose need is being felt across the globe. With growing innovations in electronic gadgets and gizmos, their equal use, and their equal disposal, a new enterprise in recycling of the end of life equipments has emerged. Mr. B. K. Soni's Eco Recycling Ltd (Ecoreco) echoes the twin objectives of an emerging enterprise with vast potentialities that are yet to be tapped in the country as well as the much needed environment protection goal that the world is gradually waking up to. The story of this entrepreneur and his enterprise should be read to gauge and exploit the vast potentialities that it offers and not merely as a success story as contributing to a green environment is also the objective of this entrepreneur besides generating revenue. Mr Soni has won the Gold Medal from Department of Science & Technology, Lockheed Martin & FICCI under their Technology Commercialization Program, 2009, read on to find out more about the entrepreneur with a green vision.....

Small Town, Big Dreams

Brijkishor Kishangopal Soni, (B K Soni) was born on 17th March, 1959 in Tarana, district Ujjain, Madhya Pradesh. The eighth amongst four brothers and five sisters Soni belongs to a business family which had a flourishing business of garments. He lost his father at the very tender age of 12. His early educational exposure was restricted to Tarana, his native place, from where he did his primary schooling from municipal school and secondary from Government Higher Secondary School. Although his father himself was a semi-literate person having studied only up to class VI, he was a visionary nevertheless. His father had founded the college Jai Jawan Mahavidhyalay, Tarana, from where Mr Soni graduated in Commerce.



He then shifted to Kolkata and did Cost Accountancy from the Institute of Cost and Works Accountants. There was, however, no demand of Cost Accountants when he passed out and he suspects whether there is any demand for this profession even today. Although extremely busy today he nevertheless still finds time to pursue his passion of playing badminton, practicing yoga, listening to old Hindi songs and travelling.

Employment before Entrepreneurship

During the course of Cost Accountancy Mr Soni joined Asiatic Oxygen Ltd, Kolkata, in July, 1980 as a Cost Assistant at a salary of Rs. 680/- per month and worked for two and a half years. Thereafter, he shifted to Bombay to join Shree Digvijay Cement Co. Ltd as a Cost Accountant and served up to December 1984. His total experience as an employee lasted for four and a half years.

Always in Business

Owing to his entrepreneurial background, the idea of setting up his own enterprise was always there at the back of his mind. The fact that his family had never worked for anybody else and were never submissive to any fixed or assured income also worked as a catalyst to his early decision of setting up his own entrepreneurial venture.

Immediately after resigning from Shree Digvijay Cement Co. Ltd in December 1984, the struggle for Mr Soni to meet various obligations started. He had to undertake several smaller activities for others, like sales tax registration, trade mark registration, distribution of application forms for the public issues and fixed deposits and he even sold carpets to fulfill his responsibilities. But his focus never shifted from carving a niche in the financial services segment. The first big success came when he arranged working capital facility for a company in 1986 and received service charges of Rs.100,000. Similar successes followed. Simultaneously, he became a member of the Madhya Pradesh Stock Exchange and also got associated with a member broker of the Bombay Stock Exchange as a sub-broker. In 1998, he also got the membership of the National Stock Exchange and continued till he surrendered the same in 2003.

Identifying the Enterprise

Year 2000 was the base year for the present activity when Infotrek Syscom Limited, a public limited listed company on BSE (promoted by Mr Soni) started computer software development and distribution of software packages along with dealing in the computer hardware. During the course of his business of new computer hardware, the entrepreneur used to get enquiries for the old computers. But since all of them were not repairable, he started looking at the solution for the end of life equipments, during this time he came to know about certain practices of recycling being adopted in the developed nations in contrast to the regular practice of *Kabadis* in the country. This gave him the idea of exploring the opportunity in the Indian market and using the technology which is environment friendly for the disposal of such end of life equipments. Later in 2005, Infotrek started importing used computer for refurbishing and exporting and also buying locally for repairing and upgrading to resale in the local market. At this point of time, the need was felt for the safe and secured disposal of end of life equipments.

