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NEWS AND VIEWS FROM ELOPAK'S WORLD OF PACKAGING

ELOTALK



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Sourced from Scandinavian forests

Thise Dairy is the first in Denmark to launch cartons based on resources sourced 100% from Scandinavian forests.

Throughout 2020 Thise, the organic Danish dairy, will introduce its products packaged in Pure-Pak® cartons with Natural Brown Board and forest-based renewable polymers.

For Thise, pioneers in organic milk, this is an important step towards a more climate-friendly daily life. All plastic in the cartons is based on tall oil – made from responsibly managed forests in Scandinavia. The reduction of CO₂ emissions is 16% compared to existing cartons, which amounts to approx. 150,000 kg CO₂ per year, according to Thise.

“During the first half of 2020, we expect that most of the Thise dairy packaging will be replaced with the new carton. Thus, consumers who add Thise, Änglamark,

Facts 365 and Irma milk to their shopping basket are contributing to a significant climate reduction.”


With the Natural Brown Board, the cartons have one less layer and therefore uses less materials and resources. With the different carton look, the dairy will still maintain the well known Thise look.

“The colour of the carton is clearly darker and thus appears more climate correct. We have decided to preserve the known milk signature colours together with the special Thise design, which we know is appreciated by our customers,” states Poul Pedersen.

Thise will also change to closures based on tall oil from pine trees in Scandinavian forests.

“We will now be able to have a milk carton, which is entirely based on renewable and regional sources,” says Poul Pedersen, Director of Thise Dairy.





"We test the interaction
between the product and
the packaging materials"

Sensory Science is the
understanding of sensory
perceptions of food and
other stimuli through
sight, taste, smell, touch
or hearing.

Centre of innovation

Innovation at Elopak is not just about a new carton shape, design, or state-of-the-art filling machine – it is also about what you can't see: ensuring food safety, taste and product integrity during shelf life.

The Elopak Technology Center (ETC) in Spikkestad in Norway is a house of knowledge about liquid food packaging. Here we take care of the most demanding and delicate products such as fresh milk, ensuring that quality, taste, nutrition and shelf life is protected.

THE SENSORY DETECTIVE

At the Elopak's Technology Center sits its sensory lab, run by Liv Bente Strandos, Manager Sensory Services. Here packaging materials are qualified for use through a strict regime of sensory testing.

For our customers, the sensory quality of a product; its texture, flavour and taste, aroma and visual aspect

is critical. These qualities need to be maintained when a change, no matter how small, is made to packaging materials or production.

The sensory quality closest to the consumer is taste. Liv Bente explains there are many possible sources that can influence an unwanted off taste.

"When we talk about qualifying packaging materials – from raw materials to finished product – there are so many things that can influence the sensory quality of the product," says Liv Bente. "We need to consider the raw materials: board, polymers, barriers, inks and closures including the different production processes."

"We test the interaction between the product and the packaging materials. External factors such as wrapping, pallets, the filling machine, the product quality, the production and processing at our customer sites can influence taste. The storage and transportation of a product must also be considered, plus how operators could impact on a product's quality. We call this – the human factor."

Liv Bente explains the different product characteristics: "All of these factors, either just one or a combination, could give an unwanted off taste. Taking all the variables into consideration, we have to find the right packaging solution. It's a bit like being a detective."

THE SENSORY LAB

Requests from internal customers and our market units from all over the world come direct to Liv Bente at the Elopak Sensory Lab.

"The requests can be very different. From testing a new category of board or closure, a coating change, a new polymer, printing ink, periodically quality check or trouble shooting. Samples of the materials in question are collected and sent here. They are prepared for testing and then served to the sensory assessors to rate the taste. Each trial is replicated to ensure reliable data.

Testing at the lab is under strictly controlled conditions and is designed according to ISO guidelines.

"It is important that the test environment ensures non-biased, professional assessments that give reliable results. All the sensory assessors are qualified and trained.

The data is processed using a programmed statistical calculation, and then we analyse the results against acceptance levels.

