

Boardpaper



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Stora Enso Consumer Board Newsletter 3/2019

Renewable
and circular

is the winning combo in packaging

SIA Glass

switched to FiberCup

Focus on
the cup

and the coffee culture



Renewable and circular – the winning combo in packaging

Earlier this year Stora Enso joined the New Plastics Economy Global Commitment to eliminate plastic waste and pollution at the source, led by the Ellen MacArthur Foundation. But what does it mean in practice? Is plastic really that bad, and how can one make truly sustainable choices? **Eija Hietavuo**, SVP Sustainability at Consumer Board division explains.

What is the New Plastics Economy Commitment?

Plastic waste is a global problem as it pollutes our seas and the environment, enters our food chains and affects our health negatively. This commitment unites businesses, governments, and other organisations behind a common vision to address plastic pollution at its source. The idea is to change how we produce, use, and recycle plastic. Stora Enso's role here is to find better alternatives to unnecessary plastics, to come up with solutions that are made of

renewable materials that are functional and can be recycled.

Is there a problem in recycling plastics?

The world is running out of raw materials and fossil plastics come from a finite source. Using materials that are renewable means you take an alternative that grows back. Trees in sustainably managed forests grow over and over again, and their fibres can be recycled to produce valuable raw material.

The recycling of plastics is challenging, as there are so many types of plastics that can't be mixed in the recycling process. The vast majority of plastic waste gets incinerated. Eurostat's statistics show that only 42.4% of plastic packaging is collected for recycling in Europe, while the corresponding number for paper and cardboard packaging is a whopping 84.8%.

But I want to make it clear – replacing fossil-based plastics with renewable materials is a journey that will not happen overnight. We can start by targeting unnecessary plastics, the kind that we can easily live without or the kind that we can replace with a renewable alternative.

How can Stora Enso products help to reduce plastics?

There are many to mention: Trayforma by Stora Enso for food trays and Cupforma Natura Solo for paper cups without a traditional plastic coating layer and designed for full fibre recovery in recycling. EcoFishBox by Stora Enso can replace traditional polystyrene fish boxes in transportation.

We also have really interesting recent developments on the consumer packaging side. Formed fibre for packaging has the potential to completely replace a wide range of plastic packaging. Its technology enables the creation of products that are circular by design, meaning that they are renewable, recyclable and biodegradable and do not include any plastic. In addition, our micro-fibrillated cellulose (MFC) has the potential to replace flexible plastic in different end uses.

It's not possible to recycle fibre-based packaging in all countries. What are you doing about that?

A lot. We are working together with our value chain to find solutions. One example of this work is EXTR:ACT, a new platform to drive the industry's engagement in carton recycling across Europe. We also actively engage with customers regarding recycling options





Eija Hietavuo

in different locations. If we are, for example, selling fibre-based cups to a coffee customer in Germany, we will discuss the recycling opportunities in the areas where they operate and what kind of alternatives exist for cup collection.

How can we as consumers make truly sustainable packaging choices?

Firstly, avoid unnecessary packaging. Secondly, see if you can reuse your packaging, and then recycle it. Thirdly, whenever possible, choose renewable packaging as it is a fossil-free choice.

Packaging has a huge role in combatting the global problem of food waste which contributes to climate change. A truly sustainable package is right-sized and protects the goods inside until they have been consumed. As a consumer your job is to make sure none of the food or beverages you buy goes to waste!

Dear reader,

The cup is a symbol for all take-away packaging. With an increasing number of companies making the move to sustainable cups, taking the lead in informing the industry, brands and, ultimately, the end user about a sustainable, high-quality – and recyclable – paper cup is a sign of eco-awareness and a responsible act. That's why we focus on cups in this issue of Board Paper.

Stora Enso has established a Circular Packaging Program to drive the development of circular business cases and concepts in collaboration with our value chain partners. The cup recycling trial at our Langerbrugge paper mill is one of the key initiatives. The collection and sorting of used paper cups would be a giant step forward for circularity in the food service industry.

Everyone has a stake in sustainability – we in the packaging industry, the brands and retailers, and each of us as consumers.

Sanna Heiskanen
Editor

Used paper cups recycled into magazine paper

Stora Enso is looking into recycling used paper cups on a large scale at its Langerbrugge Mill in Belgium. Based on production trials, the mill has the technical feasibility to recycle paper cups into magazine paper.

In recycling trials, half a million baled post-consumer paper cups collected from fast food restaurants and coffee houses were re-pulped and recycled into magazine paper. The result confirmed that paper cups can be recycled at the mill

without any additional process equipment, and that the fibres are well suited for other paper applications, such as magazine paper production.

Used paper cups provide a potential source of high-quality fibre for the production of magazine paper. The mill has the technical readiness to accept billions of used cups for recycling within its sourcing area. The challenge is more about getting these cups to us on the industrial scale that the production would require.

Coffee cups matter

Billions of people everywhere enjoy coffee from paper cups on the go, at cafés or at work daily, but what do they really think and feel about the cups? Our insight study from the United Kingdom and Germany provides some interesting answers.

