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### Going green, creating value

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# GOING GREEN, CREATING VALUE

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*Green packaging is better for the environment but costs more. Will companies and consumers pay for the benefits?*

In 2009, Singaporean packaging solutions company Greenpac was approached to help with a rather unusual request – develop a packaging solution for the transportation of live fish from Singapore to all parts of the world. The request had come from SPRING – a government agency – on behalf of the Singapore Aquarium Fish Exporters' Association (SAFEA) whose members were facing the possible ban of polystyrene (otherwise known as styrofoam) in Europe and the U.S.

“It was a challenge [and] something we had never done before,” recalls Greenpac CEO **Susan Chong** recalls. “I wanted to see how far we could stretch ourselves...and how far we could venture outside of our comfort zone.”

## THE PROBLEM WITH POLYSTYRENE

SAFEA members pack fish in polyethylene (plastic) bags filled with water before injecting oxygen into them. After sealing the bags with rubber bands, these bags are put into another similar plastic bag to prevent leakage. These bags of fish are then put into polystyrene boxes.

Polystyrene boxes are used because they provide excellent insulation that ensures the fish reaches the destination in optimal shape. However, these boxes travel easily in gutters that lead to the sea, thereby posing a hazard to the marine ecosystem. Greenhouse gases are also produced in their production, which led to the desire to ban polystyrene altogether.

Chong started the company in 2002 to provide customers with cost-effective, environmental friendly packaging solutions for their products. In this case, an alternative to polystyrene was needed, and it needed to meet the following requirements:

- have good insulating properties in terms of optimum porosity;
- utilise the space available in the cargo used for transporting;
- be able to contain leakage;
- easy to use;
- lend itself to both horizontal and vertical alignment bags; and
- reasonably priced

## **BUBBLE BUBBLE, NO MORE TROUBLE**

After months of research, Greenpac decided to replace polystyrene with metalised bubble packaging. On top of that, the packaging would be sealed with Velcro so that it is reusable to reduce cost. Furthermore, it was durable, lightweight, and could be delivered flat and easily customised to the desired size.

However, it had to provide one crucial thing: insulation. The packaging had to keep the water above 17 degrees Celsius to keep the fish in optimal condition, which polystyrene boxes do well.

To test the new packaging's insulation properties, Greenpac sent fish from Singapore to France via Bangkok, Zurich and Geneva on December 19, 2010 – winter in Europe. A second trial shipment was conducted on January 23, 2011; the new packaging kept the water warm on both occasions.

Based on the trial, Greenpac has delivered on what SAFEA had asked i.e. an alternative to polystyrene boxes. The new packaging, however, costs more even though it was “greener” than Styrofoam and was reusable. It removed the cloud of uncertainty that a U.S. or European ban would cast, but was the industry willing to invest in the new technology?

Furthermore, Greenpac would gain visibility in the global packing industry if SAFEA adopted its recommendations, moving it up the value chain. Much is riding on SAFEA's decision.