"We have different levels of off taste acceptance for all board groups," explains Liv Bente. "There are many board categories and suppliers, and they all taste differently. We have established acceptance levels that they have to adhere to. If results are below that level, then we know it will not have an off taste in the filled product."

WATER SHOULD TASTE LIKE WATER AND NOTHING ELSE

"Water is the most sensitive product we fill in terms of off-taste. Flavour can be transferred from the packaging material, filling equipment and external factors," adds Liv Bente. "Because water is sensitive to off taste, it is used for testing packaging materials.

All packaging materials are first tested with water which creates a baseline knowledge on the different materials and product. Phase two testing takes place on other products such as milk and juice.

"Most people think water is easy – it is not!" says Liv Bente. "Water is our most challenging product. It is full of minerals and every country and often every region has its own source, making it unique. Our job is to protect the water's own natural and pure taste.

"If we can handle the long-term storage of water, we can handle any product. And we know how to handle water."



A CENTRE FOR KNOWLEDGE

The ETC includes a number of other lab facilities as well as filling machine development and testing.

“We are all together and work closely across global projects. Sensory analysis is more actively used today in cooperation projects, trouble shooting and as a proactive process. Together we are continuously challenged by our customers, our suppliers and regulations.

“We need to ensure that every product is well protected and fulfils the customer’s expectation during its shelf-life. Whether it is fresh, ESL-milk or UHT milk, fresh juice or water. Through research and testing we can help guide new product development to determine what consumers prefer.

“Our goal is to constantly develop a more environmentally friendly carton, while at the same time consistently delivering the natural good taste of the filled product.

“After all, water should taste like water and nothing else.”



About Liv Bente Strandos

Liv Bente started at Elopak in 1990 – as a laboratory technician in the Food Science Department which she is still part of today. In 1995, Elopak looked to strengthen focus on sensory analysis of packaging materials and filled products. This was due to a demand from customers and a changing marketplace.

From here, the sensory lab was set up and Liv Bente embarked on a journey as a Sensory Analyst, studying Applied Sensory and Consumer Science with UC Davis, University of California. Liv Bente is leader of the Norwegian Sensory Study Group. In 2015 the group published a book; Sensory Measurement using the Human Senses of which Liv Bente is co-author.

Easy to open

Hofer has introduced its most sustainable packaging yet.

Hofer has chosen a beverage carton that is made from 100% renewable material. The retailer has specifically selected a carton without a screw cap – opting for a carton with the traditional "easy-open" spout.

On a daily basis, the leading Austrian retailer freshly collects its best organic hay milk from its mountain farmers. The milk is pasteurised and nothing else, avoiding further processing. This way, the milk keeps its natural fat content giving it an original taste – as Hofer calls it – ‘Milk as it used to be!’

The dairy farmers use traditional and gentle hay farming, with controlled animal welfare. Cows graze on the mountains for 120 days a year, and are fed on soy and silage free local organic feed during winter months.

It is natural milk, the best organic hay milk in its most natural form, and for this Hofer has selected its most sustainable carton yet.

“The original milk is filled in a climate-neutral and resource saving packaging. Without plastic closure!”



Cartons are designed with a QR code which sends consumers to an animation video that shows how easy it is to open the carton without a screw cap.



A natural fit

Located in Mayrhofen, in the heart of the Tyrol mountains, Erlebnis Sennerei Zillertal (ESZ) introduced its premium seasonal Almmilch in carbon neutral cartons in Summer 2019.

“Almmilch is produced by our 350 local mountain farmers whose hay milk cows graze on the alpine pastures in the Zillertal mountains from June until September, creating the highest quality Alpine milk,” explains Christian Kröll from the Austrian dairy Erlebnis Sennerei Zillertal. “The carton is a natural fit of our most natural product, and the option of selecting a carbon neutral carton from Elopak enables us to offer our most sustainable package yet.”

For a product that appreciates and protects nature, the carton made from renewable materials is clearly identifiable with a reduced ecological footprint.

Erlebnis Sennerei Zillertal is a 100% family owned dairy, now managed by the third generation of the Kröll family. It is the largest family owned dairy in the Tyrol region and processes a wide range of cow, sheep and goat hay milk. The dairy is a popular tourist attraction for Tyrol with daily family tours of the dairy and cheese making facilities, a show farm and a restaurant.

