

# Boardpaper



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Stora Enso Consumer Board Newsletter 2/2019

## Cupforma Natura Solo

for effective recycling

## New gas-tight board tray

replaces plastic in chilled food  
packaging

## Assessing the life cycle

of our renewable products



Dear reader,

How do you know which packaging is the best option for the environment? One is made from renewable materials, while another consumes less energy in production – how do you assess them?

In this issue of Board Paper we present a number of innovative products aimed at making our customers more eco-friendly. We also take a look at Life Cycle Assessment, a tool for analysing the impact of a material, product or service in selected life-cycle stages, revealing its potential both from an environmental and human health perspective.

Stora Enso creates innovative products that are sustainable throughout their life cycle. Good examples can be found on the following pages. We hope you enjoy the issue!

**Sanna Heiskanen**  
Editor

## Assessing the life cycle of our renewable products

The carbon footprint and many other ways of measuring the environmental impacts of products are based on a Life Cycle Assessment (LCA), a compilation and evaluation of the inputs, outputs and potential environmental impacts of a product system throughout its life cycle.

“A life cycle assessment can be used when designing a new product or evaluating an existing one. The process helps companies understand where the emissions related to their products come from. This helps us improve the way we operate and create renewable materials and products that are better for people and the environment. We also provide our customers with life-cycle data,” says **Tiina Keskisaari**, Senior Manager of LCA at Stora Enso.

LCAs also make it easier to understand the environmental and human health impacts of competing products. Companies, for example, can use the information to study the environmental performance of different packaging materials, and to make decisions that can help them reach their sustainability goals. The EU has also recognised the benefits of LCAs and is currently exploring how to use footprint methods in union-wide policies.

### **The making of an LCA**

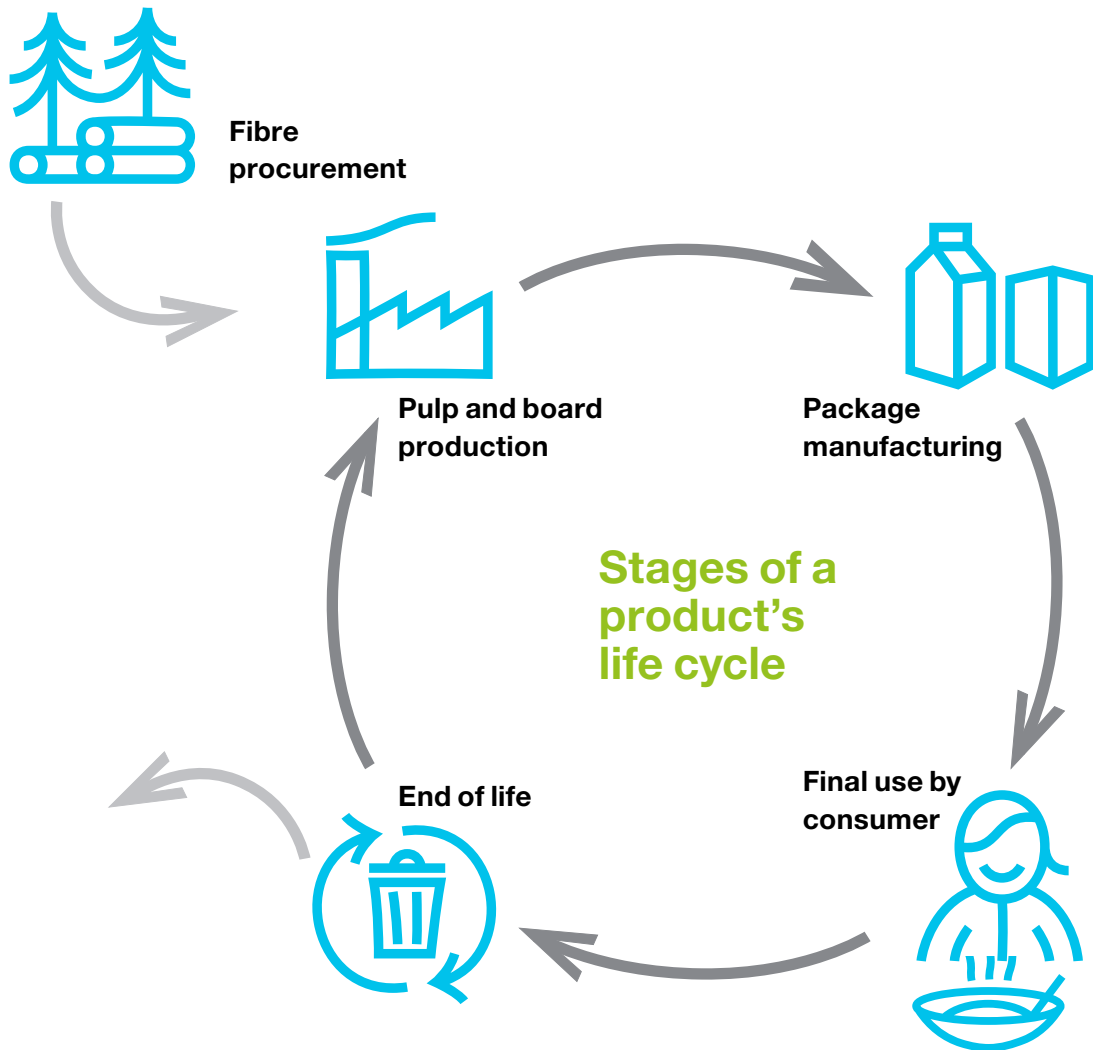
At Stora Enso, LCAs may look at many impacts, such as resource consumption, contribution to global warming, potential health impacts and ocean pollution, or they may demonstrate recyclability.

