



Sustainability Report 2019



The main purpose of packaging is
to protect food.
Our responsibility is really
to ensure food is packaged safely
and with minimal waste.

That is what we are here for.



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About Elopak



Pure-Pak®
Elopak
Roll Fed

15 bn
cartons*



THINK CLEARLY
ACT DYNAMICALLY
BEHAVE WITH INTEGRITY

Leaving your
product
unchanged
and the
world
unharmed



3000
employees*

Sales to
80+
markets



1 bn
EUR
revenue*



Owned by
FERD




Renewable
raw
materials



Recyclable



The Forest Stewardship Council™(FSC™). FSC™ C081801. Look for FSC certified products – the mark of responsible forestry. www.fsc.org

*inclusive joint ventures

Towards a more sustainable future

2019 was the year of many global challenges. We saw teenagers on strike for climate change. We saw the Amazon on fire. We saw hurricanes and flooding, and terrorist attacks. We saw politicians struggling to agree on how to tackle the global challenges ahead. Lately we have also seen how the whole world can rapidly change and adjust to forces greater than ourselves.

Although Elopak is not in a position to solve the global challenges, we are proud to lead the way towards a low-carbon circular economy. We can provide packaging that keeps food safe and reduces food waste, all the way to the consumer.

We recognize our part in the global struggle to preserve the planet for future generations. We offer an environmentally friendly package, sourced from sustainable raw materials, through sustainable value chains. We are even a net zero company, enabling us to offer carbon neutral Pure-Pak® cartons to our customers. And we raise the bar to further improve over the next years.

In 2019, Elopak strengthened the focus on sustainability, thoroughly embedding sustainability as part of our overall business strategy. A set of goals and strategic initiatives were anchored in the Board of Directors and several projects have been initiated in various business units. Elopak was one out of 87 companies, and the first packaging company, to lead the way towards a 1.5°C future at the UN Climate Action Summit.

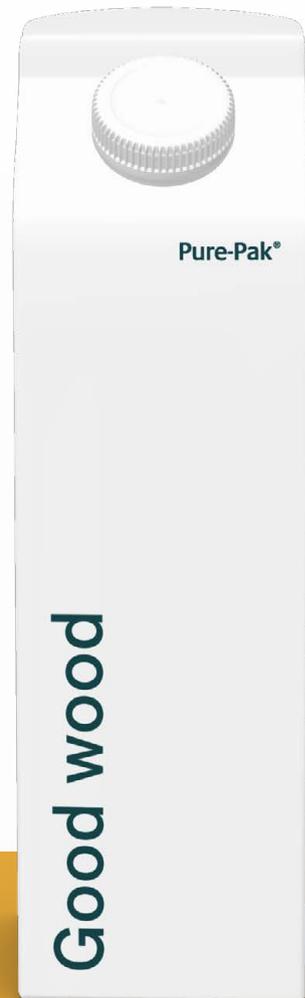
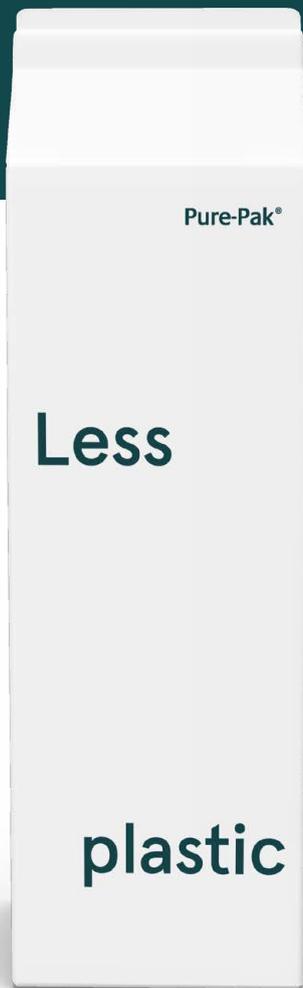
“Our ambition is to keep our customer’s product unchanged and the world unharmed.”



Thomas Körmendi,
CEO

Late 2019, the EU launched their green deal with an even increased focus on sustainability, which Elopak supports and welcomes. We aim to reduce our impact and rather leave a positive imprint on the world around us. And we invite our entire value chain to join us.

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



We do it for our future

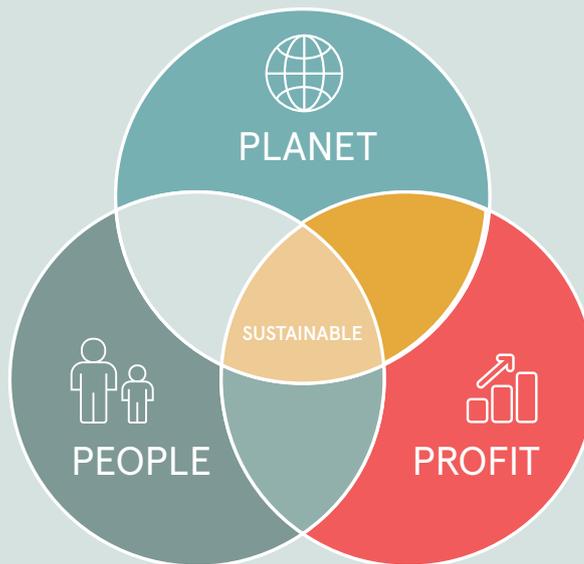
We are in the business of combating climate change and driving a more circular economy, and it is our obligation to leave behind a better earth for the next generation. Being sustainable is core to our organization and we ensure economic growth without exploiting the resources or the people of this planet.





Planet

Protecting the natural resources of our planet by sourcing renewable raw materials through sustainable supply chains, by continuously reducing and neutralizing greenhouse gas emissions, and by ensuring recycling of materials.



People

Taking care of people in terms of employment, health and safety, and ethical and social considerations, not only within the company but throughout the value chain.

Profit

Ensuring long term financial viability and contributing to the society by creating interesting and safe jobs and enabling the offering of safe and healthy foods.

Being a global corporation, Elopak is committed to always act in accordance with acceptable ethical standards, take responsibility for our actions and ensure that the company complies with local laws and regulations. We aim to maintain corporate governance principles that encourage a healthy and proper business management, safeguarding long-term success for our company as well as our value chain. Elopak's low-carbon and circular economy approach to packaging aims at supporting customers in reducing their packaging carbon footprint and reaching their sustainability goals. This is in addition to the ongoing fight against food waste.

It was natural to consider the environment as the main focus in our strategy launched in 2012, "Future Proofed Packaging 2020" (read more on page 61). This was further strengthened in 2019 when we set Science Based Targets to keep the global average temperature below 1,5 degrees.

However, looking beyond our strong environmental focus, we work as a unified sustainable company, across all business units. This report is Elopak's first sustainability report, and we have expanded the scope compared to previous years. This year we introduce our overall sustainability targets and data, and we aim to report according to sustainability reporting standards next year.

Sustainable goals

We work in accordance with the UN Sustainable Development Goals, the 17 goals with a total of 169 targets, also known as the "2030 agenda". The goals are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.



"To be sustainable in business is not only possible, it is highly necessary. Maintaining healthy growth without exploiting natural or human resources is essential."

 Marianne Groven,
Sustainability Director





Goal 8
Decent work and economic growth

We create work for many people in our business and supply chain. Historically, we have had a strong focus on labour and ethical practices in our company. We now further increase this focus throughout our supply chain, as well as building skills and employability of our employees.



Goal 12
Responsible consumption and production

We are dependent on renewable natural resources, and the way we source fibre is a great opportunity for Elopak to contribute to sustainable forests. We have targets for sourcing certified raw materials and improving recycling in all steps of our value chain.



Goal 13
Climate action

We take urgent action to combat climate change and its impact.

Elopak is fully aware of the responsibility we have in the global increase of greenhouse gas emissions. We work to reduce our emissions from our operations and supply chain. With ambitious Science Based Targets in place, we commit to further reduce our impact.



Goal 17
Partnerships for the goals

We cannot achieve the SDGs working alone, and we have been working with suppliers and customers to reduce emissions and use of raw materials. Strong international cooperation is needed now more than ever to ensure that countries have the means to recover from the pandemic, come back stronger and achieve the SDGs.

Working together on common ground

Progress on these priorities will be meaningless if done at the expense of others. Although focusing on the ones we can directly impact, we also strive for progress on some of the SDGs key to the production of our main raw materials (clean water, life on land and life below water). Through our focus, we will have positive impacts on remaining SDGs, such as zero hunger, where we enable food to be packaged and distributed safely.



Elopak's sustainability targets

<p>1</p> <p>Elopak offers a top-quartile motivating workplace by 2025</p>	<p>2</p> <p>85% of employees have individual targets and documented competence development plans</p>	<p>3</p> <p>Target the same distribution in gender diversity across all hierarchical levels</p>
<p>4</p> <p>Elopak delivers improved sustainability performance and reporting by 2022</p>	<p>5</p> <p>Key raw materials sourced through sustainable value chains by 2025</p>	<p>6</p> <p>Elopak makes no compromises on safety and aims for zero lost time injuries (LTIs)</p>
<p>7</p> <p>Evaluate key suppliers according to sustainability criteria by 2022</p>	<p>8</p> <p>100% recyclable beverage cartons in all markets by 2025</p>	<p>9</p> <p>70% of all beverage cartons are recycled in EU and Canada by 2025</p>
<p>10</p> <p>Active engagement in industry associations in our geographical markets</p>	<p>11</p> <p>100% renewable materials available in all beverage cartons by 2030</p>	<p>12</p> <p>100% of all fibers in beverage cartons originate from certified sustainable forestry according to the most stringent and credible standards available</p>
<p>13</p> <p>50% of all fresh milk cartons in Europe fully renewable by 2025</p>	<p>14</p> <p>16% reduction of value chain's emissions (scope 3) by 2030</p>	<p>15</p> <p>55% reduction of Elopak's direct emissions (scope 1) by 2030</p>

Our sustainability targets

Our sustainability targets are embedded into the overall company strategy and is hence not to be seen as a separate strategy. The sustainability program sets out three main categories under which there are multiple strategic initiatives to reach our targets.