The research included a survey among coffee consumers and interviews of different stakeholders such as coffee industry experts, baristas, waste management experts, social scientists and sustainability influencers. The results show that cups matter a lot, but in ways that are not immediately obvious.

A haptic and social experience

Drinking coffee is a haptic experience. Cups perform a vital function, and a flimsy cup can lead to an 8% drop in perception of the quality of the coffee. The cup needs to keep the coffee warm while warming its drinker, but without burning their fingers. The inside of the cup could be used for a surprise effect, as most people tend to remove the lid to see and smell the coffee!

About coffee culture

- Most people describe their perfect cup of coffee as hot, with milk or cream
- Big coffee chains dominate – but two in five people also visit smaller chains or independent cafés
- Over half of those surveyed consider cup recycling and sustainability when deciding where to get their coffee
- Cleanliness and tidiness are top priorities in coffee shop selection – and cups matter.

According to psychologists, drinking warm coffee also makes you feel warmer towards other people.

“If your cup is made from a material that the consumer associates with being natural, authentic or homemade, then you’ll convey those attributes and produce that feeling in them,” one of the interviewed experts summed up.

A cup says something about the person holding it – there are millions of Instagram posts with the hashtag #coffee, and nearly three in five people under 40 share pictures of their take-away coffee on social media. More than a third of Germans and two out of five Brits choose to drink coffee in take-away cups, even when staying at the café. In this new era of sharing, posting a picture from a popular café with a branded cup in your hand communicates your lifestyle. The printable surface of a paper cup is a great media: the brand is physically close to the consumer, who then shares it socially.

Paper cups are convenient and hygienic

Whether asking experts or consumers, plastic cups are simply out, for obvious reasons. Paper cups are more acceptable. According to our study, British consumers prefer paper cups over reusable cups, as paper cups are more convenient and hygienic.

Several experts point out that the media’s criticism of paper cups is not fact-based, and that the value chain is working hard to take responsibility for recovering and recycling the fibres from cups. There is an industry-wide acknowledgment of the need for a more collaborative effort in the paper cup value chain to protect against public misinformation. Adding information on how to recycle cups directly to the cup material is an easy win.

“A cup says something about the person holding it.”



A look at the carbon footprint of cups

Coffee cups made of different raw materials were recently investigated in a critically reviewed comparative LCA (Life Cycle Assessment) study commissioned by Stora Enso and Huhtamaki and conducted by the research company VTT. The paper cup has a low carbon footprint, especially if the cup is fully made of renewable raw materials.

The life cycle stages were assessed all the way from the raw materials and production of cups to their use by the consumer and finally their end-of-life. Single use paper cups with three different coating options (fossil PE, renewable PE Green and compostable Bio coating) were compared with reusable plastic, steel and ceramic cups.

Based on the life cycle assessment, paper cups have a low carbon footprint in most everyday scenarios. When it comes to reusable cups, 90% of their life cycle emissions were found to be caused by dishwashing. When comparing paper cups with different

coating options, the FutureSmart cup by Huhtamaki, made from the 100% renewable Cupforma Natura PE Green, proved to be the best performing cup.

Recycling has a considerable impact on the carbon footprint of paper cups: it reduces the carbon footprint of a fossil-based PE coated paper cup by 55%, and for a fully renewable, PE Green coated paper cup the reduction can be as much as 64%. Biodegradable paper cups composted with food waste have slightly higher CO₂ emissions since the barrier must be thicker to ensure the cup's quality.

Packaging or cups make up only a small proportion of the climate impact of manufacturing food and beverages. For example, if you have a cup of latte on the go, the climate impact of the paper cup is just 49% depending on whether it has a plastic lid or not, while the rest, over 90%, comes from the coffee and milk production and energy of making the drink.





Gable-top carton collects awards in dry food

A leading Italian flour producer, Molino Rossetto, is collecting awards for its innovative paperboard packaging. The key to their success is a specially designed, renewable and recyclable gable-top carton, which differentiates the brand effectively and adds value for consumers in everyday use.

Molino Rossetto is the first company in Italy to introduce a gable-top carton with a cap closure for flour packaging, which brought them the ADI Packaging Design Award and the DolciSalati & Consumi Award for the “Best Packaging” earlier this year. The redesigned gable-top carton called V-Pack stood out as an innovative and sustainable packaging solution for dry food, which adds value to the entire product category.

“We are proud to be the first flour producer to introduce such an innovative packaging solution based on the design and filling expertise by Italtapack and Galdi and the renewable material from Stora Enso. We selected this carton as it is perfectly in line with current trends that emphasise the environment and nature, but at the same it looks innovative and is very practical for consumers to use,” says **Chiara Rossetto**, Managing Director of Molino Rossetto.