Depending on the end goal, an LCA can cover all or only selected stages of a product’s life cycle.

“Most of the LCAs we conduct cover only the parts of the value chain that we can affect. For consumer board products, it means that we leave out further converting, filling and printing, product use, and end-of-life stages from our calculations, but we may sometimes include them, depending on the purpose of the study. The impacts of the procurement of our renewable raw material – wood – are, of course, always included,” says Keskisaari.

“It’s a vigorous process of gathering data, processing it further, interpreting results and evaluating our work as we go. But it gives us and our customers invaluable information about product features and process parts that perform well, but – perhaps more importantly – also those that need improvement. We can only make changes if we know what needs changing,” she stresses.

The entire process, including the results, is thoroughly reviewed by Stora Enso experts. When LCA studies include comparisons, for example between competing materials, the results and process are also reviewed by independent external experts.



**“A life cycle assessment helps us improve the way we operate and create renewable materials and products that are better for people and the environment.”**

**Meet Stora Enso at these upcoming events!**

**FachPack**, Nuremberg  
 24–26 September 2019  
 Stora Enso stand: 9-361  
 fachpack.de

**LuxePack**, Monaco  
 30 September – 2 October 2019  
 Stora Enso stand: Hall Ravel  
 luxepack.com



## Wood-fibre-based biocomposite solutions for packaging

Stora Enso is introducing new wood-based biocomposites for cosmetics, food and luxury brands seeking alternatives to plastic packaging. With the help of DuraSense™ by Stora Enso, customers with very high demands for aesthetics and tactile values can make their packaging more eco-friendly.

DuraSense is a blend of wood fibres and polymers, which can be fossil- or bio-based. It offers brands a more eco-friendly alternative to plastics while improving

sustainability performance and reducing the carbon footprint.

“Reducing the amount of plastic is high on our customers’ agenda. With DuraSense we can now offer different biocomposite solutions, such as caps and bottle stoppers, to demanding customers with extremely high standards in both aesthetics and quality,” says **Hannu Kasurinen**, SVP Head of Liquid Packaging and Carton Board.

DuraSense is a cost- and resource-efficient alternative for

reducing the environmental impact of products. With little or no change to existing production techniques, the biocomposite material is developed to match conventional plastics and therefore fit existing moulds.

“With wood-based biocomposites, the consumption of plastic materials can be reduced by up to 50%, ensuring that less plastic ends up in the environment. DuraSense can also be reused as a material up to seven times, recycled along with plastic materials or used

“Reducing the amount of plastic is high on our customers’ agenda.”

## Designed for effective recycling

Stora Enso is introducing a new product as part of its Cupforma paperboard product family. The new Cupforma Natura Solo™ by Stora Enso is suitable for hot and cold drinking cups, as well as for ice cream packaging. It is produced without a traditional plastic coating layer and designed for full fibre recovery in a recycling process.

Stora Enso is actively developing new renewable solutions to support coffee houses and fast food chains in their efforts to improve their environmental footprint and to respond to consumers’ need for sustainable choices.

“We are seeing strong demand for eco-friendly solutions in food-service packaging. Consumers demand convenience, but in a sustainable way. Recycling will reduce the carbon footprint of a paper cup by half, and the entire value chain benefits from innovations in renewable materials. Cupforma Natura Solo is yet another step on our journey to help customers reduce the use of plastics,” says **Hannu Kasurinen**, SVP, Head of Liquid Packaging and Carton Board, Consumer Board division.

“We are proud to start introducing Cupforma Natura Solo to our customers to further drive renewable and circular solutions and to enhance the value of food-service packaging,” says **Ebba Mannheimer**, Head of Business, New Barrier Solutions, Consumer Board division. “We have trialled Cupforma Natura Solo with customers in Europe and have proved that it works like traditional PE-lined cups, so no new converting technology is needed. In addition, this innovative material can increase the value of used cups in recycling, as the barrier breaks down in a recycling process, and all fibres can be utilised.”