The social impact

Being a sustainable company means that we take care of the people in our company, both from an ethical and a social perspective, in terms of health and safety, and by maintaining their knowledge base and facilitating their development and employability. We also conduct business in a responsible manner, ensuring the social, ethical and environmental aspects in our value chain.

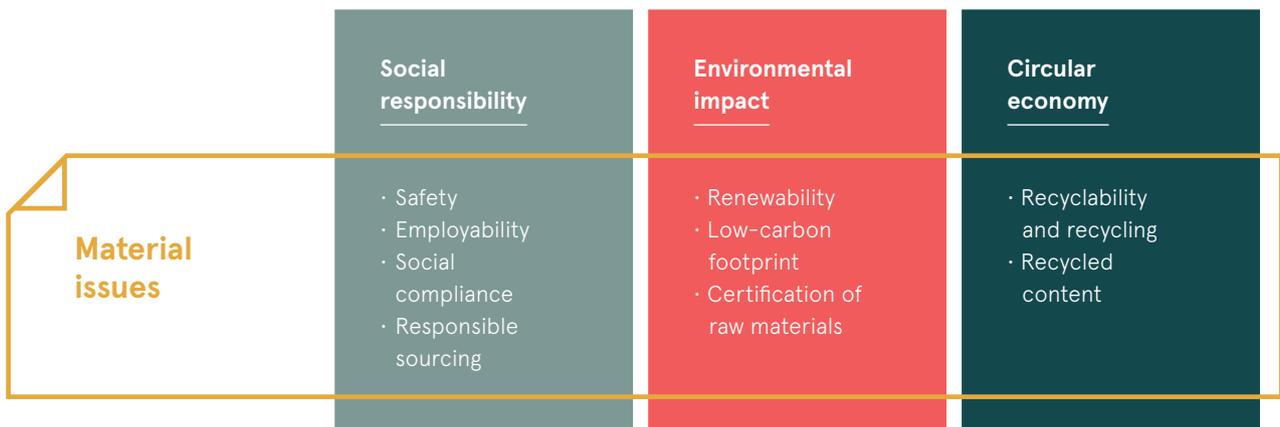
The environmental impact

We focus on renewability, low-carbon footprint and certification of raw materials. A renewable resource is a natural resource that can be regrown with the passage of time, such as trees and plants. When sourced responsibly, renewable resources are sustainable. Our main raw material is naturally renewable.

The circular economy

In order to minimize waste, optimize raw material use and keeping materials in use for as long as possible, we continuously work to increase recycling of our products after use. In addition, renewable materials are a key part of a low-carbon circular economy.

Material issues for Elopak



Our Approach

Being a global corporation, Elopak is committed to always act in accordance with acceptable ethical standards, take responsibility for our actions and ensure that the entire company complies with local laws and regulations. We aim to maintain corporate governance principles that encourage a healthy and proper business management, with the purpose of safeguarding our long-term success.

We work from a simple, yet comprehensive and effective set of values: We think clearly, act dynamically, and strive to always behave with integrity.

Elopak aims to preserve the world's resources in a healthy, safe and sustainable manner, through developing and offering ever better packaging solutions for liquid content. To uphold the highest ethical standards in all of our business operations we have our own Code of Conduct and Anti-Corruption Policy. This is a commitment to behaving with integrity towards employees, communities, customers, the environment and other business partners of Elopak.

The Elopak Anti-Corruption policy and The Code of Conduct stipulate rules and guidelines related

to equal opportunity, non-harassment, and observation of health and safety standards. This is an integral part of the employment contract with Elopak for employees and contractors. Once a year all employees receive an invitation to do PureEthics; our Code of Conduct and Anti-Corruption Policy e-learning program, in order to continuously focus on ethical behavior and compliance. Possible breaches are to be reported in the line management or through the external whistleblower channel with KPMG, Norway. The service provided by KPMG ensures that our employees and external stakeholders can report their concerns confidentially and anonymously with no ability to trace back to the notifier.

In order to comply with the new Global Data Protection Regulations, we have appointed a Global Data Protection Officer and Local Data Protection Coordinators.

Elopak has developed a Global Supplier Code of Conduct (SCoC), to illustrate and clarify what we expect from our suppliers and partners in the areas of business ethics, human rights, labor practices, health and safety and the environment. The SCoC is based on the ten principles of the UN Global Compact, the UN Declaration of Human Rights and



“We always strive to think clearly, act dynamically, and behave with integrity.”

 **Jannicke G Woxmyhr**
Specialist Director Group HR/Interim CHRO



International Labor Organization conventions. We are also part of a commitment across the industry to secure that all wood fibres are sourced from legal and acceptable sources. We source 100% of fibres in accordance with the standards of the Forest Stewardship Council™ (FSC™).

Stakeholder engagement

Our customers, colleagues and the many organizations we partner with all want to see rapid action on a wide range of social and environmental issues, and their rising expectations create great opportunities for Elopak to deliver and grow. Our stakeholder dialogue is based on respect for individuals, society and the environment. We keep a close dialogue with them to understand their priorities, as well as the role we play in society.

In the process of developing our sustainability program, we connected with World Wide Fund for Nature (WWF) Norway as a key NGO stakeholder providing useful input on our key material issues, raw material use, approach to the sustainable development goals and our sustainability targets.

Elopak also became a member of Ethical Trade Norway in 2019. This is further described on page 54. Through this membership Ethical Trade Norway also became a key NGO stakeholder in our sustainability program.

Elopak reports to the Carbon Disclosure Project (CDP) and as suppliers into the Sedex and EcoVadis platforms. The reporting helps us to understand and improve our sustainability performance. From 2018 to 2019, we have significantly improved our performance, both in terms of increasingly ambitious target setting and through improved governance structure.

Elopak's management of sustainability is defined in the following policies

- Code of Conduct
- Anti-Corruption Policy
- Global Supplier Code of Conduct
- Raw Material Sourcing Policy
- Safety Policy
- Overall Group Strategy including sustainability program

CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. In 2019, a total of 8 400 of the world's largest companies disclosed their climate performance to CDP, an increase of 20% from the previous year.

EcoVadis is a global Corporate Social Responsibility (CSR) rating company based on international standards. They combine CSR expertise and online tools and have become a common industry tool within this area. The supplier assessment is focused on specific risk areas including environment, labour and human rights, ethics and sustainable procurement practices.

Sedex is one of the world's leading ethical trade service providers, working to improve working conditions in global supply chains. They provide practical tools, services and a community network to help companies improve their responsible and sustainable business practices, and source responsibly.

Sustainable carton makers

Being a socially responsible company means behaving in an ethical manner, and with integrity. This is a natural part of our sustainability focus and is increasingly important in Elopak.



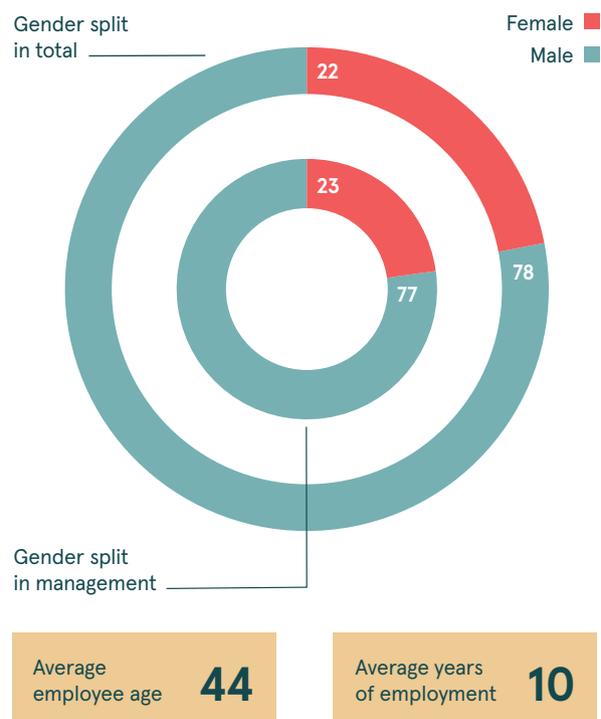
Growing up we were taught not to bully others, not to steal, to say thank you, and to have respect for the elders. This is, in essence, good manners and etiquette. Ethical behavior remains important also in our working life.

A socially responsible company takes care of its employees. Safety, employee motivation and development are important internal focus areas in Elopak.