Organic UHT milk from Ammerland

With increasing interest from German consumers for quality products, Molkerei Ammerland is the first dairy in Germany to launch natural brown cartons for their organic UHT milk.

According to the Nielsen Shopper trend study 2019 consumers in Germany are no longer interested only in the cheapest price: the “performance” factor is becoming more important. As a result, awareness of the origin and ingredients of products has increased. When buying food, the regionality and freshness of the products remain the most important factors. In addition, 52% said it was important to them to buy products with natural ingredients.

Products in 1,5% and 3,8% fat grade were introduced in November 2019, with processed milk coming from regional suppliers certified by the Bioland standard.

The organic milk is farmed within an 80 km radius of the Ammerland dairy where cows have plenty of space to roam and, whenever possible, are outside in the pasture. Cows are only given purely ecological feed, which comes mainly from their own farm, where the natural agriculture is without artificial pesticides or fertilizers. Therefore, for this ecological milk Ammerland sought a highly sustainable packaging solution.

Also plastics in the barrier and closure are based on renewable materials and have reduced Ammerland's CO₂ emissions by 20.8% compared to a standard UHT milk carton.

“We still see great potential, especially in the organic UHT milk segment. After the successful introduction of Ammerländer fresh organic and pasture milk, it is only logical for us to also launch the organic UHT milk in natural brown board cartons,” says Swantje Harms, Head of Marketing at Ammerland.

“We still see great potential, especially in the organic UHT milk segment.”



Did you know?

These latest products enter an organic UHT market which is increasing due to the cooperation of retailers and ecological producer associations, and consumers rising interest for quality groceries. Though the organic segment share in German UHT milk is rather low (3%), it showed high growth rates with 22% yearly volume increase. (GfK, 2018)

Join us



Dairy Innovation Summit, Copenhagen

March 31st – April 1st

Europe's leading innovation platform for the Dairy sector.

Visit our Elopak team on stand no 16.

With the mounting pressures on dairy producers to raise their sustainability game, how can the role of packaging help the industry achieve their climate goals?

Elopak's Director Sustainability, Marianne Groven will speak at the Dairy Innovation Summit about how, at Elopak, we believe that the role of packaging is to leave your product unchanged and the world unharmed.

Join Marianne on 31st March, at 1pm to discuss how to work together as an industry to provide a more responsible supply chain and circular economy.

www.arena-international.com/dairy/agenda

Plastic Free World Conference & Expo, Cologne, Messe

Industry Solutions for a World FREE From Plastic Waste

June 16 – 17

Stand no. PF28

Speaker: Patrick Verheist, CMO

www.plasticfree-world.com

Elopak has joined forces with a pioneering initiative in Europe which aims to support farmers and enables consumers to design their own food products.

pioneering initiative



“Consumers can for the first time decide what is important to them about a product, and how much they are willing to pay”

Nicolas Barthelmé, Founder of the German initiative Du bist hier der Chef!

Du bist hier der Chef! (You are the boss here!) was launched in 2019 in Germany and features an online questionnaire for consumers to select product features such as origin, production process, compensation for farmers, quality and packaging.

The initiative then collaborates with manufacturers, packaging producers and retailers to bring the product to market under the Du bist hier der Chef! consumer brand.

The initiative originates from France, where the C’est qui le patron!? (Who is the boss?) was launched in 2016 and has since become the biggest-selling new food brand in French commercial history.

C’est qui le patron!? was created by entrepreneur Nicolas Chabane, who found that the pressure from big retailers to drive down prices was making French dairy farmers struggle to survive.

Now French consumers have designed more than 30 products for the initiative which supports more than 3,000 farming families to receive fair remuneration.

DU BIST HIER DER CHEF!

The initiative is now part of an international movement in Europe, with the German community now growing daily. Elotalk spoke to Nicolas Barthelmé, who founded the German initiative Du bist hier der Chef!

“The aim is to allow consumers to have a say in the production process of fair and responsibly produced food,” says Nicolas Barthelmé. “Consumers can for the first time decide what is important to them about a product, and how much they are willing to pay. This results in fair compensation for farmers and more transparency for consumers.”

