

The business of being green

Companies are realising there is a commercial advantage to being environmentally responsible

2006 HONG KONG ECO-PRODUCTS AWARDS

B **ING ECO-FRIENDLY** is increasingly a commercial need rather than just a gesture of corporate social responsibility, according to the organisers and winners of the Eco-Products Awards 2006.

Business Environment Council (BEC) chief executive Andrew Thomson said manufacturers had to address environmental issues if their products were to be admitted to European markets because those markets applied stringent environmental regulations.

The Eco-Products Award encourages businesses to make their production environmental friendly. Spearheaded by the BEC, it is co-organised by the Chinese Manufacturers' Association of Hong Kong, the Chinese General Chamber of Commerce, the Federation of Hong Kong Industries and the Hong Kong General Chamber of Commerce.

Dr Thomson said the entries for this year's award showed that eco-products had evolved to become more robust, flexible in design and adaptive to the needs of end users.

A total of 66 products were submitted by 39 companies for the awards. Many of the companies were first-time participants.

While the initial investment in eco-friendly manufacturing could be a barrier, the long-term savings made it worthwhile, the major award winners said.

"Most people think about eco-friendly products as more expensive, but in the long term they are cheaper," said silver award winner Esquel Group corporate communications manager Leo Jar.

"We have had our waste water treatment plant for six years, even though there is no legislation requiring it. We want to be a good corporate citizen and we would like to protect our investment. It is a sustainable way to do business when we take care of the social costs."

Albert Oung, founder of Roots Biopack, which won this year's gold award, said the cost of disposing of non-eco-friendly products could be high. A

styrofoam container might cost only 30 cents to buy but \$1 to dispose of.

Philips Electronics Hong Kong project management director Jaw Tee Wee said cutting down on paper use in product packaging could reduce production costs significantly. The company won the bronze award for its GoGear MP3 player.

Eco-friendly packaging is a prerequisite for entering European Union markets, which impose a Waste Electrical and Electronic Equipment (WEEE) directive requiring firms to collect and recycle e-waste from homes.

Mr Jaw said: "We have to make sure the products are easy enough to dispose of [in compliance with WEEE]." He said being eco-friendly also helped to market the firm's products.

Wietske Rodenhuis, assistant product manager of Philips' mobile infotainment group, said: "If a product has enhanced battery life it is a selling point."

Esquel's Mr Jar said consumers increasingly looked for eco-friendly products. "When people look for a product they used to look at the cost and quality. The eco aspect came after those. Now, people are wising up and they

want to be more responsible about the environment. They are asking for organic cotton and hybrid cars. They want environmentally friendly products despite their higher prices."

Mr Oung said: "Large corporations would like to buy from responsible suppliers. Eco-friendly is a marketing term, but the meaning behind it is far greater."

However, few companies are fully environmentally friendly throughout the entire product life cycle, from sourcing of raw materials to disposal.

BEC's Dr Thomson said: "Eco-

production usually starts with one attribute and works from that to multiple attributes. We are heading in that direction, but we are not there yet. At this point, we're not at that stage to give life cycle information. We don't think it will be long before buyers look at life cycle analysis performance."

A life cycle analysis is an assessment of the environmental impact of a product throughout its lifespan, from raw material production, manufacture, distribution, use and disposal. Dr Thomson said there was a strong business drive to move down this route.

NOTABLE MENTIONS

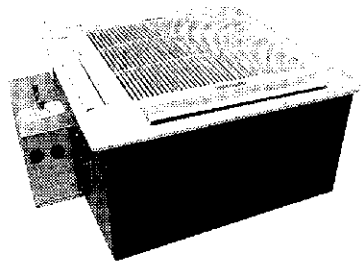
e.Energy Lighting's T & K Lighting Management System

This practical invention has higher energy conversion efficiency of electronic ballasts and reduces energy consumption (right).