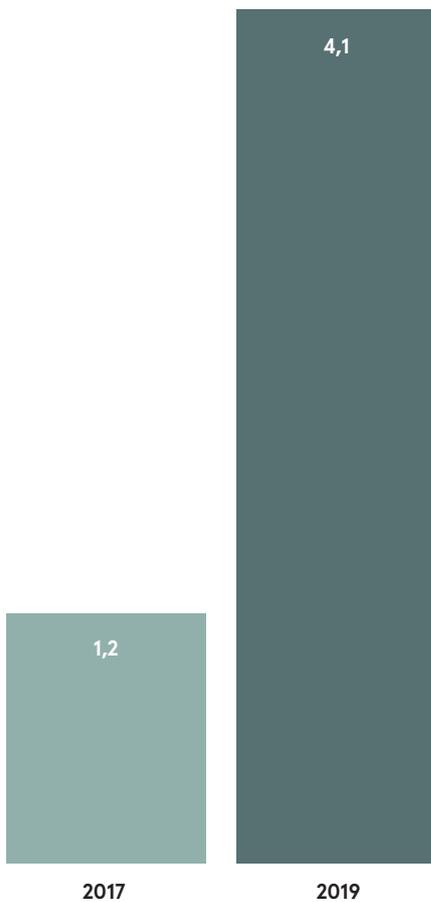
Employment

People in Elopak promote a culture of openness, respect and tolerance. We encourage our people to share knowledge and ask questions. The aim is to lead every employee to their goals, and we utilize the diversity of a workforce with many different backgrounds, expertise, cultures and experiences. Employees in Europe are organized in the European Works Council in addition to local Works Councils and are involved in any major management decision in Elopak.

Our employees (percent)



Elopak LTI rate*



* LTI Rate refers to Lost Time Injury frequency Rate, the number of lost time injuries occurring in a workplace per 1 million hours worked. Lost Time Injuries are on-the-job injuries that require a person to stay away from work more than 24 hours, or which result in death or permanent disability.

Health & Safety

Elopak’s continued effort to improve safety in operations has not shown the expected results. Underlying factors include better and more consistent reporting in all business areas.

The focus on improving safety continues and all managers in the operational organization are measured and remunerated according to safety performance. Common focus areas are:

- Systematic assessments of risks in operational tasks
- Further development of procedures for how to handle running machineries, and to physically lock machineries for unintentional startup during maintenance
- Strengthen the interface between leaders and operator / Field Service Engineer to build a better safety culture
- Make safety visible by signs, markings and articles, and consequent reactions on lack of adherence to safety procedures
- Perform safety audits against the internal safety standard and local safety plans
- Raised attention to top management for each LTI case including root cause and corrective measures

In addition to the above, local safety plans are designed to fit local needs, with the ambition to reduce the incident rates towards zero.



“Situational Leadership is a great tool. It helps me as a leader to maintain focus on the goal and motivate my team to improve our performance culture across the entire organization.”

 Anne Marie Vosskötter,
Specialist Director Supply Chain



Training & Education

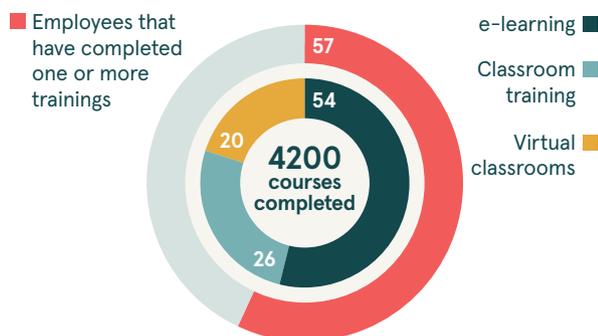
We need to have the right competencies in the right place to meet innovation and customer needs. We rely on dedicated and highly motivated people, and we are committed to enhancing our performance culture based on targets, priorities and dialogue.

Our competence & development platform EloPeople provides our leaders with a platform to follow up our employees in an efficient and structured way, ensuring focus on key priorities. The platform also gives us important possibilities to follow up and track training, ensuring compliance with the Code of Conduct and with hygiene and safety requirements.

1040 employees completed our e-learning PureEthics during 2019, which gives a total of 2900 completions the past 3 years.

Elopak has conducted online nanolearning for all employees in order to comply with the GDPR regulations.

Courses and training (percent)*



* Not including local training not yet implemented in the EloPeople platform

Creating a common language - Situational Leadership

We are training our leaders in setting targets, giving feedback and leading people to success through the Situational Leadership program. 65% of our managers completed one or more modules of the program in 2019. 43% of our managers have also completed training sessions on how to utilize our performance and development platform. We will continue this training throughout 2020.

Leaders in Elopak are committed to enhance our performance culture and to lead people to success. We want to build a common language of leadership and provide tools for both leaders and employees. The training started in 2018 and will continue to all our sites.

Situational Leadership consists of three elements:

1. Goal setting: The process of setting SMART goals; goals that are Specific, Motivating, Attainable, Relevant and Trackable.
2. Diagnosing: The process of developing a mutual understanding between leader and employee about what you need to perform.
3. Matching: Applying the leadership style that matches the need of the employee to perform a specific task or achieve a specific goal. Employees can ask their manager to give them further direction or support.



Summer schools

Elopak has conducted several summer schools for children, in Norway and Denmark. The aim is to arouse interest and teach children about global issues such as climate change, wildlife conservation and threats to the ocean by doing exciting activities and experiments.



Ukraine

In Ukraine the plant in Fastiv invited local children to excursions and they even hosted a Children's day in June. At this event the young delegates discussed future profession and work opportunities, alongside exciting and fun activities.

A wider impact

Elopak aims to contribute to increased knowledge, understanding and interest for science and technology among children. We have activities in several countries and the initiatives comes from the employees themselves.

In the future, we aim to expand this to more countries, as we find it important to educate children in terms of sustainability in order to help them make sound decisions in the future.

“Judging from the children’s enthusiasm by performing various experiments, making new friends and combining fun and learning in general, we can conclude that this initiative is a huge success.”

 Søren Q. Væggemose,
HR Business Partner at Elopak Denmark A/S



Conserving our natural resources

Since the Industrial Revolution, humans have been exploiting the natural resources of the planet at the expense of nature, biodiversity and climate. This has to stop. Through several initiatives, Elopak strives to conserve the earth's natural resources. Renewability, certified and responsibly sourced raw materials, renewable energy, reduced greenhouse gas emissions, consumption reduction and recycling – all through innovation, is the key objective of Elopak's approach – Packaging by Nature™.





Our material is naturally renewable

Elopak's fresh cartons consist on average of 85% paperboard, originating from forests from the northern hemisphere. Forests are naturally renewable since trees grow relatively quickly without human interference. However, forests are only renewable if they are managed responsibly.

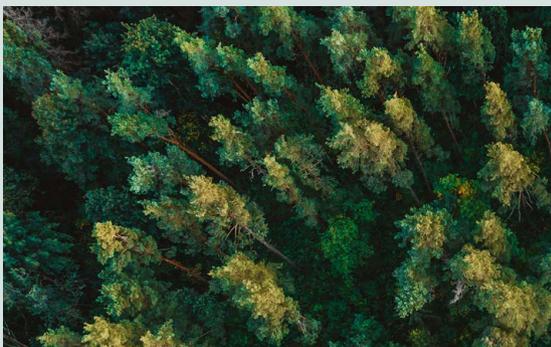
As our main raw material is derived from forests, we take responsible forest management seriously. We source all paperboard from legal and acceptable sources in accordance with the standards of the Forest Stewardship Council (FSC). Verification through the supply chain in accordance with the FSC Chain of Custody standards ensures that the final, labeled product is made from material sourced from FSC-certified forests and other controlled sources.

The importance of forests – The lungs of the earth

Trees play an important role in the carbon cycle. During their growth, trees absorb carbon dioxide (CO₂) from the atmosphere and produce oxygen. The carbon cycle describes the process in which carbon atoms continually travel from the atmosphere to the earth, and then back into the atmosphere.

Forests are also crucial for biodiversity. Several species have been extinct over the past decades, and maintaining healthy, wild forests are key to preserve the endangered species.

For centuries, trees have been used for important products such as firewood, construction material and paper. Between 1990 and 2015, the world lost 129 million hectares of forest. The destruction and degradation of forests worldwide leads to an increase of the atmospheric CO₂ concentration and is devastating to the climate and the planet.



Renewability

Renewability means being able to renew itself in a natural environment over a relatively short time. A forest is renewable as long as the forest is managed sustainably. Using renewable materials is important for several reasons. First of all, we cannot continue to rely on finite and fossil resources. These resources are limited, and will not be replenished. Secondly, renewable resources generally have a significantly lower carbon footprint than fossil resources.



During this time, however, Nordic countries have maintained an annual net growth of forest land, meaning that the amount of wood harvested is less than the forest growth each year. This helps contribute to absorbing the increasing global greenhouse gas (GHG) emissions and to maintain biodiversity. For Elopak, it is important to participate in the fight against illegal logging and to ensure that all forestry behind our cartons is not only legal, but also responsible. This is how we ensure that our main raw material is truly renewable, and will be available for future generations.

Sales of FSC-certified cartons have steadily increased annually since Elopak secured certification in 2010. In 2019, 100% of Elopak’s sales volume came from verified and controlled sources, of which 47% was FSC-certified (68% of the sales volume in Europe). FSC labelled cartons are certified through all steps in the value chain; from forest yield, to paperboard production, to manufacturing of the final product.



“The world is at the beginning of a bio-based economy, where fossil raw materials will gradually be replaced with renewable ones. Elopak is proud to be at the forefront of this transition.”

 Elisa Gasperini,
Specialist Manager Sustainability

Forest Stewardship Council

The Forest Stewardship Council (FSC) is an independent, non-profit organization devoted to encouraging the responsible management of the world’s forests. FSC sets high standards that ensure forestry is practiced in an environmentally responsible, socially beneficial and economically viable way.

