

Supply Chain News: The Impact of Packaging Optimization on Transportation Management

From 120 Units Per Pallet to 300; Suddenly, a Hot Area

SCDigest Editorial Staff

All of sudden, product packaging has become one of the hottest areas of supply chain management.

It started with soaring fuel and transportation costs a few years ago, as companies realized that “over packaging” and packaging redesigns offered significant opportunities to reduce the dimensions of products for shipping – allowing companies to ship more products in the same carton, pallet or trailer. That directly lowered transportation costs.

Perhaps the most notable example of this were the redesigned milk cartons put into use at several warehouse clubs and other retailers – the more rectangular design allowed palletization of the milk and twice as many cartons to be shipped in a full truck load. (See [New Milk Jug Design Shows Promise of Improved Packaging to Reduce Transportation Spend.](#))

Then, even as transportation costs moderated, [Green Supply Chain](#) considerations started to rise, where packaging again is seen as playing a critical role, both in reducing waste and eliminating energy use – and with that also reducing transportation expense.

“Packaging for many products has been over-engineered,” said **Tom Blanck**, a packaging manager at [Adalis](#), a global provider of packaging solutions headquartered in Minneapolis, in a recent Videocast from Supply Chain Digest and The Supply Chain Television Channel. He said that can mean substantial opportunities to take costs out of packaging materials – and supply chain and logistics processes. (To view an on-demand version of that

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Videocast, go to: [Thinking Inside the Box: Role of Packaging in Supply Chain Optimization](#) .)

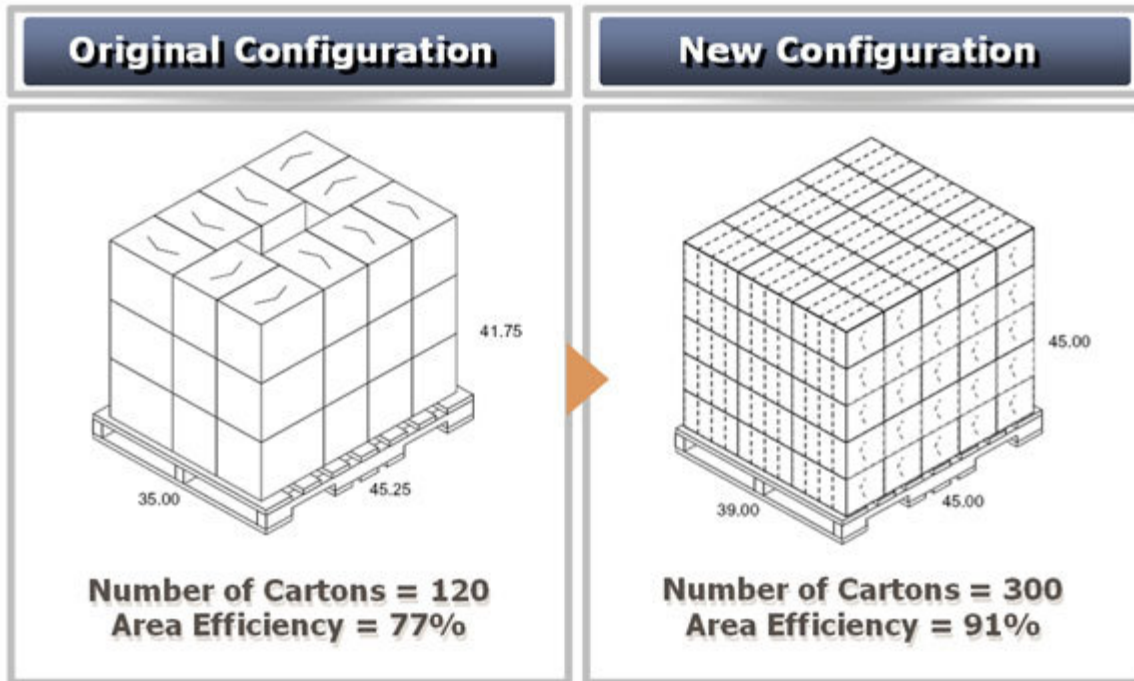
For example, Adalis found that for one telecommunications industry company, a package redesign was able to increase the units that could fit on the pallet from 120 to 300 – a dramatic increase that directly reduces transportation costs for that product. (See graphic on page 2.)



Blanck said that previously, the company put four units – themselves packaged – inside a case pack, even though the selling unit was generally a single item. By reducing the size of the unit packaging by just 1.5 inches in one dimension while modestly increasing its strength, the manufacturing was able to get rid of the masterpack cartons, and dramati-

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1.5 Inch Change Leads to Major Increase in Logistics Efficiency



Source: Adalis Packaging Solutions

cally impact pallet efficiency.

“There was a lot of materials and a lot of space being used,” Blanck said. “The redesign means a lot more product on each pallet, which means fewer pallets need to be shipped and handled.”

While not all companies have opportunities of that magnitude, most have many opportunities to reduce packaging and/or logistics costs. That’s in part because given the attention now being paid to packaging, R&D by packaging materials vendors is growing, resulting in new materials and ideas constantly coming to market.