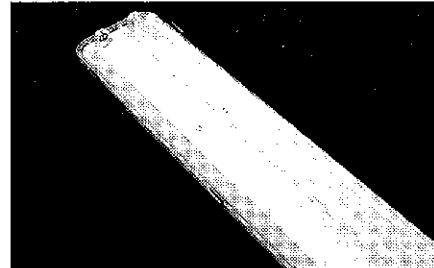
Interactive System & Technologies' Plasma Disinfection Fan Coil Unit and Germicidal Air Purifier

The plasma disinfection mechanism (below) uses energised electrons and ions to kill airborne micro-organisms. Filter life is longer and more energy efficient, and the disinfection level can be adjusted.



Japan Ecotech's Luminosity Enhancement Jacket Luminaire

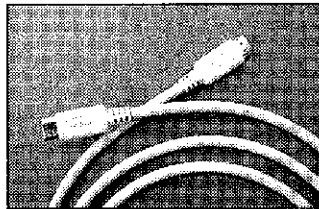
It uses 60 per cent less electricity than conventional high-intensity discharge lamps for the same level of brightness thanks to the patented reflective nano-reflector. It also weighs 50 per cent less than other HID models and can last 10 years (below).



Strongly International's Green Panel

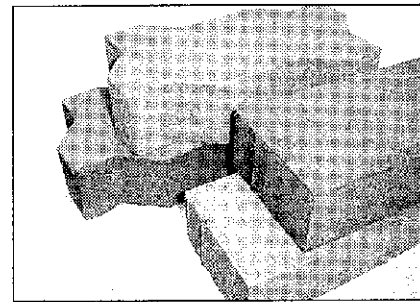
This is a low-maintenance metal panel for pretreated plants to grow in certified organic fertiliser and natural soil. It has a built-in automatic irrigation system that minimises water usage (right).





LTK Industries' Halogen Free High Definition Multimedia Interface Cable

This cable combines video and multichannel audio cable so fewer materials are used in production (left).



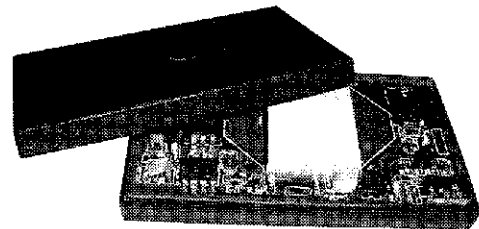
Laputa Eco-Construction Material's Eco-Glass Block

Wastes glass replaces river sand in the production mix so it takes less water to make (above).



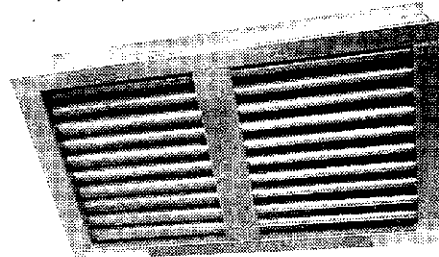
Waste & Environmental Technologies' Mobile Lavatory System

This uses an aerobic waste water treatment system and UV disinfection to recycle waste water for flushing. The partition of the system is made of recycled plastic.



PolyU Technology & Consultancy's Low Profile Low Cost High Efficiency Power Supplies

This new power supply design (above) improves efficiency in power supply from 70 per cent for conventional designs to 90 per cent, and reduces power drawn from the mains by 22 per cent.



Synergy Engineering Solutions' Energy Recovery Heat Pipe

This maintenance-free energy recovery system (above) for central air conditioning uses transferred energy between cool exhaust air and hot incoming air for energy recovery. It uses 75 per cent less power and can be used to dehumidify.

■ ■ ■ GOLD

Container maker has the right fibre

ROOTS BIOPACK

LAST YEAR'S ECO-PRODUCT

award bronze winner Roots Biopack took this year's top honour by extending the biodegradability of its food container products to the application of natural colourings and PE/PET surface lamination.

Roots used agricultural wastes such as sugar cane dregs and wheat stalks from reliable non-contaminated sources to extract natural fibre to make its biodegradable products.

The products have been proven to break up in sunlight or ambient temperature, or to decompose in soil within 16 weeks.

The bacteria that feed on the disintegrating fibre in turn release carbohydrates that fertilise the soil.

The products are being perfected after 11 years of investment totalling US\$10 million. Returns had been negative for the first nine years. Two years ago, the Roots factory in Shunde, Guangdong, was closed for an overhaul.