By “legal and acceptable”, or “controlled sources”, we mean wood fiber that is verified NOT to come from:

- Wood harvested in violation of traditional and/or civil rights
- Wood harvested in threatened high conservation value forests
- Wood harvested in forests being converted to plantations or for non-forest use
- Wood from forests in which genetically modified trees are planted
- Illegally harvested wood



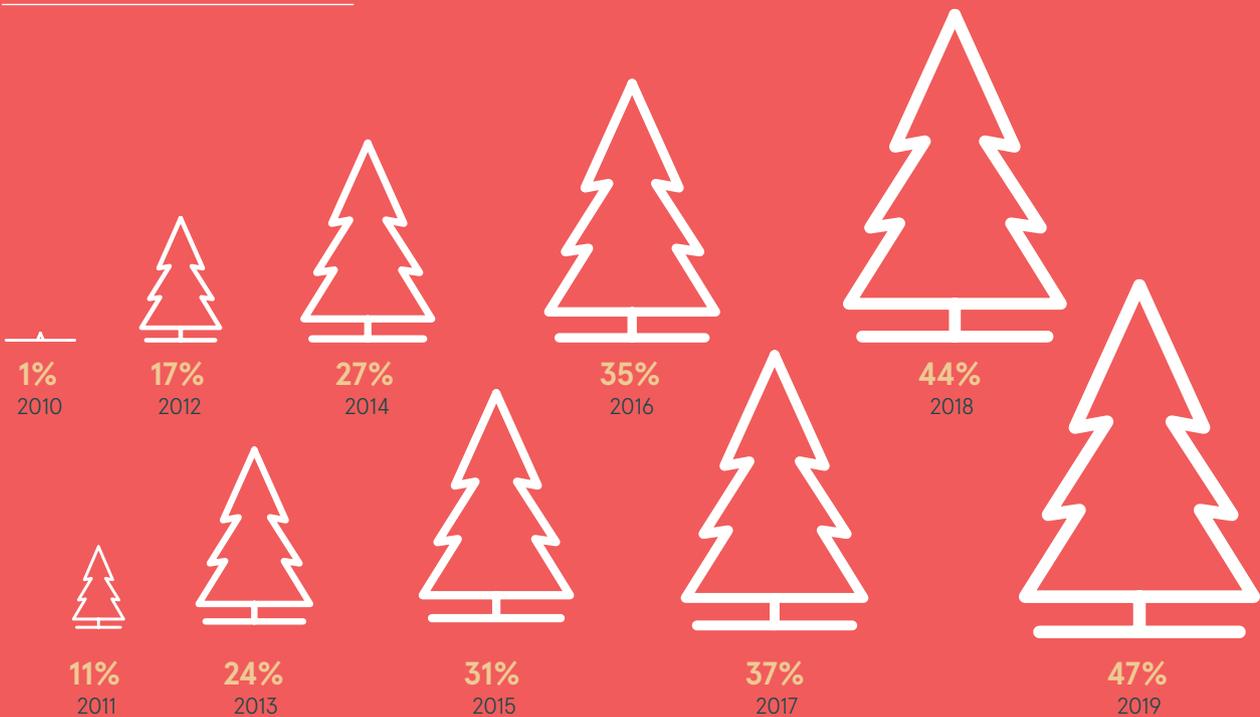
The mark of responsible forestry



“For Elopak, transparency and credible proof of sustainability is key. This is why we ensure that all our renewable materials, paperboard as well as plastics, are sourced and verified through certification systems.”

 Jeanette Berge Knutsen,
Sustainability Specialist

Elopak is committed to maintain living and viable forests. 100% of our cartons are verified from controlled sources, with a continuous increase in sales of FSC-certified cartons.





Renewable plastics

Pure-Pak® cartons keep products fresh using less plastic than alternative packs. We are constantly reducing the plastic content, and you can also go ‘fossil-free’ with forest-based plastics. Plastic is traditionally made from fossil raw materials. By extracting these from the ground, greenhouse gases are introduced to the atmosphere and are harming the environment.

In 2014, Elopak launched the first cartons based on 100% renewable raw materials. It has proven to be a success with product launches from several large brand-owners. In Elopak, we offer certified renewable plastics based on tall oil, a residue from paper production. Sourced from Nordic forests, the tall oil-based feedstock allows Elopak to offer a carton based entirely on wood. The wood is 100% sourced from responsibly managed forests and other controlled sources, in accordance with the FSC certification system.

All of Elopak’s cartons in Europe can be offered with renewable plastic, significantly lowering the carbon footprint of the cartons and helping

customers achieve their environmental goals. All our renewable PE cartons are certified according to ISCC PLUS, from feedstock to finished carton.

There are several benefits in using renewable plastic:

- Lower greenhouse gas (GHG) emissions
- Less extraction and use of fossil fuels
- Use of renewable raw materials helps ensure resources for future generations

The development of plastics made from renewable raw materials is moving fast and new solutions are introduced at a high pace. Elopak is following this development and is engaging in research projects where new raw materials are investigated for development of new packaging materials.

GHG emissions that have been avoided since 2014 due to the use of renewable plastics in cartons and closures



Feedstock

The term feedstock can refer to a raw material or an intermediate product used to produce a finished product.

ISCC

ISCC stands for “International Sustainability and Carbon Certification” and is a world-wide applicable and acknowledged certification system for any kind of bio-based feedstocks and renewables. ISCC PLUS is specific for food and feed products as well as for technical/chemical applications (e.g. bioplastics) and applications in the bioenergy sector (e.g. solid biomass).





The most sustainable carton

Pure-Pak® Imagine is our most environmentally friendly carton so far. This new carton is a modern version of the original Pure-Pak® carton, designed with an easy open feature. With the new shape of the Pure-Pak Imagine top fin, we have added a further important point of differentiation which consumers will recognize. Shape is the first recognition point for consumers, so this is especially important in markets less familiar with the easy opening feature.



Reducing raw material use

There has been a tremendous development in raw material efficiency since the introduction of beverage cartons made from liquid paperboard. Our board suppliers have increased their productivity by increasing the yield of paper from wood. In addition, Elopak has significantly reduced the amount of raw materials used in each carton. While maintaining the quality of our cartons, the paperboard weight has been reduced by more than 20% over the last decades.

Increasing sales of natural brown board

Our natural brown board sets a new standard and has a lower carbon footprint than the regular board. The sales volume is up 130% from 2018 to 2019. 17% of our standard milk carton volume in West-Europe is natural brown board.

Sustainable and safe food packaging

Although we aim to reduce raw material use, we need to keep in mind that the role of packaging is to protect the food inside.

Elopak food packaging solutions make a significant contribution to the overall global sustainability agenda. All foods are susceptible to attack by microorganisms, which limit product shelf life and can negatively influence human health. The Elopak solutions ensure that food is processed correctly and packaged in hygienic conditions to secure that consumers receive food that is both safe and nutritious in the fresh, extended shelf life and aseptic segments.

Other contributions to the global sustainability agenda come from sustainable sourcing as well as carbon footprint reduction of the package and its manufacturing process.

One of the key elements of circular economy thinking is 'designing-out waste' right at the beginning of the product inception phase. The Pure- Pak® Sense carton is a good example. By having 'easy-to-fold' lines which make it easier to squeeze out more of the product remnants, we can reduce food waste. In addition, the folded cartons reduce waste volume.