“We have started with milk products and asked Elopak to be a partner and help us create the specific questions about packaging choices”, continues Nicolas Barthelmé. “We started in Germany in June 2019 and founded a consumer community that is growing daily!”

“Du bist hier der Chef! tackles core issues such as ethical production, animal welfare, food and packaging waste,” adds Michael Schumacher, Key Account Manager, Elopak Germany. “It is important for Elopak as a sustainable packaging company and a leader in gable top cartons to be involved in such initiatives.

Packaging by Nature™ is what we stand for

There is no secret to the success of Elopak's iconic Pure-Pak® carton. The globally trusted, preferred and sustainable package for liquid content of all kinds, used daily by millions in over 100 countries.

Over the last decade we have reduced our

greenhouse gas emissions by 70%, and as a Net Zero Carbon company offer CarbonNeutral® Pure-Pak® cartons. With our continued research and development into sustainable materials, today we offer cartons that are 100% renewable.

We wish to play our part in the global shift towards a low carbon circular economy. Our Pure-Pak® carton solution is a premium line packaging choice for those who will join us in the mission to replace plastic bottles with 100% renewable, low carbon cartons.

“Elopak’s ambition is to keep our customer’s products unchanged and the world unharmed,” Thomas Kormendi, CEO, Elopak. “Therefore, we will continue positioning the Pure-Pak® carton as a natural, sustainable and convenient alternative to plastic bottles, which is suitable for a wide range of liquid products.”

From its creation in 1915, the Pure-Pak® gable top carton was a safe and convenient alternative to glass bottles, driving complexity out of supply chains. Today the world has new challenges: saving the planet from pollution, global warming, plastic waste and food waste.

Along with our industry, customers, suppliers and

partners, our responsibility and challenge is to reduce the carbon emission footprint of packaging, such as plastic bottles, replacing them with the long-time proven Pure-Pak® carton solution.

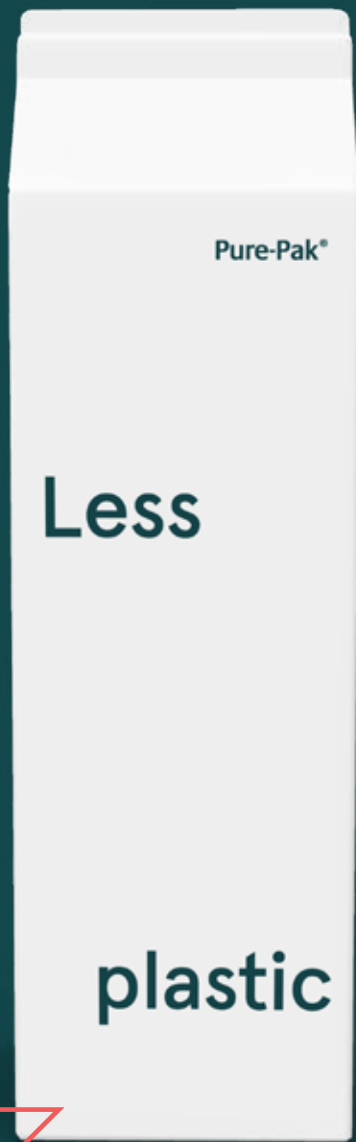
Our low carbon and circular economy approach aims to support customers in reducing their packaging carbon footprint and reaching sustainability goals and continues the ongoing fight against food waste.

Elopak has an ongoing commitment recognized by the Science Based Targets Initiative, contributing to keeping global warming to 1.5°C.

Over the last decade we have reduced our greenhouse gas emissions by 70%, and as a Net Zero Carbon company offer CarbonNeutral® Pure-Pak® cartons. With our continued research and development into sustainable materials, today we offer cartons that are 100% renewable.