This year, fully automated machines replaced semi-automated ones. Production capacity has increased from 100 million items a year to 300 million, and the new capacity has been absorbed by its expanding international clientele.

Founder Albert Oung said: "2006 is the turning point. People are moving to look for eco-friendly products. The time has come. Now we have two to three clients every month coming in to audit [the production process].

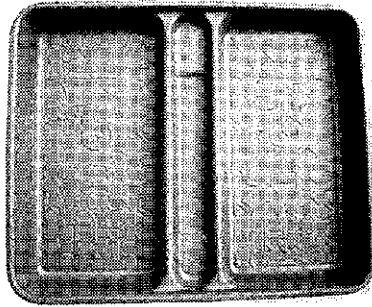
"In the past they didn't care. The United States market has changed. People in the business sector are looking for eco-friendly products now.

"Our products are in their third and fourth generation."

Roots diligently sought certification for its products to substantiate its claims of biodegradability.

Various tests over the years proved its products were biodegradable as claimed, and could be used in hot or cold temperatures, in ovens, microwaves and steamer. They are waterproof, oil-proof and acid-resistant.

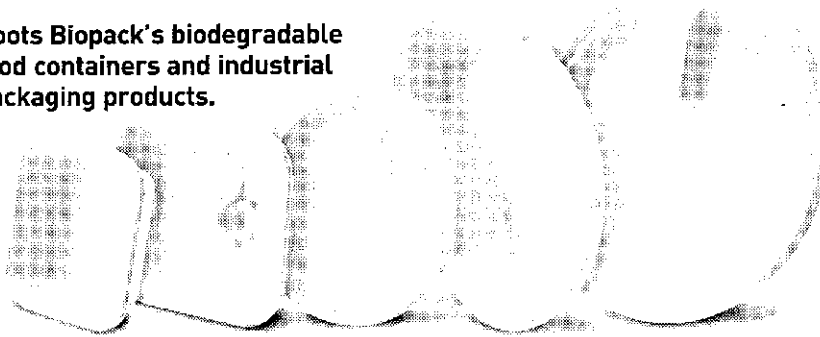
The international quality marks earned include HACCP, the World Health Organisation standard for food manufacturing companies; GMP, or good manufacturing practice that certified that a company employed no child labour or applied unfair treatment to workers; BRC/IoP, the global standard on food packaging, as well as the HK Q-mark, which now uses the Roots' standard as the industry standard, and ISO 9001/14001.



The product range has been expanded from food containers to include packaging for iPods, shoe inserts and kidney-shaped trays for use in hospitals and clinics.

Recyclable self-adhesive carton boxes are used to further reduce the environmental impact of the packaging.

Roots Biopack's biodegradable food containers and industrial packaging products.



■ SILVER

Proof that nothing goes to waste

ESQUEL GROUP

THE ESQUEL GROUP shows care for the environment throughout the production of its eco-yarn – from growing the cotton to spinning and dyeing – and investing heavily in developing its waste water treatment and power-generating facilities.

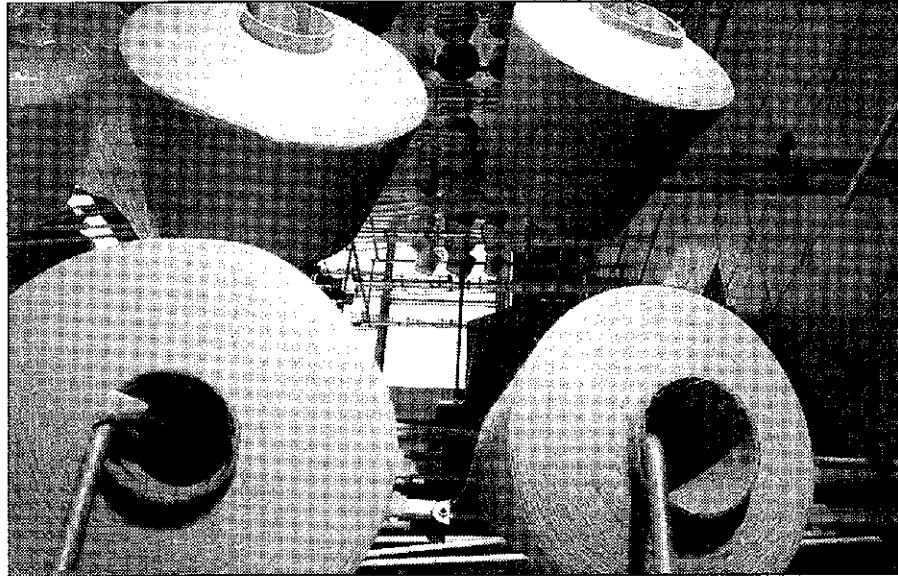
Xinjiang's cool climate is suitable for growing cotton and it does not encourage pests, thus reducing the need for insecticides and pesticides, said Leo Jar, the group's corporate communications manager.

