

Keeping fish fresh and cold – better and cheaper

The fish industry has high demands when it comes to material properties, especially in the boxes used for packaging and delivery. They need to be hygienic and certified for food use, waterproof and grease-repellent, and at the same time have good isolation qualities. Typically, the packaging has been made out of expandable polystyrene. Plastics like EPS are some of the biggest contributors to ocean pollution, which is currently being highlighted as a great threat to our environment and planet.

Stora Enso product developers took on the challenge to come up with a sustainable alternative. The goal was to create a fish box with equal or higher performance in all functional aspects. The result is the patented EcoFishBox™ by Stora Enso concept.

With an innovative design, the recyclable cardboard box is both grease-proof and waterproof - and easy to rinse off. The isolating properties of the container-board keep the goods below 4 degrees celsius beyond 64 hours. The smart design and material structure ensure the goods are transported safely through the supply chain. The solution serves to replace the plastic without compromising on the performance of the packaging.

The major reason for using the EcoFishBox might not be the “Eco” part, but the cost reductions. The folded corrugated box uses only 1/7 of the space a traditional box would. That way, the fish industry can dramatically cut costs associated with lorry transport and storage space.

In an EcoFishBox you'll find only 6–9% of the plastics while the rest of the materials are from renewable sources. In comparison, EPS boxes are fully based on fossil materials.







THE BOTTOM LINE IS FLAT
Corrugated boxes can be delivered flat and be folded flat after use. Hence, the dimensional volume is only 1/7 of a traditional EPS box, which saves space in transport and production. A win for both environment and budget.



Let's innovate together

True innovation seldom happens in isolation, but in collaboration. You understand the unique challenges of your business, product and market – and we can help you respond to your customers' and consumers' need for more eco-friendly, renewable materials and packaging. Through our research, experience and product portfolio we can help you capture the potential in packaging, optimise the value chain and reduce costs, as well as explore business opportunities for future growth. That's why we invite you create sustainable packaging concepts together in an Innovation Workshop.

			
Sustainable packaging concepts for better business	Reducing waste through resource-efficient materials and design	Replacing fossil-based materials with renewable alternatives	Lowering environmental footprint with easily recyclable materials

Together, we can take a total view of packaging needs and possibilities for the short and long term. Stora Enso can also help with operations and assist in implementations.

New, fibre-based materials for all applications
Applications for packaging products made out of corrugated board, wood fibres and renewable materials is constantly growing, with exciting new designs and technologies every year. What used to be a bulky product made of 100% plastic can now be replaced by a more environmentally friendly solution. We will see even more types of wood fibre-based packaging materials with advanced functionality in the near future. Advancements in materials such as biocomposites, molded fibre and micro-fibrillated cellulose will enable even higher business value from packaging materials – by enhancing sales, reducing costs, and helping to meet the world's growing demand for eco-friendly materials.

Do you want to learn more about us? Would you like us to organize an Innovation Workshop for your company? Please contact us by sending an email to our Senior Innovation & Business Development Manager Julia Netrval at julia.netrval@storaenso.com.

Everything that can be made out of fossil-based materials today, can be made out of a tree tomorrow.

About us: Stora Enso is a leading provider of renewable solutions in packaging. Our aim is to replace fossil-based materials by innovating and developing new products and services based on wood and other renewable materials. Our solutions serve leading con-

verters, brand owners and retailers. Learn more about what renewable packaging solutions can do for your business at storaenso.com

ViewPoint



The future of packaging: Insights and reflections from Stora Enso



Replacing plastics in packaging helps your business grow

How replacing plastic with renewable materials can profit both the environment and bottom line.

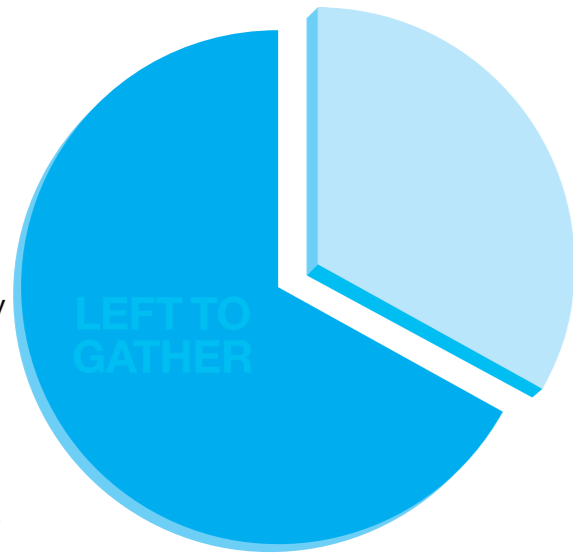
Printed material LumiSilk 250 g/m2.