Designed for effective brand communication

V-Pack has been developed by Italtapack Cartons in co-operation with filling machine supplier Galdi. It is made of the renewable Natura™ by Stora Enso board with PE coating on

both sides to keep the contents safe and dry. Thanks to easy opening and closing as well as a four-level quantity indicator, the carton is practical to use in the kitchen, while keeping the flour well protected. After use it can be easily disposed of in the carton recycling stream.

“Gable-top cartons are typically used in liquid packaging, but now this package type is gaining ground in new applications. V-Pack provides high communication potential and stands out on the shelf with its unique shape and customised front panel window. The total solution can be replicated for other dry food brands who want to differentiate their products and enhance their brand image and consumer experience,” says **Fabio Gala**, Commercial Director at Italtapack.

Finnish youth want their food in cartons

More than half of Finnish youths say that they prefer cartons over plastic packaging when choosing food products. The renewability of the packaging material is important especially for those young people who are most concerned about climate change. This was found in a survey commissioned by Stora Enso and Valio.

For youths, renewable material is an important feature in food packaging. Renewable raw materials are important for two thirds of the respondents, and renewability is considered to be more important than the compostability or ease of use of the packaging. The renewability of the packaging material holds the greatest importance for the young people who are most concerned about climate change – close to 80 per cent of them say that renewability is important for them. According to the survey, the role of packaging in ensuring the cleanliness and quality of the food product and in reducing food waste is also an important feature.

The views of Finnish youths on climate change, food, food packaging materials and Finnish companies' measures to mitigate climate change were surveyed through the consumer panels in May 2019. More than 1 000 youths, representative of Finns aged 15–29 in terms of age, gender and geographical location, responded to the survey.

SIA Glass switched to FiberCup

The Swedish ice cream brand SIA Glass is introducing a new, renewable packaging from Arta Plast for part of its range. Made from paperboard Cupforma Natura™ by Stora Enso, the new package contributes to the company's environmental sustainability by reducing the climate impact 50% compared with the former plastic package.

SIA Glass is part of Sweden's oldest family-owned company, Bertek Group, with a tradition of locally produced, high-quality foods since 1569. Today SIA Glass ice cream is sold in supermarkets everywhere in Sweden. The company aims to halve its climate footprint by 2025 and will therefore be reviewing its entire portfolio in order to reduce fossil-based material in packaging. As the first step on the journey, SIA Glass switched its organic and lactose-free store range to a 0.65-litre bowl made of paperboard from Stora Enso.

"It was a challenge to find an innovative, renewable package that can help us reduce fossil-based material, since we couldn't compromise the oval form, which is an established part of our brand. It constitutes 94% of the brand awareness among our consumers. So, for us the form, sustainability and leakproofness are the most important aspects of packaging," says **Stefan Carlsson** from SIA Glass.

SIA Glass discussed their requirements with the Swedish packaging manufacturer Arta Plast, who presented FiberCup as a solution that provides the low carbon footprint, formability and functionality required. More than half of the FiberCup is renewable material, and it can be disposed of in carton recycling in Sweden. The switch to FiberCup reduces the CO₂ emissions of SIA Glass by 109 tonnes per year, which is 37% fewer emissions compared to plastic packaging.

"For SIA glass, packaging is high on the agenda. The company has been around for over 450 years, and sustainability has always been an integral part of our business. Consumers are increasingly demanding renewable packaging which is as fossil-free as possible. The new pack is now used for part of our portfolio, but it is a step in the right direction, and we will continue to look for low carbon packaging solutions for our entire range," Stefan Carlsson says.

"It was a challenge to find an innovative, renewable package."



New compostable package for Carte d'Or



are evident. The raw material comes from traceable and sustainable sources. The paperboard bowl is 23% lighter than the former plastic packaging, and it helps Unilever to reduce plastic drastically. As the total consumption is 11 million packages per year, the new package enables Unilever to reduce plastic use by 520 tonnes per year or 10 tonnes every week.

The nestable lid, also made from compostable paperboard, is manufactured using a unique and proprietary technology developed by Seda International. According to **Armando Mariano**, R&D Product and Material Director at Seda International Packaging Group, the goal of the project with Unilever was to make something different from the former plastic packaging, reduce packaging weight, plastic content and improve the end-of-life options.

Giorgio Nicolai, Marketing Director for Unilever goes on to say, "Unilever is aiming for a more circular economy in many ways, and new packaging innovations are crucial to achieve our target of making all our packaging reusable, recyclable or compostable by 2025. Unilever has also signed a two-year partnership with the WWF to clean beaches from plastic."

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Unilever has introduced its Carte d'Or ice cream in new paperboard packaging in Italy. The bowl is made from PEFC certified renewable fibre with a biodegradable barrier coating, and after use it can be either recycled or composted in industrial composting.

The Carte d'Or packages are produced by Seda Italy in Naples, and the material is Cupforma Natura™ by Stora Enso. The board has a biodegradable barrier on both sides to preserve the ice cream safely in freezing and moist conditions.

Ten tonnes less plastic every week

The benefits of the new paperboard bowl over the former plastic packaging