The Cupforma product family offers several options for paper cups. The fully renewable Cupforma Natura PE Green provides an easy switch from fossil-based polyethylene. Cupforma Natura Bio is industrially compostable. Together with the different barrier options, Cupforma boards provide a functional solution for all kinds of drinking and packaging cups.

for energy recovery at the end of its life,” says **Lars Axrup**, Head of Business Sustainable Packaging Components.

Stora Enso started the commercial production of biocomposites in 2018 and has the largest capacity in Europe dedicated to wood-fibre composites.



## New Natura with MFC

New Natura™ by Stora Enso is a liquid packaging board enhanced with micro-fibrillated cellulose (MFC) for extra strength and lower weight. It was introduced for milk cartons in 2015, but now the material is available to all customers who want to reduce the weight and improve the sustainability of their packaging.

Stora Enso runs the world's largest MFC production facilities at its Imatra Mills in Finland. MFC has the same basic chemistry as cellulose fibres but consists of smaller particles called micro fibrils, which improve the strength of the board.

According to Product Manager **Vesa-Pekka Aaltonen**, the New

Natura enhanced with MFC delivers the best in product protection, as well as printing, converting and filling performance, but at a lower weight. It helps packaging manufacturers and consumer brands use fewer raw materials, create less waste and lower their package weights. For consumers, the carton remains easy to recycle, which is very important for today's eco-aware consumers.

The New Natura enhanced with MFC can be used in any gable-top liquid packaging application: dairy products, juice, other beverages, soups and spices. It is available with a PE or high-barrier coating, depending on the packed product

and the barrier properties required to protect it.

"Stora Enso has been a pioneer in the development of MFC for decades, and today we can tailor the fibres to fit the purpose. Our MFC makes the fibre mesh stronger, so we can reduce the board's weight without compromising its stiffness, strength or other properties that are vital to the performance of the packaging. This saves raw material and makes New Natura an even more sustainable, renewable and recyclable raw material for beverage cartons," says Aaltonen.





“This is a breakthrough and will certainly gain high interest among food companies looking for more eco-friendly alternatives.”

## New gas-tight tray to reduce plastic in chilled food packaging

AR Packaging has introduced gas-tight pressed board tray packaging for chilled foods based on technology developed together with Stora Enso.

The new tray provides a cost-effective and sustainable alternative to plastic trays, with a high proportion of renewable materials and the attractive look and feel of paper. The trays are produced using new tray-pressing technology, and their material is the barrier-coated board Trayforma™ by Stora Enso.

The board trays are supplied together with a matching lidding material, which provides a safe seal and a barrier adapted to the packed product's needs. The trays are converted by CC Pack and the

lidding material is from Flextrus, both members of AR Packaging and situated in Sweden. AR Packaging is already running trials of the new trays with several major chilled-food producers in Europe.

“The increasing demand for sustainable packaging has led to an intensive search for gas-tight board trays. We have invested major effort to develop this new packaging solution together with Stora Enso. The shape of the tray is optimised to ensure tight packs, providing a shelf life of up to 18 days, depending on the packed product. The trays thus meet the requirements for a wide range of chilled food products, such as fresh meat and chicken, processed meat,

cheese and ready meals,” says **Åke Larsson**, Managing Director at CC Pack.

“We are pleased to see a new renewable packaging solution entering the market as a result of our co-operation. The new tray is a sustainable packaging option for chilled food products, a market segment that has been dominated by plastic so far. This is a breakthrough and will certainly gain high interest among food companies looking for more eco-friendly alternatives,” says **Henna Paakkonen-Alvim**, Vice President, Innovations, Stora Enso Consumer Board Division.

”Arctic Deer is a key  
Consumer Board  
product in China.”



## Arctic Deer launched in China

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Stora Enso's offering in China has broadened with Arctic Deer™ by Stora Enso, a new, premium folding boxboard from our Beihai mill. The product is renewable and traceable, intended for packaging for food and pharmaceuticals and for the graphical industry.

“China is one of the world's largest and most dynamic markets, and we are committed to providing premium, convenient and eco-friendly packaging materials and solutions for a wide range of brands and converters from our mill in Beihai,” says **Pentti Ilmasti**, SVP China, Stora Enso Consumer Board division.

Arctic Deer is a key Consumer Board product in China. It is targeted to

premium and demanding customers, where eco-friendly packaging is important for the brand and for consumer loyalty. With its good foldability and printability, it offers versatile design possibilities. The board has high stiffness even at a low grammage. Arctic Deer is safe in direct food contact.

Stora Enso Beihai Mill has obtained FSC® (Forest Stewardship Council) certification to ensure the traceability and sustainability of its raw material. The mill complies with food contact regulations in China, the United States and the European Union and is certified according to the FSSC 22000 food safety system.