This was a big challenge for him since he had to find the most suitable practice in the global market which meets local requirements and also protects environment. The blessing in disguise came from the entrepreneurs in UK, USA and Germany, who shared their experiences and also allowed him to visit their facilities to understand the recycling business and suitable model for Indian market to begin with.

Another major challenge was to develop awareness about the hazardous impact of the end of life electronic items particularly when handled in an un-scientific manner. Mr Soni will always remain thankful to the support extended by the Bennett Colman & Company Ltd (BCCL, a Times of India group company) by letting him use their various media to create awareness.



Entry Ecoreco

At this point of time a subsidiary of Infotrek Syscom Limited was formed in the name of Eco Recycling Ltd (Ecoreco) in September 2007 to undertake the responsibility of environment friendly disposal of the Waste Electrical and Electronic Equipments (WEEE). Initially Infotrek was started with Rs. 100 lacs of investment in this segment but as of date Infotrek and Mr Soni have invested Rs.1200 lacs in Eco Recycling Ltd.

To undertake WEEE activity, Ecoreco set up its facility close to Mumbai for recycling of end of life electronic equipments to recover back different commodities for end use at the end of respective smelters as raw material. Ecoreco also started a shredding facility on wheels for destroying discarded data devices/mobile phones/printed circuit boards, etc, to protect personal and confidential information and other valuable components.

Unfortunately, at this point of time there was no talk of organized recycling of e-waste in the country and no legislative support was there to push the generators to handover e-waste to organized recyclers.

Problems & Solutions

He faced several problems and a few still exist, firstly this market is dominated by the scrap dealers (commonly known as *Kabadis* in India) and to enter in to their domain was the biggest challenge. To overcome that, he was required to create awareness about the environmental impacts of the e-wastes, for which he fortunately received support from the Times of India group. Secondly, in India, it is not mandatory to get the e-waste disposed off with the help of organised recyclers and that may be one of the reasons why the organised recyclers do not enter in to this field.



Luck again favoured Mr Soni at this juncture because in 2007 Maharashtra Pollution Control Board had started taking cognizance of this problem and its solution seriously and had decided to form an Expert Group to suggest guidelines. He was included as one of the members of the group. Later on MOEF/CPCB released the E-waste Guidelines in April 2008 and also covered e-waste in the hazardous waste list in October 2008.

Thirdly, the per capita use of electronics is very less and that too widely spread over across India. Therefore, collection is another challenge. To overcome this hurdle, Mr Soni tied up with a national level logistic company, Gati Ltd for collection across the country. Ecoreco also has its own vehicles for collection within Mumbai and nearby areas like Pune and it gets the material from corporate entities and serves across India.

Fourthly, proper recycling facility needs a lot of capital investment but unfortunately till now there is no support from any quarters. To address the financial requirements, together with Infotrek Syscom Ltd he invested all his savings and started Eco Recycling Ltd to shoulder this marathon task. This socio environmental service is being done by Mr Soni from his own sources right from the beginning and no support has come in yet from any of the Government departments.

The Next Decade of Recycling

Mr Soni firmly believes that the next decade will be known for the recycling and for green and clean movement globally. Ecoreco envisage being amongst the most successful corporate entities in India. At Ecoreco they are working on a large business plan to invest INR 1000 million for developing infrastructure for the reverse logistics and warehousing and for forward integration.

Mr Soni does not consider himself successful yet in terms of positive cash flow, which he thinks is the yardstick for measuring success. "Nobody cares for your contribution and the above referred milestones. Finally the yard stick is; could you build assets, bank balance, market capital etc? If not, nobody cares", he adds. For the March 2009 turnover was Rs. 600 lacs plus. This year as of now it is close to Rs. 400 lacs, and Mr Soni hopes to surpass last year's turnover.



The recycled material is reused as raw material by the respective smelting companies for making various products. Ferrous, non ferrous, plastic, glass are the main products procured from recycling. These products are common commodities and therefore saleable across India.