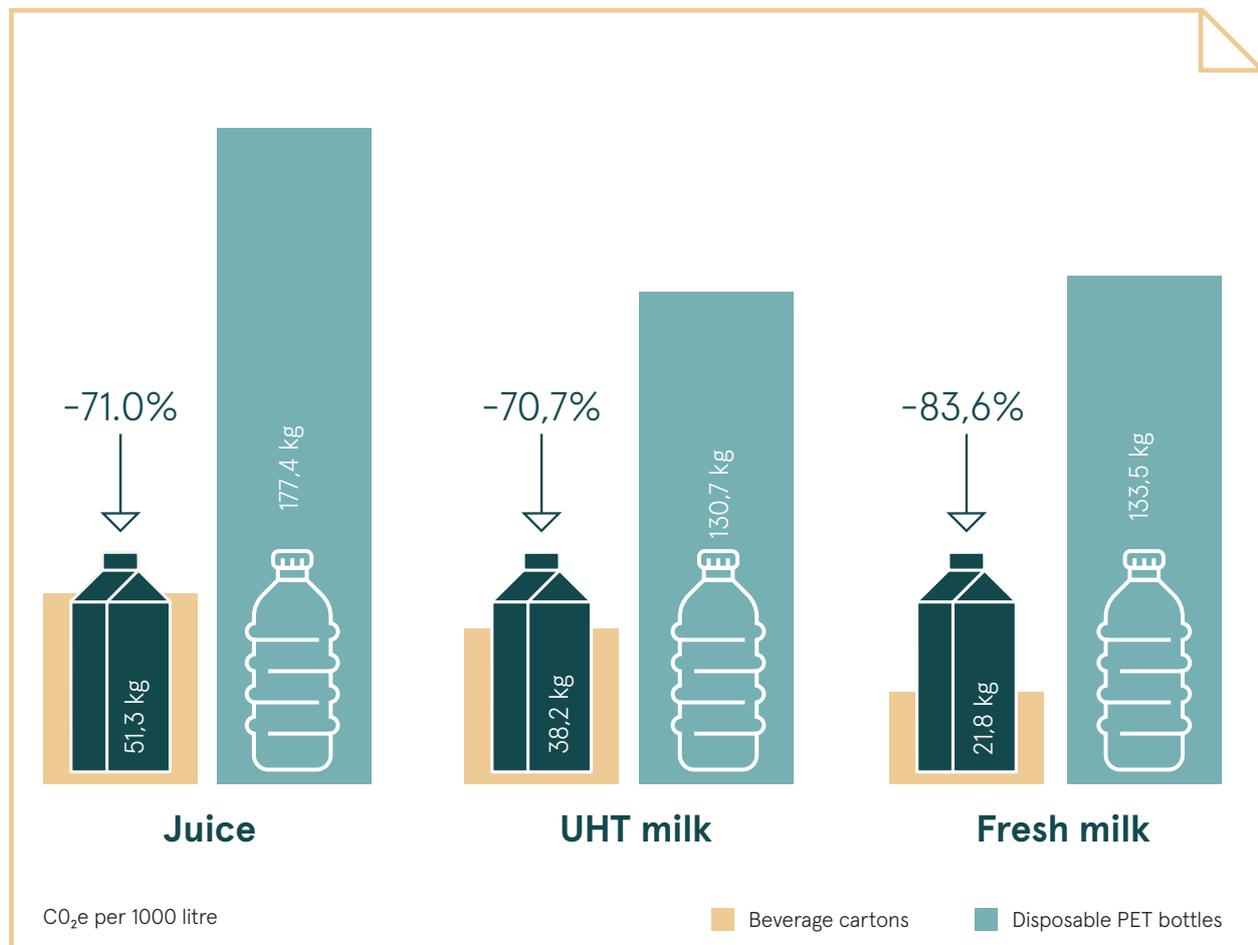


“The Elopak solutions ensure that food is processed correctly and packaged in hygienic conditions to secure that consumers receive food that is both safe and nutritious in the fresh, extended shelf life and aseptic segments.”

 **Dr. Keith Johnstone**
Director Safety and Quality

Beverage cartons outperform PET and glass bottles

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 disposable PET bottles and reusable glass bottles.





71%

Juice cartons emit 71 % less GHG emissions than disposable PET bottles

50%

Juice cartons have 50% lower carbon footprint than disposable PET bottles with 75% recycled content

70%

UHT milk cartons emit 70% less GHG emissions than disposable PET bottles

83%

Fresh milk cartons emit 83% less GHG emissions than disposable PET bottles

This study confirms the results of previous LCA studies and continues to show favourable results for beverage cartons as the most sustainable packaging format, mainly because of the use of renewable raw materials.

In both aseptic and fresh milk sectors, beverage cartons have a better LCA profile compared with disposable PET bottles and returnable glass bottles. In the juice sector, beverage cartons proved equally comparable to reusable glass bottles, and substantial advantages compared to disposable PET bottles. Even when comparing to recycled PET, bottles have significant higher carbon footprint than beverage cartons.

Considering that filling equipment has a lifetime of 15–20 years, current investments in packaging systems would last beyond 2030 and emission reduction targets. This makes beverage cartons an excellent choice for a low-carbon future.

“The results speak for themselves, especially in comparison to plastic bottles, the carton shows significant advantages.”

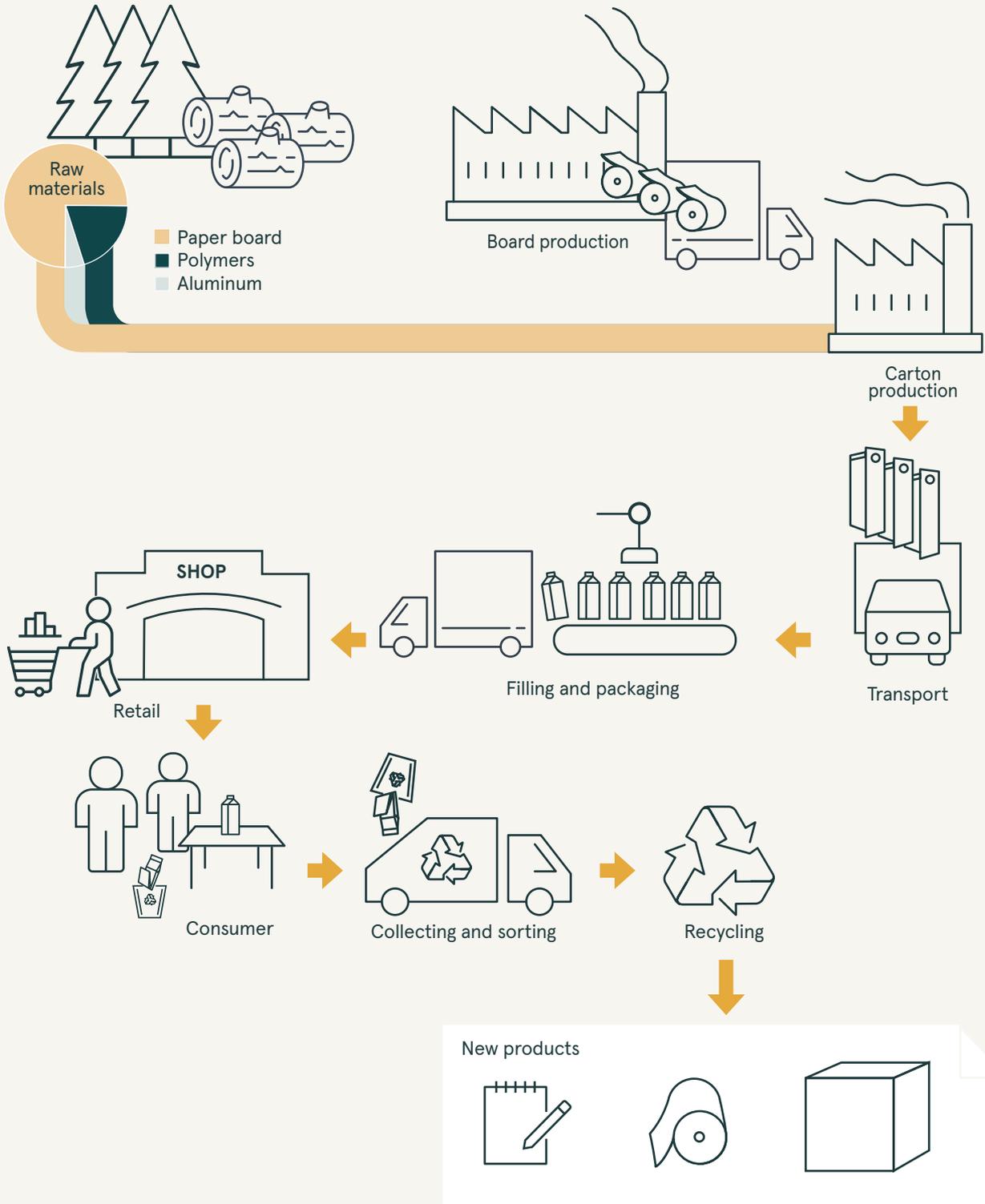
 **Stephen Naumann,**
Executive Vice President Region North & CIS, Elopak

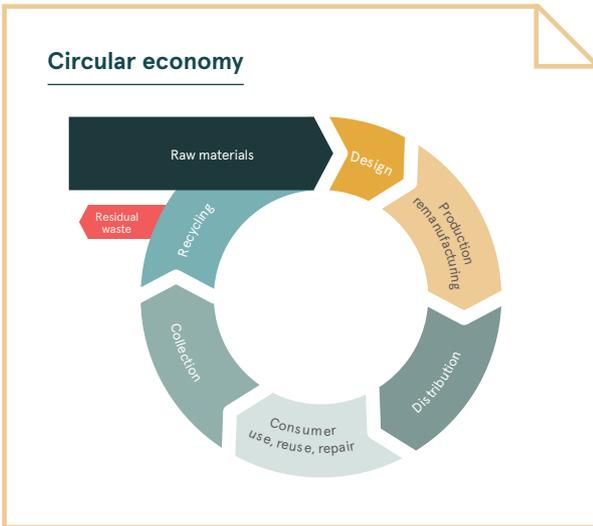


Background

The study was completed in 2018, commissioned by the FKN (Fachverband Getränkeverpackungen für flüssige Nahrungsmittel e.V.), the association for beverage carton 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 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 includes several environmental impact categories addressing both resource use and emissions.

Carton life cycle





Naturally circular

Our planet’s scarce resources are approaching physical and ecological limits. Therefore we contribute to a circular economy in two ways - by using renewable raw materials and by continuously aiming to keep materials in the loop as long as possible, thereby ensuring resource-efficiency and reducing waste.

Recycling lessens the need for virgin material and reduces waste. Elopak works closely with local authorities, industry peers and other stakeholders to boost collection, sorting and recycling of beverage cartons. Together we aim to reach up to 70% collection and recycling of beverage cartons in the EU and Canada by 2025.

How are beverage cartons recycled?

Paper fraction

Paper fibers from beverage cartons are highly desirable because they consist of strong virgin fibers, and can be recycled up to seven times. After collection and sorting, beverage cartons go to dedicated paper recycling mills. Here, water and agitation separate the paper fiber from the plastic and aluminum layers. The result is a paper fraction used to make new products, such as secondary packaging material.

PolyAl fraction

The polymers and aluminum fraction (known as PolyAl) can be reprocessed in a number of ways. The plastics and the aluminum can be reprocessed together. Similarly, there are new technologies emerging to derive maximum value from the PolyAl fractions. Several such new reprocessing facilities have been commissioned. Outputs from these processes include secondary raw materials and agglomerated materials for the manufacture of moulded products.

“The beverage carton industry continues to support recycling through promoting technological innovation in recycling solutions, stakeholder engagement and collaboration.”