Also, the cotton is hand-picked, which reduces the need for chemical defoliants.

The cotton is spun in Xinjiang and transported to southern China for dyeing to avoid polluting Xinjiang's "semi-closed" water system.

Patented dyeing methods help cut water use by 23 per cent and dye needs by 30 per cent. Waste water from the dyeing process is treated in the group's waste water treatment centre, which treats 40,000 tonnes of water a day.

The group has also invested



The Esquel Group's patented dyeing methods cut water use by 23 per cent.

US\$30 million in its own power plant in Gaoming, which is designed to operate at lower temperatures and produce less nitrate gas. Electrostatic dust removers in the plant remove almost all of the dust.

The company has raised product transport efficiency by using lighter paper cones and thinner, biodegradable plastic wrap.

The firm runs an “eco-mobile lab” programme in Xinjiang to promote environmental education. The programme has reached 83,000 students in the past three years.

“Every human activity will alter or affect the environment and cause significant impact. But we can do better for our environment through creative thinking and action,” Mr Jar said.

■ **BRONZE**

MP3 lasts the distance for Philips

PHILIPS ELECTRONICS
HONG KONG

MANUFACTURED UNDER the company's Green Flagship products, Philips Electronics GoGear HDD1620 MP3 player – which won the bronze award – is commended for having less of an environmental impact during its overall life cycle than competing products.

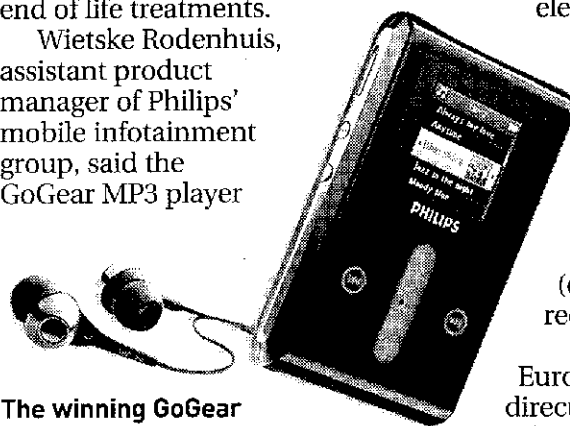
It uses 11 per cent less power than similar products, is the lightest, is compliant with RoHS standard, and 37 per cent of the materials are recyclable.

Jaw Tee Wee, Philips Electronics project management director, said the company worked according to its environmental road map to design new products. The road map sets long-term environmental targets to ensure

eco-friendliness for product design and marketing.

The area of focus covers energy consumption, elimination of hazardous substances, weight, packaging, recycling and disposal. It covers the complete life cycle – from mining to producing raw materials, production and transport, to users, use and end of life treatments.

Wietske Rodenhuis, assistant product manager of Philips' mobile infotainment group, said the GoGear MP3 player



**The winning GoGear
HDD1620 MP3 player**

complied with the green flagship and tied in with what people wanted – such as being light and having a long battery life. The device has a 6GB hard drive, is able to store up to 3,000 songs and 1,600 pictures with MP3 and Windows Media Audio playback.

The battery allows 18 hours of music playing time. With a low electrical current required for playing, short charging time and long music playing time, it uses 11 per cent less energy than its nearest competitor.

About 37 per cent of the product materials (excluding batteries) are recyclable.

In compliance with the European Union RoHS directive, the device contains no hazardous substances.