No impact of liberalisation

As far as liberalization is concerned Mr Soni is of the opinion that it is not evident in this industry, in spite of

recyclers working in the best interest of the country and environment. Also there is no scope for globalization, because Basel Convention has restriction on cross boundary movement of hazardous substances. Sending to land fill is preferred rather than shifting for recycling to other countries who can handle the same, he informed.

The Grand Vision

Recycling Revolution: India the Destination

Quality ensurance

Ecoreco has been certified for ISO 9001, 14001 & 18001 and the Company is making the best efforts to meet the standards.

Mantra for success

“Select career very carefully, gain domain, be passionate and have patience, work for revenue and plan for windfalls. I strongly believe that no social service can continue for long until backed by self sustainable model”.

“Do not talk; just walk and let the people talk” – these are Mr. Soni’s keywords.

Landmarks



It was in January 2005 when he started working for recycling/refurbishing of used electronic equipments, particularly computers. He visited several plants in different countries and attended more than two dozen conferences / exhibitions globally to get the knowledge of the subject and get acquainted with the process of recycling of WEEE. A few points are worth mentioning:

- Mr. Soni set up 100% Export Oriented Unit (EOU) for import of old computers and export after refurbishment.
- Incorporated Eco Recycling Ltd in Sept 2007
- Placed orders for plant and machineries with London and Ireland parties.
- Set up the first facility in Andheri (E), Mumbai in a 10,000 sq ft rented premises.
- Facility started from 1st April 2008.
- Developed unique shredding facility on wheels for data destruction, cell phones, etc - the first of its kind in India.
- Reached 100 clients in the first year itself.
- Crossed 200 clients in September 2009.
- Shifted facility to a much larger premises in Vasai (E), near Mumbai
- Recommended for ISO 9001, 14001 & 18001
- Installed Enterprise Resource Program (ERP)
- Facility has been certified by several MNCs



AWARDS

- The first company approved for registration for e-waste recycling by the CPCB.
- The best business plan award from CII, NVI, WRI,

About the Company

Eco Recycling Limited (Ecoreco) was established in September 2007 by Infotrek Syscom Limited, a company listed on the Bombay Stock Exchange, since 1995 and Mr. B K Soni, to focus on the e-waste recycling business in an organised manner, with the help of superior technology, complying norms set by the pollution board for the environmental safety.

Ecoreco provides the full spectrum of activities covered under e-waste management – collection of e-waste from the door step of the generators,

USAID & British consulate in Oct, 2008

- **The Most Innovative Technology 2009 award from Good Governance India Foundation in.**
- **High Impact Company award from Sankalp 2009**
- **Gold Medal from Department of Science & Technology, Lockheed Martin & FICCI under their Technology Commercialization Program, 2009**

sorting them into working/non-working equipments/components, data security, remarketing of reusable equipments/components, dismantling of end of life equipments, size reduction, sorting in to different commodities like glass, plastic, iron/steel, aluminium, copper and hazardous material. Ecoreco's facility is located close to Mumbai, to carry out the above activities.

For assured supply of e-waste, Ecoreco has entered into sourcing agreements with various companies of validities up to 5 years. Given that a large part of the business involves e-waste collection from multiple locations, Ecoreco has tied up with one of the leading domestic logistic player having nation-wide presence to enable both operational and financial efficiency in collection. Through this tie-up, Ecoreco is able to offer e-waste collection from over 600 locations in India. Data security / data-leakage are threats that many organisations fear while discarding computers to external recyclers. To address these concerns, Ecoreco has a first-of-its-kind-in-India mobile shredding van which it deploy to clients' locations to ensure 100% secured data destruction from hard-disks and other devices that contain information.

End of life electrical and electronic equipments are consisting of various reusable commodities and hazardous substances, recovering both these in an environment friendly manner is a major challenge. E-waste recycling has traditionally been dominated by a very entrepreneurial informal sector in India, constituting a large majority of the total market share.

