



Going Green & Saving 'Green'

Environmental issues can go hand-in-hand with profit margins

By the Editors of *Supply & Demand Chain Executive*

With the 2011 Green Supply Chain Awards, *Supply & Demand Chain Executive* magazine is recognizing leaders that are forging ahead with a range of sustainability initiatives having a direct impact on the supply chain. They are making sustainability a core part of their supply chain strategies.

The Awards also highlight a variety of approaches to sustainability and the range of strategies and solutions that companies are employing to incorporate sustainability in the supply chain. And, finally, the Green Supply Chain Awards puts the spotlight on concrete results that many of these leaders are seeing thanks to their sustainability initiatives.

Supply & Demand Chain Executive received 120 submissions for the 2011 Green Supply Chain Awards through an open nomination process. Nominations were made in two categories: companies implementing sustainability strategies within their own supply chains, and providers of supply chain solutions and services that are assisting their customers in achieving sustainability goals. The magazine's editorial staff reviewed the submissions based on the clarity and content of the goals and strategy, the extent of the steps being taken, and the impact of the results to date, as well as projected results.

Right-sizing for the environment

Hanko Kiessner introduced a new business model for a lean packaging system in the United States when he founded **Packsize International LLC** in 2002. Under the new model—On Demand Packaging™—Packsize enables end users of corrugated (cardboard) boxes to make their own corrugated packaging at the right moment in the right quantity and in the right design, significantly reducing supply chain waste.

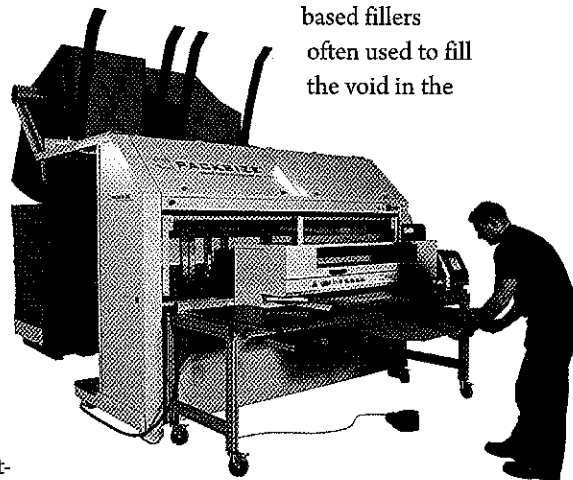
The lean Packsize system delivers an alternative to the existing corrugated supply chain by eliminating the need for large inventories of pre-ordered cardboard boxes, reducing the "footprint" of the packaging supply chain, and trimming content required for boxing and shipping. Sustainability is built into every aspect of the company's operations and is a stated core value. At Packsize, economic success and environmental responsibility are linked. The company advocates reduction, re-use, and recycling of packaging materials and optimizing transportation to minimize the carbon output it initiates.

Eliminating waste

Packsize supports and encourages the environmental stewardship of its supply partners and customers, all of

whom have an interest in reducing the amount of packaging used. For example, on average, products sold on the Internet are shipped in boxes that are 40 percent too large. This is a waste of corrugate and the petroleum-

based fillers often used to fill the void in the



box and increases freight volume. On Demand Packaging™ creates the smallest possible box for each order.

The Packsize system depends on corrugated paper, which is the most environmentally sensible packaging material available. When sustainably managed, as much of today's U.S. forests are with reforestation practiced in most areas, trees are a choice renewable resource. Due to its eco-friendly nature, the fibrous wood pulp used in corrugate can be recycled up to seven times, giving the material an 80 percent recovery rate.

This stewardship saves trees. For example, 24 trees are needed to produce one ton of dry paper pulp; 1.6 tons of dry pulp are necessary to produce a single ton of corrugated material (in a complex supply chain). Using the Packsize model, a single major fulfillment company saves roughly five million pounds of finished boxes per year, thereby saving about 90,000 trees. And, most important, the Packsize system gives this company the ability to save approximately 55 million pounds of CO₂, greatly reducing its carbon footprint on the environment.

As of now, Packsize has saved approximately 465,000 trees thanks to the reduced corrugated demand as a result of On Demand Packaging™. Additionally, 82,000 cubic meters of landfill were not filled with bubble tape, air peanuts, or other petroleum-based packaging fillers.

Because the Packsize system makes the supply chain so much leaner, it also reduces the number of trucks and planes needed for shipping. This has stopped 32 million kilograms of CO₂ from being released into the atmosphere.

A customer story

Packsize customer Mack Molding, which has been designated an Environmental Leader by the state of Vermont, is a leading custom plastics molder and supplier of contract manufacturing services. While minimizing cardboard consumption in its own packaging, Mack Molding expects to simultaneously recycle six times more corrugate during the next 12 months, from its current 45,000 pounds annually to 135 tons per year. This dramatic improvement is the result of three steps the company has recently taken to revamp its corrugated packaging operation.

The first step involves Packsize. As such, Mack will reduce its corrugated spend and improve operational efficiency through the Packsize on-demand packaging system, which produces right-sized boxes as needed for about 80 percent of its packaging needs. The Packsize system significantly minimizes the need for generic boxes that have to be ordered, received, warehoused, and ultimately tailored to suit various product sizes. "This wasted time, space, material and resources," says Jeff Somple, president of Mack's Northern Operations. "With Packsize, we fully expect to reduce our overall packaging costs by 20 percent."

Walking the talk

Sustainability is a core value built into every aspect of Packsize's own operations. Consistent with lean manufacturing principles, Kiessner places serious emphasis on sustainability and the environment, as does each of the company's employees. He recently wrote in the company newsletter: "I encourage all of us to seek opportunities in the workplace and at home to personally contribute to our collective ability to reduce our annual energy consumption by 2 to 4 percent."

And, true to its core value of "Build Sustainability into Everything We Do,"

Packsize proves every day its passion toward environmental conservation. How? Here are a few examples:

The power generation for Packsize's own factory and headquarters is 100 percent carbon neutral. The company's headquarters in Salt Lake City is powered entirely by wind- and water-generated electricity. Its Swedish manufacturing facility in Enköping is also 100 percent carbon neutral. Fleet management at Packsize minimizes emissions and operating expenses. When Packsize engineers, service technicians, or area sales managers drive to a customer's facility, they produce 85 percent fewer smog-forming emissions. Packsize selects the most sustainable and cost-efficient vehicles for its fleet. New proprietary packaging software drives sustainability and cost reductions by including a transportation planning module that gives Packsize the ability to anticipate customer needs in advance, enabling Packsize to optimize the supply chain and select the most sustainable shipping method for its customers' locations.

For all of these reasons, *Supply & Demand Chain Executive* is pleased to present Packsize with a 2011 Green Supply Chain award. ■

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