 **Inge Eggermont**
Specialist Manager Sustainability





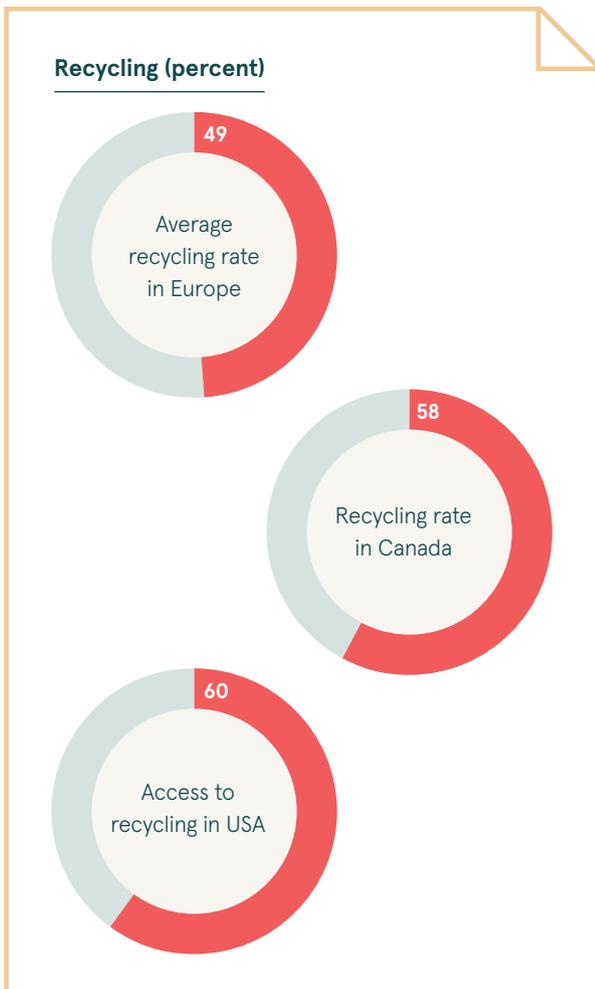
The recycling challenge

To what extent beverage cartons are recycled, depends on the local and national systems in place for collection, sorting and recycling of packaging. The challenge is to make national collection and recycling facilities more widely available and easily accessible, so more people can recycle our cartons.

Progress on recycling

The beverage carton recycling rate in Europe has been steadily increasing over the past two decades. In 2018, the carton recycling rate in Europe was 49%, up 1% on the previous year. The total recovery rate (recycling and energy recovery) reached 76% in 2018. Some European countries reach rates above 70%, while there is still room for increased recycling participation in other countries.

In Canada, the recycling rate was 58%, while in the US, over 60% of households have access to beverage carton recycling. Elopak is an active member of Carton Council North America, driving the collection, sorting and recycling of beverage cartons in the North American market.



Recycling the PolyAl from our cartons - PALUREC

More than three million tons of beverage cartons have been recycled in Germany until today. Palurec GmbH was founded as a wholly owned subsidiary of Fachverband Getränkekartons für flüssige Nahrungsmittel e.V. (FKN), which has invested in the construction of a recycling plant. 2019 saw the commissioning of the flagship plant, showcasing innovative industry cooperation to ensure all elements of the carton are indeed recycled.



Strengthening industry cooperation to increase recycling

In 2019 Elopak joined the 4evergreen alliance, a cross-industry alliance created with the sole goal of making fiber-based packaging 100% circular, minimizing climate impact.

The beverage carton industry also agreed in 2019 to set up a new global beverage carton industry platform called GRACE - The Global Recycling Alliance For Beverage Cartons and the Environment. This is a platform for the industry in its drive to ensure that beverage cartons are recognized as net zero-carbon

emissions packaging contributing to climate change mitigation and are effectively collected and recycled worldwide.

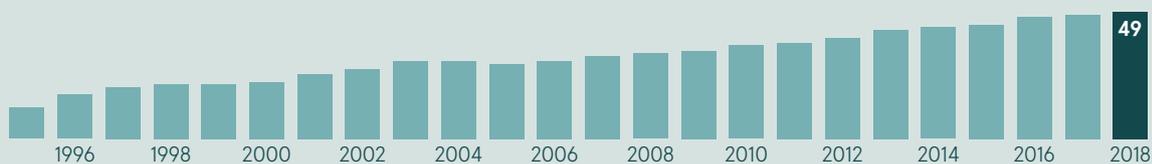
Elopak is a founding member of EXTR:ACT, a European platform to increase the collection and recycling of beverage cartons and similar fibre-based multi-material packaging, including the non-paper components such as polymers and aluminium. EXTR:ACT works with the entire value chain to ensure multi-material packaging is designed with the life cycle in mind as well as being able to be collected, sorted, recycled and reused in varying markets.

Industry initiatives

Overview of the key industry associations Elopak is involved in, in addition to other dedicated beverage carton associations in various markets.



Development of recycling rates in EU (percent)



Source: ACE - The Alliance for Beverage Cartons and the Environment



Emissions

Emissions of greenhouse gases into the atmosphere is the main driver of the climate changes we see happening on the planet. Human emissions of greenhouse gases – carbon dioxide (CO₂), nitrous oxide, methane, and others – have increased global temperatures by around 1° since pre-industrial times.

Elopak was one of the first companies in the world to formally pledge to cut greenhouse gas

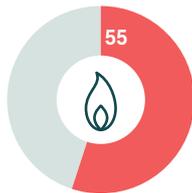
emissions in line with the strictest criteria set by the Science Based Targets (SBT) initiative. We are committed to keeping global warming below 1,5°C.

Elopak has since 2008 reduced the greenhouse gas emissions from our own operations and our supply chain. From 2008 to 2018 the greenhouse gas emissions have been reduced by 70% due to several reduction initiatives, as well as use of renewable electricity.

Elopak's Science Based Targets

Scope 1

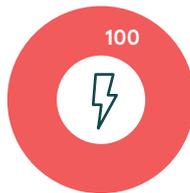
Natural gas, propane, heating oil, waste incineration, wood



55% reduction by 2030

Scope 2

Electricity, district heating



Continue to purchase **100%** renewable electricity

Scope 3

Business travel, transport, raw materials and filling machines



16% reduction across the value chain by 2030

Science Based Targets

Science Based Targets is an initiative which sets guidelines to scientifically calculate targets for companies' contribution to decarbonization in line with the Paris Agreement. Originally, this agreement set out keeping the global average temperature increase below 2°C compared to pre-industrial temperatures. However, the SBT initiative launched new guidelines in 2019 for target-setting in line with the 1.5°C target.





Scope 1

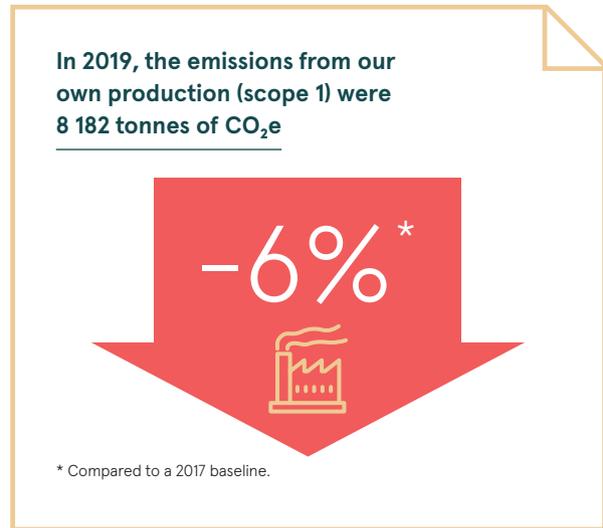
Natural gas, propane,
heating oil, waste incineration,
wood





Energy use accounts for a large part of Elopak's internal CO₂ emissions and efforts to reduce energy consumption are a high priority. We are focusing on two key strategies on the path to a renewable energy future. These include undertaking energy efficiency measures across the company and reducing emissions associated with the purchase of energy.

In terms of energy efficiency, Elopak has improved the last ten years. Overall, the amount of energy used per produced carton has been reduced by 20% since 2008. Through our sustainability program, further energy optimizing projects will be initiated.



Switching from heating oil to district heating in Aarhus

In 2016 Elopak Aarhus started a project to switch from heating the plant with oil to utilizing only district heating. They have also switched most of the oil-fired converters in the production to electric power. The project is still ongoing, but the

goal for 2020 is to stop the use of oil completely at the plant.