The best packaging choice

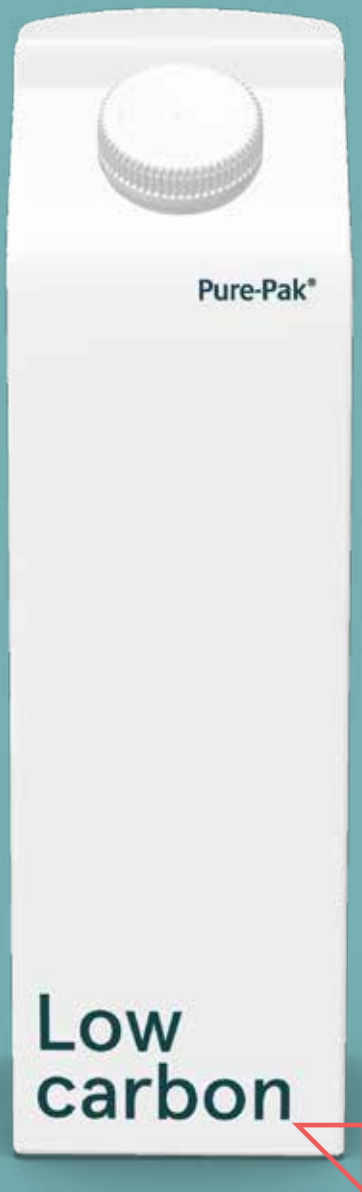
Pure-Pak® cartons are the best performing packaging choice, supporting our customers to realize the necessary carbon footprint reduction, keeping global warming to 1.5°C and satisfy today’s engaged consumers.



Pure-Pak® cartons use less plastic than alternative packaging. We are also continuously reducing plastic content and offer fossil-free options based on plant or forest-based plastics.

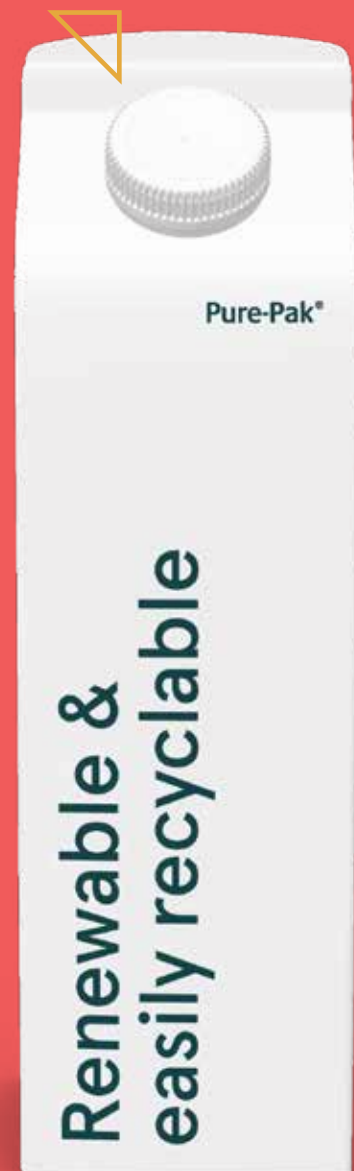
Pure-Pak® cartons are made with wood fibres originating from certified, sustainable forestry according to the most stringent and credible standards available. We create cartons from renewable materials that grow back. With our forest-based plastics option, you can have a 100% renewable carton, entirely based on wood.





Life Cycle Analysis shows that cartons have significantly lower carbon footprint compared to plastic bottles. We are proud to go the extra mile with CarbonNeutral® Pure-Pak® cartons.

The Pure-Pak® carton is fully recyclable and has a natural fit with circular economy. Cartons are made from renewable sources, that grow back, and are truly sustainable and recyclable materials.



A2 LAATTE first in Italy



The first ever A2 milk is launched in Italy by Centrale del Latte di Torino

Piedmont Tapporosso LAATTE was introduced in late September and is the first fresh milk on the Italian market with A2 Beta-Casein Protein - which is easier to digest than standard milk.

Centrale del Latte di Torino invested in a new project including a research study in Piedmont which found that today's milk contains a mixture of two protein types. It was possible for the dairy to select herds which produce 100% A2 milk naturally.

