

— Eco-Innovation success story from Malaysia —

A Blueprint for Success – Accel of Malaysia

In a global printing market worth \$850 billion, producers of printing inks inevitably face stiff competition, but also real business opportunities. With an eye firmly on the Asia-Pacific market, Malaysian company Accel Graphic System is turning to eco-innovation to reap the rewards of a growing printing industry. But Accel’s innovations have had a multiplier effect, opening new business lines and new possibilities – all good for the environment... and for the bottom line.



For Dr. Helena Eian, sustaining the planet for future generations is important. “We must make all efforts to contribute towards planet earth’s natural ecosystem,” she says, calling on her peers to think responsibly about what is left behind.

But Eian is not just an environmentally-concerned citizen. She is also the managing director of a “responsible business entity” which employs 50 people. And in the search for new growth and higher profits, this SME, Accel Graphic System, has just made a fundamental

change to the way it operates. Through eco-innovation, the company is now finding out that what's good for the environment is also good for business.



Taking the step to eco-innovation

Since 1993, Accel Graphic System was an ink company which focused on serving the newspaper, commercial and packaging markets in Malaysia and the region. Magenta, cyan, yellow or black, all the company's inks were geared towards customers who demanded a high quality ink product and in some cases printing technologies – which Accel provided.

But company growth and the development of new ideas were difficult to achieve. A lack of knowledge and financial support hampered Accel's efforts to expand, and the company was uncertain of markets' readiness and acceptance of new products.

For Accel, the importance of the Eco-innovation project cannot be overstated. Supported by UN Environment and Malaysian government agency SIRIM, Accel redefined its business strategy with a key step in the eco-innovation process: "hotspot analysis". It noticed three particular impacts of the industrial process, or "hotspots", which were hurting efforts to grow and innovate.

First, Accel's analysis showed that a limited local supply of pigments for the domestic printing industry had led to significant imports of this valuable material. But because of fluctuations to currency exchange rates (and oil price), importing the necessary materials came at a high economic price.

Second, on the sites where they operated, customers had to deal with hazardous waste generated from the use of the petroleum-based inks. This meant higher disposal costs imposed on Accel's clients by waste contractors (often responding to national regulations).

Finally, the petroleum-based products (or hydrocarbon solvents) used in the ink blending process were also hazardous to workers' health. Though despite the availability of alternative, sustainable materials such as vegetable oil (and local demand for vegetable oil-based inks), local supply was limited.

For the sake of the company, the clients, and the environment, Accel needed to make changes, and it needed a new business model.

The (greener) path to success

The company began with a more eco-friendly core product: sustainable ink.

Accel recognised that with natural, vegetable oil-based ink, it would reduce the environmental and toxicity impacts onsite: both at the company and at the clients' address. With this improvement alone, financial savings could be made. Also, the switch to vegetable-based oil would lead to a 24% reduction to Accel's consumption of expensive petroleum-based materials.

All considered, Accel expects clients to lower their costs by 10% thanks to reduced waste and material inputs.

But crucially, Accel's ecological venture would open up new markets for its core product. The reason? Eco-label certification.

All over the world, and including the growing Asian market, more and more customers and end users are demanding eco-friendly inks. These are not just attractive for ecologically-conscious customers, but to news and print houses who want higher quality inks which save costs in the long run. For Accel, the production of sustainable ink with eco-label certification also means potential access to a growing niche in Asia's multi-billion dollar market. With eco-certified inks, Accel is keeping up with a more demanding regulatory environment, and with the competition.

The multiplier – supplier to service provider

But for Accel, eco-innovation means more than just being an ink supplier. Thanks to new ideas which emerged from collaboration with partners, the company now offers two key services to multiply its business offering and growth potential.

"For years, Accel Graphic Systems sold bulk quantities of chemicals to customers, who then became the owners of those substances and responsible for their use and disposal," explains the company.

“With a chemical leasing model, we are able to offer a more sustainable solution; in which the customers pay for the services rendered by the chemicals and not by the volume of chemicals consumed.

“Accel Graphic System will retain ownership of the chemicals sold thereby taking back unused substances with potential for reuse, being responsible for it during its entire life cycle.”

The company explains that the improved management of chemicals through chemical leasing not only has environmental advantages, but it means financial benefits for both company and client.

This chemical leasing system, says the company, is coupled with an “ink dispensing system” – a new service which has already achieved success.

Introduced following collaboration with SIRIM, and the award of funding by SIRIM’s Industrial Innovation Model Fund, ink dispensing technology is designed to save costs for Accel’s domestic clients, thanks to the reduction of packaging materials and their associated disposal costs.

All told, Accel’s innovative ink dispensing service could cut paint and packaging waste by 50%.

People, profit, planet

This is good news for Accel’s clients and partners in the value chain, including the Ultimate Print facility – the first local print house to put in place the ink dispensing system and sustainable printing practices.

Here the use of eco-friendly ink means workers aren’t exposed to the hazardous materials found in petroleum-based ink, and the company stands to make valuable savings and produce less waste.

According to Accel, the return on investment for installation of an ink dispensing system can even be made within nine months if the client uses between 96,000 to 100,000 kilos of ink per year.

The company’s managing director Dr Eian argues that all-round success, in environmental and economic terms, is a path worth pursuing.

“Supporting an eco-innovative system whereby we can make a difference to the environment, save costs, and at the same time promote more business and profits is of the utmost importance,” she says.

For Accel Graphic System, Malaysia's sustainable printing SME, eco-innovation has set the company firmly on the path to opportunity and growth. And it is just getting started.

The Eco-Innovation Project was funded by the European Commission with the administrative support of UN Environment and local implementing partners in Asia, Africa and Latin America.