

Bob Cork, MD of BCA Barcode Alliance . . . urging FMCG manufacturers to operate in a 'greener' manner.



ENVIRONMENT

Software offers hope for a sustainable South Africa

South Africa's status as the world's 14th highest carbon emitter calls for manufacturers and retailers to adopt 'green' practices and engage in actions to address environmental concerns. So says Bob Cork, MD of BCA Barcode Alliance.

IN February, Al Gore received an Oscar for the documentary 'An Inconvenient Truth', and with that capped a year in which the world became universally convinced that global warming is real, and that it is largely caused by emissions from economic activity.

South Africa's economy has been developed on the base of cheap labour, inexpensive and dirty energy, and energy-intensive mining and industry. Taken together, these factors have created one of the most energy and carbon intensive economies in the world. Cheap energy was and is produced mainly from coal and oil. As a result, South Africa is the 14th biggest carbon emitter¹ in the world.

While this country's intensive energy users are dominated by metal processors, petrochemical manufacturers and mining companies, all manufacturing companies need to operate in a 'greener' manner to limit the environmental impact of their day-to-day business operations.

Nowhere is this more true than in the area of packaging design, pallet optimisation and truck utilisation. Internationally, there's an increasing demand for brand owners to reduce the use of packaging and the space occupied by their products, and local players should heed this call to ensure they remain competitive and environmentally friendly on a global stage.

CAPE Systems offers a variety of software tools to maximise a company's sustainability scorecard. The software allows companies to test different types of packaging materials, evaluate alternative package sizes and to improve both pallet and truck utilisation.

Internationally, companies are recognising the importance of reducing packaging material and space utilisation to decrease their carbon footprint. The world's biggest retailer, Wal-Mart, recently announced its plans to work with suppliers to cut packaging by 5% by 2013.

Reduced packaging has significant environmental impact

By working with just one toy supplier to reduce packaging, Wal-Mart reported that it required 497 fewer containers to ship the same number of items, saving 3 800 trees, 1 000 barrels of oil and US\$2.4m a year in shipping costs. This is just one supplier in one product line with 255 items².

CAPE software can assist companies to rethink packaging solutions without having to create samples for each test scenario. CAPE can be used to design and test new product sizes, shapes and packaging. The software can also be used to test the impact of these alternatives in terms of compression strength, size of primary and secondary packaging, pallet pattern layout and load optimisation. Thus, both the environmental and cost implications of any changes can be analysed at the same time.

Manufacturer's efforts to save the planet can be achieved by adhering to the four 'Rs' of sustainability:

Remove packaging: the software helps evaluate what happens to a product if a layer of packaging is removed, or material changed. This helps companies to reduce packaging or switch to new or renewable packaging materials without impacting on product safety.

Reduce packaging: taking into account existing product packaging and dimensions, the software evaluates different packaging materials, from corrugated to trays to films. It gives alternative dimensions while varying the volume to offer new packaging and product size alternatives, while trying to improve pallet load efficiencies.

Reuse packaging: the software evaluates virgin versus recycled content for sizing of packaging, tracks costs using the sustainability costing tool, and tests the strength of the material using the compression strength testing tool.

Revenue: the software tracks all fluctuating costs associated with materials, production, storage, handling, distribution and transportation. This can help a company improve profit margins, and, by comparing solutions, companies can compare costs of environmentally-friendly options and efficiencies relating to labour, material type and transportation costs.

Pallet optimisation reduces carbon footprint

Fewer pallets packed more intelligently into fewer trucks saves money while reducing oil consumption and emissions. It can also substantially reduce a company's warehousing and storage needs, as well as the number of vehicles required to transport products.

Companies can use CAPE software to maximise their pallet and container load efficiencies by evaluating alternative product and packaging sizes and calculating loads that are the most area and cube efficient.

In this way pallet needs can be automatically reduced by up to 20%.

¹ Sustainable Energy? discussion paper prepared by David Hallowes for the Sustainable Energy and Climate Change Project of Earthlife Africa Johannesburg, in co-operation with the Henrich Böll Foundation

² The Guardian, 2 February 2007

BCA Barcode Alliance is the reseller of CAPE Systems, which offers a variety of software tools to maximise a company's sustainability scorecard.
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