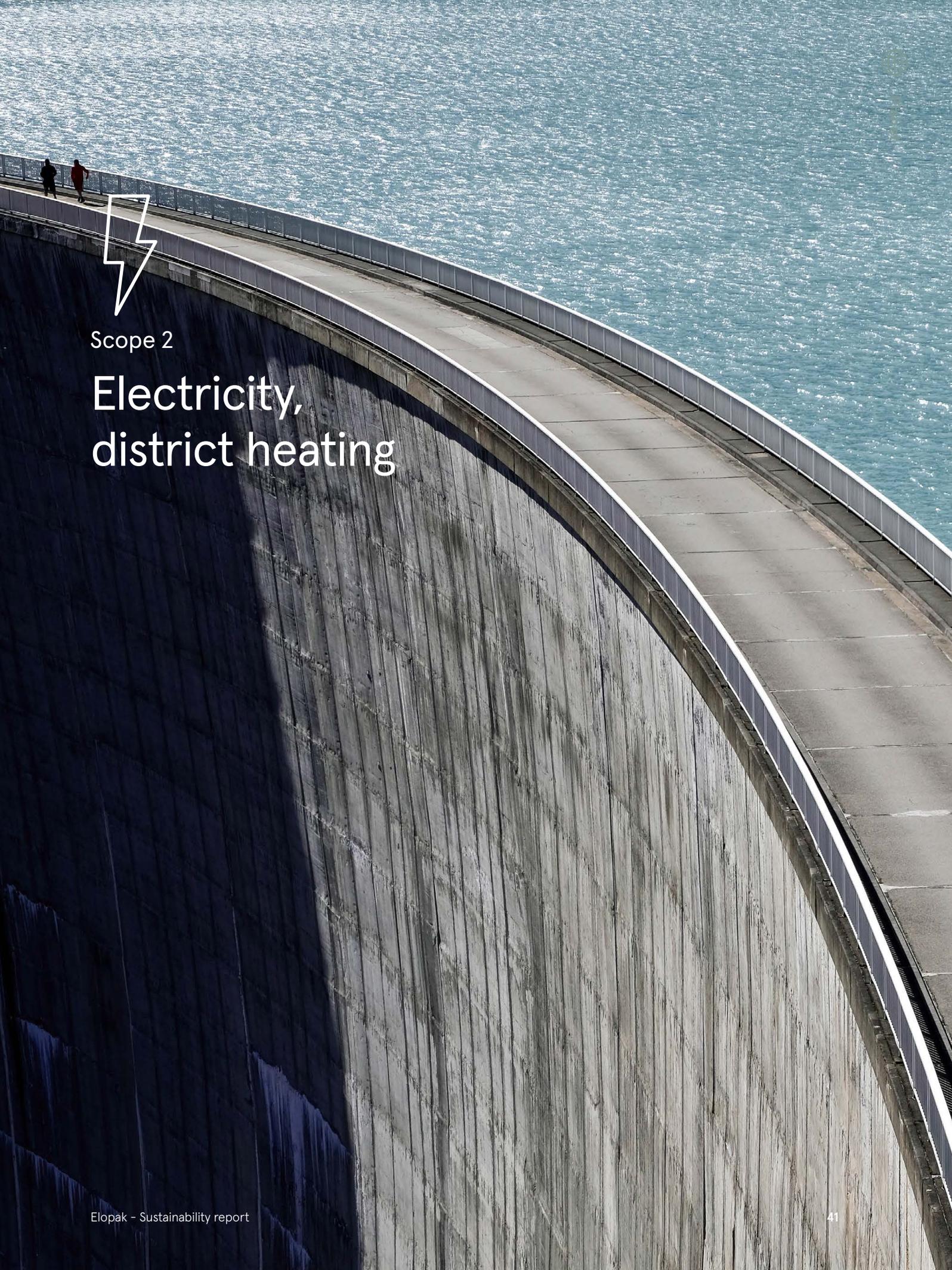
Since the project started in 2016, emissions from heating oil have been reduced by approximately 64% at the plant in Aarhus.



Switching from propane fired to electric forklift in St.Petersburg

In 2019 the Elopak plant in St. Petersburg switched from using propane-fired forklifts to using electric ones. This project has led to a reduction in Scope 1 emissions by approximately 95 tonnes CO₂e.





Scope 2

Electricity, district heating



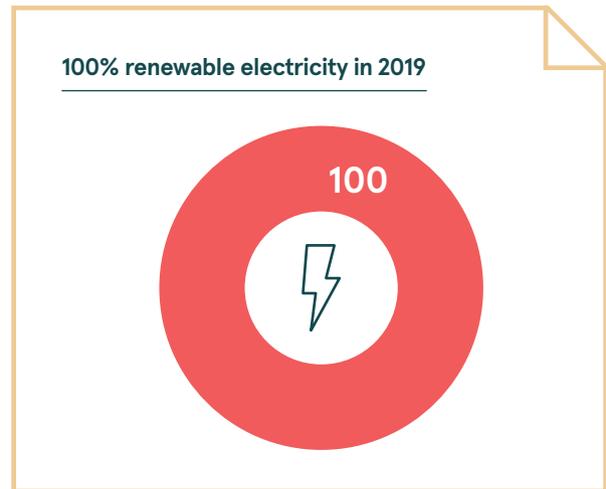
In 2015, Elopak became the first packaging company and the first Norwegian company to join the RE100 campaign, committing to sourcing 100% renewable electricity from 2016 onwards for all fully owned production units and offices worldwide. We in Elopak are proud to have sourced 100% renewable electricity since 2016.

Sourcing renewable electricity means sourcing electricity generated from renewable sources such as hydro power or wind power. The emission factor for renewable electricity is considerably lower than the emission factor for electricity generated from non-renewable fossil sources.

To source renewable electricity, companies can either invest in new renewable generation capacity directly, or source renewable electricity by using certificate systems. Elopak has chosen the latter approach, and is purchasing energy certificates, both in Europe and in North-America, that covers 100% of the electricity consumption.

For the European sites the Guarantees of Origin are purchased from the hydropower plant Trollheim, in Norway. For North America (Canada and USA), Elopak purchase Green-e® certified Renewable Energy Certificates (RECs), originating from North American-based wind farms.

Elopaks' Scope 2 emissions have increased by 28% since 2017. This is a slight increase compared to previous years due to a revised EPD (Environmental Product Declaration) from the Trollheim hydropower plant.



In 2019, Elopak's scope 2 emissions were 1 113 tonnes CO₂e

* Compared to a 2017 baseline.

RE100

RE 100

RE100 is a collaborative initiative of influential businesses committed to 100% renewable electricity, working to massively increase corporate demand for, and delivery of renewable energy.



Scope 3

Business travel, transport, raw materials and filling machines

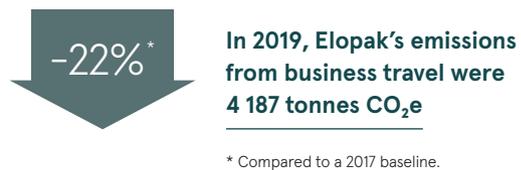
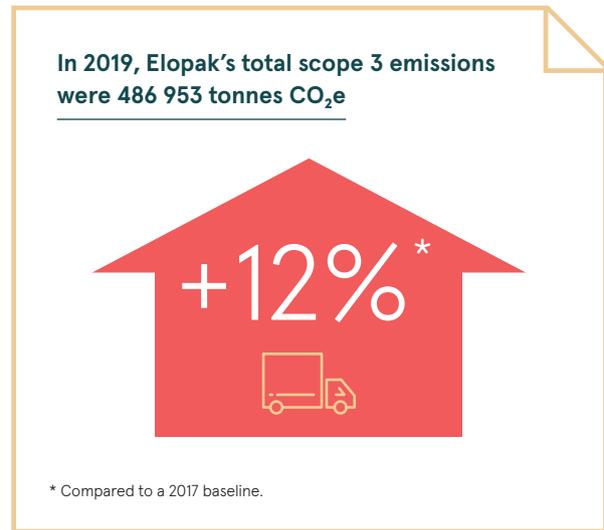


Scope 3 emissions are any emissions in a product value chain that are emitted outside the reporting company. They are emissions that are included in someone else's scope 1 and 2 emissions, but the emissions occur because the product is placed on the market. A value chain life cycle approach is taken to ensure that all emissions related to a certain product is included.

After analyzing Elopak's scope 3 emissions for the 2017 baseline, it was clear that the categories business travel, transport, raw materials and filling machines in operation, were the most relevant categories to report and follow up in our Science Based Targets approach (read more on page 63).

Business travel

In 2019 a new business travel management system was implemented at almost all Elopak sites. The new system makes it possible to extract detailed reports on the emissions from flights from one centralized source that is directly linked to the flight booking system. The new reports are more accurate than previous reports because they are more detailed and consider aspects such as if the flight ticket was business class or economy class. There was also some over-reporting of CO₂e emissions from flights in previous reports, which is now avoided.





Transport

Since 2017 Elopak has had a 15% increase in scope 3 emissions from third party transport. This is due to increased production in our reporting sites since 2017, which naturally leads to increased transport of raw materials and products, in addition to improved reporting.

Although we had an overall increase in emissions, we see improvements such as reductions in internal transport and improved fill rate on trucks. The internal focus has also improved and the choices are becoming more visible in Elopak. We also require our transport suppliers to comply with certain environmental requirements.

Our aim is to reduce greenhouse gas emissions across our entire value chain, for example by:

- Including estimated environmental impact in some key decision calculations
- Internal information on optional transport modes – e.g. from road to sea transport
- Support category managers in logistics & transport choices, including requirements on EURO class of trucks
- Striving to ship full units (fillrate) and reduce urgencies and van transport



In 2019, Elopak’s emissions from third party transport were 47 523 tonnes CO₂e

* Compared to a 2017 baseline.

New technology & availability of solutions will give new opportunities for environmental achievements in the logistics area. Joint focus across the value chain will be an important success factor for such initiatives to be realized.

We see further opportunities for improvements through finding efficient measures, selecting partners and transport modes, and supporting our organization with information on transport modes and available transport options ie. from road to rail or sea, or using larger trailers.

Raw Materials

One of the categories that contribute to scope 3 emissions in Elopak are purchased goods and services. This is emissions related to the extraction and production of the raw materials in our cartons.

Since 2017 Elopak has had a 16% increase in the scope 3 emissions from purchased goods and services. This is due to increased volumes of sold cartons and closures from our reporting units.



In 2019, Elopak’s emissions from purchased goods and services were 351 938 tonnes CO₂e

* Compared to a 2017 baseline.

* Compared to a 2017 baseline.



Carbon footprint of average Elopak PE carton with closure¹

25
gCO₂e/carton
2019

25
gCO₂e/carton
2018

27
gCO₂e/carton
2017

27
gCO₂e/carton
2016

28
gCO₂e/carton
2015

32
gCO₂e/carton
2014

Carbon footprint of products

The carbon footprint of our products includes the production of all raw materials (paperboard, polyethylene, aluminum etc.), Elopak’s own operations including final conversion, and all transportation up to the delivery at Elopak’s customers’ gate. To calculate this, the weight of each raw material and relevant emission factors from suppliers or other sources are applied.