"Torino is bringing back original milk, which is more easily digested and completely natural, as the carton says 'The good milk of the past', explains Jacopo La Rosa, Elopak's sales manager in Italy. "Only A2 milk has two A's for LAATTE, and as people's inability to digest A1 protein is on the rise, Piedmont Tapporosso milk brings a welcome new sector for consumers.

-the good milk of the past in the carton of the future

“And for this they needed a standout package to shout the functional benefits of the natural and original milk. With its natural look and lower carbon footprint this carton was a great fit for the high-quality image of Piedmont Tapporosso LAATTE.”

The scientific research, conducted for the new product, stated: “The study allowed us to obtain a product with different casein profile (containing only Beta-Casein Protein of type A2) that could have benefits for consumers who struggle to digest dairy. It is a type of innovative milk with a protein profile for increased digestibility compared to conventional milk, and we hope that all those who currently don't consume milk for health reasons can return to the pleasure of tasting and benefitting from this important food.”

Centrale del Latte di Torino has worked in partnership with Elopak since 1978, and has a mission to produce and market high quality products for its consumers in Piedmont.

About Hay Milk

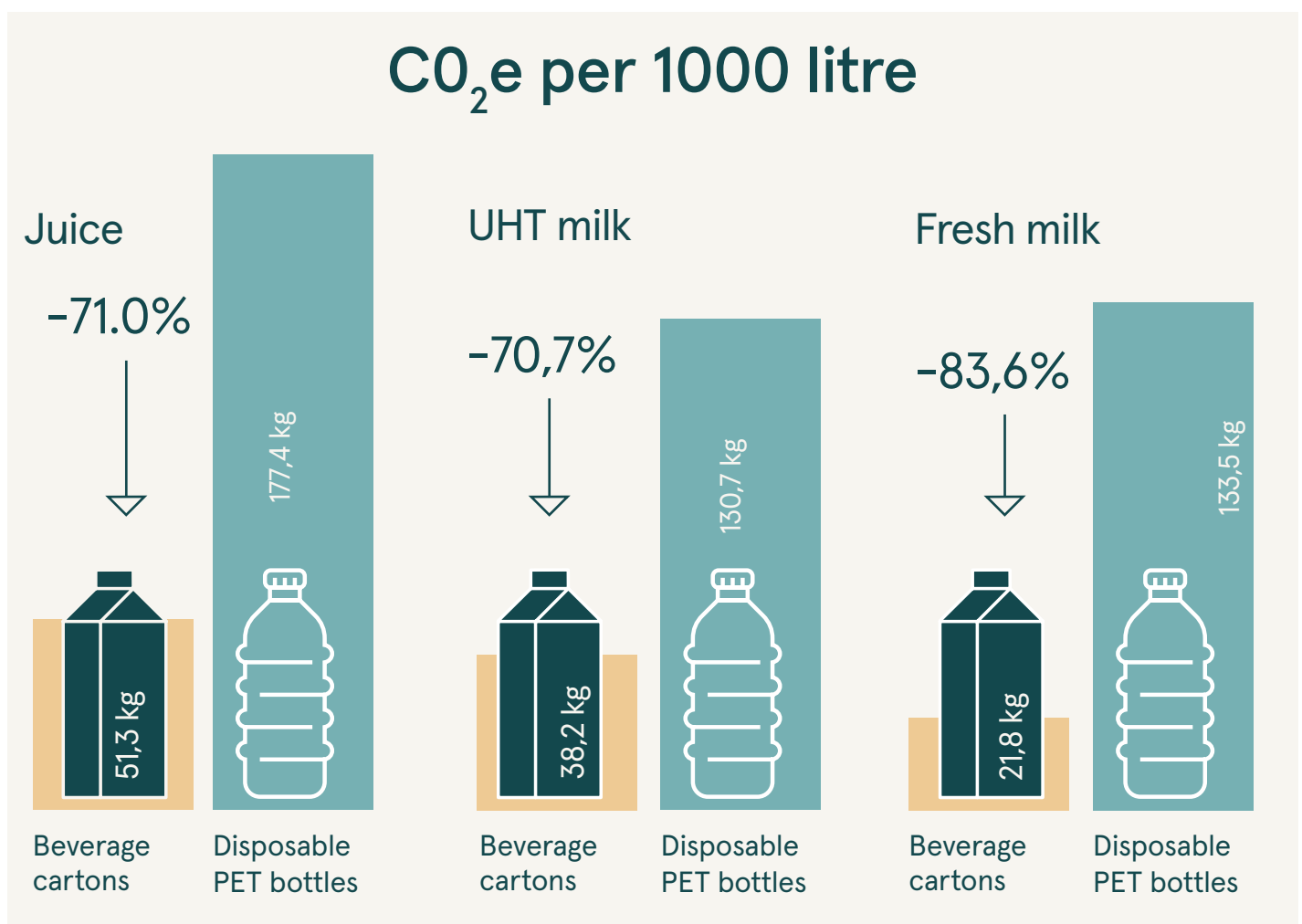
Hay milk is produced using the most traditional and natural methods based around the seasons.