Ecoreco is a member of the International Association of Electronic Recyclers (IAER), USA, now merged with ISRI, USA probably the only such entity from India to claim these credentials. Ecoreco is also a member of other prestigious industry bodies within the sector such as Manufacturers Association for Information Technology ("MAIT") and ELCINA Electronic Industries Association of India. Ecoreco is also the only Maharashtra Pollution Control Board ("MPCB") recognised e-waste recycler in Maharashtra. Recently Ecoreco has been declared Winner of the Business Plan 2008 by CII/NVI/WRI/USAID & British Consulate. Ecoreco has also been awarded certificate of "Most Innovative Technology" by Municipalika 2009.

Recycling Process

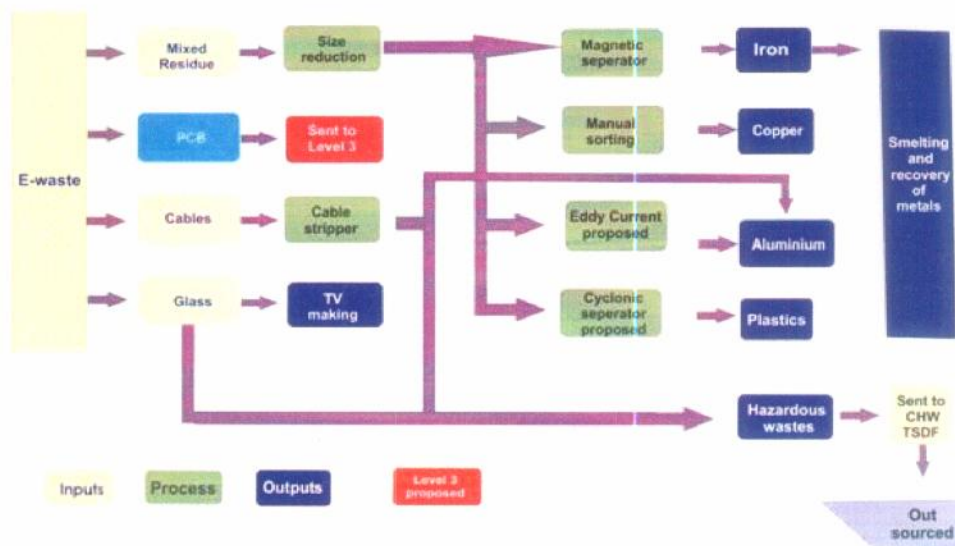
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Recycling activities at Ecoreco commences with the receipt of e-waste material from various clients' locations. The material is initially weighed, and is separated product-wise (monitors, CPUs, printers, keyboards, etc.) for easy retrieval. The material is then checked by qualified technicians to ascertain whether the equipments are working or non-working. If the equipment is in working/ near-working condition, then the technicians attempt to repair/ upgrade the equipments to ensure that they become re-marketable and can be resold. If the equipments are not in working condition, attempts are being made to salvage components. Accordingly, the technicians dismantle the equipment into components and try to retrieve any working parts thereof.



The residual components are then passed on for shredding into the twin-shaft shredder. The shredder, which is capable of accepting feed of around 1,500 kgs per hour, helps to "open up" sealed components, separating metals from plastic. The shredder accepts manually dismantled components through a hopper at one end, passes the feed through the shredding chamber where two counter rotating hexagonal shafts fitted with circular blades shred the components, and the shredded items are dropped onto a moving conveyor belt.

RECYCLING PROCESS



An inbuilt overhead magnetic band ensures automatic separation of ferrous component from the feed, whereas employees, wearing appropriate safety equipment such as gloves and helmets, stand by to physically separate other metals such as aluminium and copper from the moving conveyor belt. All plastic components are deposited at the end of the conveyor belt. These metals (aluminium, steel, copper) and plastics which are of high purity in nature are then usually sold to smelters.

Certain components of the computer such as printed circuit boards (PCBs) contain precious metals such as gold, silver, etc. These PCBs are not sent for shredding and are instead accumulated and would be used for precious metal extraction. That portion of e-waste which contains hazardous elements and cannot be recycled is sent to authorised hazardous waste treatment and disposal facilities for final disposal as per the norms of the Pollution Board.

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