Plant a new perspective on renewable materials

As the world is littered with plastic and global temperatures rise, the need to replace fossil-based products with renewable solutions becomes ever more critical. Many companies are switching from non-renewable plastic packaging, inserts and wraps to renewable options.

Brands like Unilever, Nestlé and Lego are all committed to using fully recyclable, reusable or otherwise sustainable packaging materials by the year 2025. Retailers such as ICA, Carrefour, Tesco and Iceland have

Even if some plastic is recyclable, less than 1/3rd of all the plastic waste being collected for this purpose.



similar goals to meet customers' and consumers' demands on more eco-friendly materials. This is a big win for the environment, and an excellent driver for product development from an environmental perspective.

For companies like these, it's a business investment. Renewable, fibre-based material is often comparable if not better in the functional and financial aspects - all the more reason for sustainable solutions.

Increase sales by choosing the right packaging material

From inbound logistics to store operations and customer sales, choosing sustainable packaging materials can bring improvements along the entire packaging value chain.

Innovative fibre-based packaging solutions enable weight, waste, and space savings, resulting in more efficient use of transportation and warehousing capacity. Even the in-store handling can be made more efficient, and retailers can gain up to 4% net sales increase in an addressed category.* This gives proof that top line growth can go hand in hand with environmental benefits and lower carbon footprint using using renewable, recyclable materials.



* Source: Stora Enso, A.T. Kearney

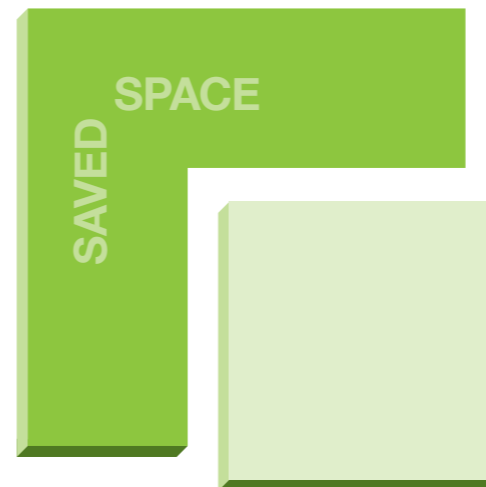
For a furniture company, getting rid of plastic helps to reduce logistics – and lift the service and brand experience

To protect products from damages in logistics and handling, expanded polystyrene (EPS) inserts are commonly used in many packages. But packaging with EPS and plastic wrapping is not doing the planet any good. Lightweight plastic can float down waterways and eventually make it to the sea. Over time it breaks down into microplastic, and is ingested by marine life. When a large Swedish furniture company set ambitious targets for reducing its plastic usage throughout the value chain, they came to Stora Enso. We helped them redesign their packaging and get rid of the EPS.

When switching from plastic to paper-based materials, there are other benefits. Strong and tough corrugated board makes it possible to streamline package design even more.

The furniture packages Stora Enso created were smaller and flatter than before, and consisted of one single material instead of several. Space savings brings financial benefits in the logistics chain, resulting in a better profit margin on each product.

Smaller packages are cheaper to ship and move around.



MAKE IT EASY TO RECYCLE
Help the clients and customers! With the entire package made from corrugated board, there's no need for disassembling before throwing it in the recycle bin.

Helping Husqvarna above and beyond plastic replacement

The machines and tools that Husqvarna produces are often heavy and oddly shaped. Cutting equipment, chainsaws and lawn mowers; objects with wheels, long handles and blades sticking out. EPS used to be the go-to-material for any inserts, but it's a bulky and environmentally harmful material. Stora Enso has helped Husqvarna re-think its packaging choices for the last few years, and together we have made some interesting packaging innovations.

The chainsaw packaging design has reduced the carbon footprint for Husqvarna by 190 tonnes of CO₂ every year.



It doesn't matter if the product is a meter and a half long or an asymmetric brush cutter. Switching from EPS to paper-based inserts will typically reduce the overall dimensions, while still keeping or improving all protective packaging functions. And when needed, non-square boxes for the outer package are always possible, even if made by corrugated board.

One of our most innovative collaborations with Husqvarna is a cone-shaped box for a chainsaw, making it possible to ship more products on every pallet. Costs down!



HAPPIER CUSTOMERS
Good package design can make customers happier. With better protection of the machinery, product complaints and returns can decrease significantly.