In summer cows graze in meadows or mountain pastures on grass and herbs, benefitting from clean water and fresh air. At the same time the meadows are mown, and the grass is sun-dried and stored in barns and then used as feed during winter. With no silage used as feed, the resulting milk from hay farming has a pure, full taste and has more nutrition including a high content of omega-3 and 6 fatty acids.

Hay milk farmers are historically based in the Alpine regions, in Austria, Switzerland and France, with growing numbers across Europe. Hay milk production has been recognised by the European Union with the quality seal Traditional Speciality Guaranteed (TSG).

Carton's benefits versus alternative packaging

A recent Life Cycle Assessment (LCA) carried by the Institute for Energy and Environmental Research Heidelberg (IFEU) proves once again that the carton is an ecologically advantageous package compared to PET disposable bottles and reusable glass bottles.



**Carton is versus PET,
rated best in all
impact categories
in milk/juice.**

Juice cartons achieved

71%

lower GHG emissions than
the disposable PET bottle

UHT milk cartons achieved

70%

lower GHG emissions than
the disposable PET bottle.

Fresh milk cartons have

83%

lower carbon footprint than
PET bottles

The study was completed in 2018, commissioned by the FKN (Fachverband Getränkeverpackungen für flüssige Nahrungsmittel e.V.), the association for carton beverage manufacturers in Germany. Across the key segments of aseptic fruit juices/nectars, fresh milk and UHT milk, the LCA compared 1 litre beverage cartons with commercially available disposable and reusable systems in the German market including glass and PET packaging.

The study is a pilot as the first LCA study to be prepared according to the new methodological requirements of the German Federal Environmental Agency (UBA).

The entire life cycle of all market-relevant packaging was considered: from the extraction of raw materials through packaging production and filling to recycling, including all transport processes. The scope of the study spans various environmental impact categories addressing both resources and emissions.

RESULTS –

CARTONS ARE ECOLOGICALLY ADVANTAGEOUS

Overall the results show the beverage carton to be ecologically advantageous and to receive the highest ratings in terms of climate change for milk compared to all competing reusable and disposable alternatives.

For the UHT and Fresh Milk sectors, the beverage carton has the most favourable LCA profile compared with PET disposable bottles and glass returnable bottles. According to the LCA, in terms of climate protection and based on greenhouse gas (GHG) emissions, fresh milk cartons have a 83% lower carbon footprint than PET bottles, and 77% lower than reusable glass bottles.

Overall, in the juice sector, the beverage carton showed equally comparable to reusable glass bottles and substantial advantages compared to the PET disposable bottle. The high bio-based content contributed to the positive life-cycle assessment. Even higher recycling rates for PET, the elimination of barrier layers and use of recycled content up to 75% did not lead to contrary findings.

RESULTS SPEAK FOR THEMSELVES

“The results speak for themselves, especially in comparison to plastic bottles, the carton shows significant advantages,” says Stephen Naumann, Executive Vice President, Elopak. “With this information we can offer decision makers in politics, industry, trade and environmentally conscious consumers fact-based and reliable information and purchase decision making aids.”

This latest study confirms the results of previous LCA studies and continues to show favourable results for beverage cartons on the German market. For more information contact Elopak.



Read more at
www.elopak.com