17
gCO₂e/carton
2019

Carbon footprint of average Elopak PE carton without closure

¹ Based on internal cradle-to-gate calculations in Elopak’s DEEP tool, version 9. The numbers represent an average 1 liter PE coated carton with closure sold in Europe, for fresh dairy products.





Optimizing the E-PS120A – our aseptic platform

Reduction of time, water consumption, cleaning chemicals and energy required to clean the filling machines can help reduce the environmental impact of the machines at our customers’ factories. Through focused optimization of process steps during the automatic cleaning of the product transport system and the aseptic chamber a reduction of the total machine cleaning time of 20% could be achieved. The development project started with analysis of the existing process and evaluation of the experience from commercial operation of the existing machines. After having defined and tested the new process in-house, the optimized sequence has been validated in frame of the beta-site testing on one of the E-PS120A filling lines in Germany. The final release of the optimized cleaning process for new and existing machines is scheduled to be in second quarter of 2020.

In addition, a new, fully automated function of an intermediate sterile flush of the product transport system has been developed for E-PS120A. For a defined range of products and applications, it provides the options to change between two products to be consequently filled without the need of performing the full cleaning and sterilization process. That saves a significant portion of energy and chemicals, while increasing the filling machine availability.

Filling machines

Elopak is a provider of filling machines that is used at to many of the world’s leading and most innovative beverage manufacturers across the globe. Our filling machine platform features a space-saving, compact design and fill up to 12-14 000 cartons per hour. With low manpower requirements, the machines have low utility consumption and operating costs. Elopak’s latest specially designed filler valve extends the range of fillable products, enabling the filling of more sensitive and highly viscous products like smoothies, soups and puddings.

We offer research and development support, comprehensive after sales services, technical training and maintenance support. To build a modern filling operation is a complex task, involving the installation of filling and materials handling equipment, plus a network of product tubing and process equipment. The use of sold and leased filling machines at customer site, is a part of Elopak’s scope 3 emissions, and is included in the SBT reporting.

Although we see a slight increase for the total filling machine emissions, we have a 7% reduction per machine, since new machine models have lower emissions than the older ones.



In 2019, Elopak’s emissions from filling machines in operation were 83 305 tonnes CO₂e

* Compared to a 2017 baseline.



Carbon neutral

Although Elopak has worked to reduce emissions since 2008, there are still some emissions that cannot be completely eliminated, such as emissions related to business travel and third party transport. Even though we cannot reduce these emissions to zero, we can compensate for the emissions by supporting emission reduction programs outside of our value chain.

Carbon offsetting releases a creative potential to find cost efficient, technically feasible ways to reduce GHG emissions outside of our value chain. Elopak has been carbon neutral since 2016 according to the CarbonNeutral Protocol and PAS2060. We offset all our company emissions in addition to emissions related to carbon neutral packages delivered to our customers. Since 2016 Elopak has compensated for approximately 200 000 tonnes CO₂e.

Our greenhouse gas emissions are audited every year by a third party. In addition, we are audited according to the carbon neutral standards. The projects Elopak support through carbon neutrality are regularly audited according to well-reputed third parties.

Since 2016 Elopak has compensated for approximately 200 000 tonnes CO₂e.



Certified Carbon Neutral®

The CarbonNeutral® certification is a global standard and the first to provide a set of guidelines for businesses to achieve carbon neutrality back in 2002. It supports reducing carbon emissions to ensure a stable climate, conserving and restoring a thriving natural environment, and transforming the global economy to become net zero.



Carbon neutral projects protecting forests and livelihoods

There are two projects Elopak is currently supporting. The Kenya cookstove project subsidizes the manufacture and sale of fuel-efficient cookstoves across Kenya. This improves cooking conditions, reduces indoor air pollution as well as contributing to local economic growth and jobs. The Rimba Raya rainforest protection project protects the local rainforest and the orangutan population in Borneo, Indonesia, by incentivizing the local population to protect the forest, and by preventing illegal logging by patrols and guard towers. Both of these projects have proven carbon reduction effects, in addition to additional sustainability effects, such as local job creation, education, safety improvement and biodiversity protection.



“The Carbon Neutral cartons provide the perfect opportunity to communicate our customers’ and Elopak’s shared commitment towards a sustainable future.”



Jacopo La Rosa,
Sales Manager

Growth through collaboration

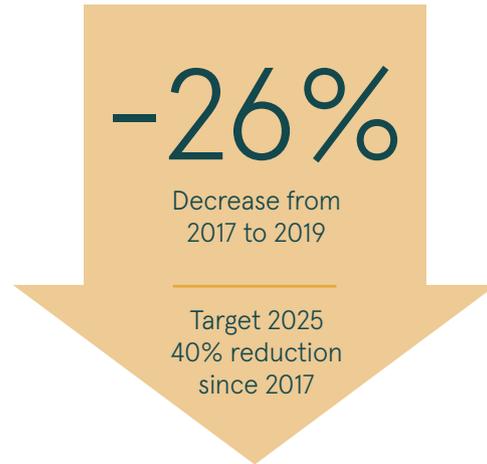
Through Elopak's business we generate economic value together with our key stakeholders. The economic dimension of sustainability is an integral part of Elopak's promise to be a sustainable company and we are convinced that sustainability is a driver for economic value. Value is also created through personal development and growth.



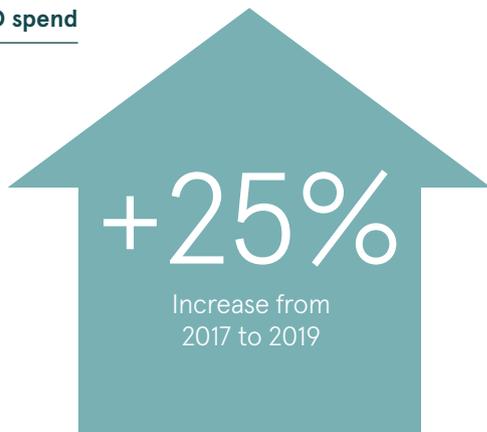
Customer and consumer value

The business purpose of Elopak is to provide carton packaging solutions to consumers and customers to ensure safe and sustainable packaging material in all our markets. We enable our customers to fill and deliver products to consumers with the highest integrity and quality standards.

Claims reduction



R&D spend



Supplier value

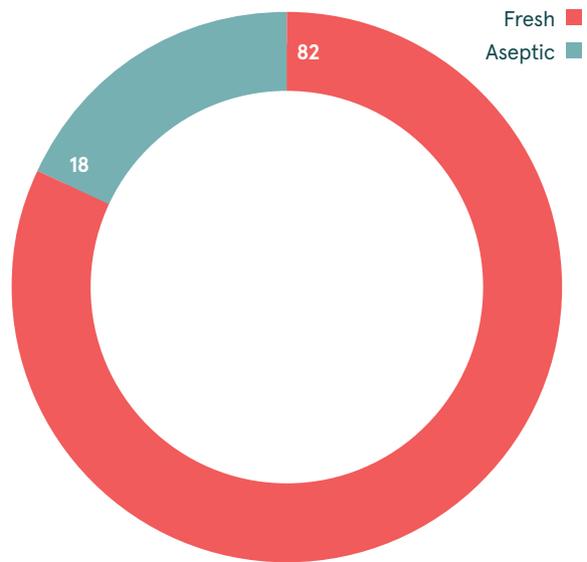
Elopak also collaborate with suppliers on various joint projects to improve our products and board features to improve our offering. These collaborative projects are a natural way of working for Elopak and deliver a shared value to both Elopak, our suppliers and our customers

Market presence

Concern over the environmental impact of products is an established trend, and the past few years there has been a revived interest in sustainability focused specifically on packaging. This is reflected in central government and municipal regulations, consumer attitudes and the values Elopak are communicating via packaging. Elopak intends to lead by example and further increase the efforts on renewable raw materials, by developing new and upgraded products.

The traditional core business of Elopak, the Pure-Pak® carton, showed a good performance in 2019, despite a challenging market with slightly declining consumption. In 2019, Elopak reinforced its organization to accelerate innovation and enable future growth.

Pure Pak® market presence segment (percent)



“Through joint customer projects, we develop and supply packaging solutions which enable customers to perform better and deliver on their sustainability goals.”

 Patrick Verhelst,
CMO (Chief Marketing Officer)



Zumosol in Spain has re-launched its organic juices in 1 litre aseptic Pure-Pak® Sense cartons with Natural Brown Board from Elopak. In a switch from plastic packaging, the premium juice manufacturer found the new more natural and sustainable cartons a perfect fit for its organic portfolio.



“Elopak is a highly relevant addition to our member base. Elopak has interesting solutions to circular packaging and sets ambitious sustainability goals that are well in line with what we see as good work towards our vision of trade that benefits people and the planet. We are looking forward to expanding the collaboration with Elopak on supply chain due diligence and responsible business conduct.”

Heidi Furustøl,
Executive Director of Ethical Trade Norway



Ethical Trade Norway

Ethical Trade Norway is a member-based organisation and resource centre for sustainable trade. The organisation reach 170 members, 100.000 suppliers and 4 million workers. Their work is based on the UN Guiding Principles on Business and Human Rights and the OECD model for Due Diligence for Responsible Business Conduct. Members of Ethical Trade Norway are offered advice and have to report annually on due diligence and supply chain monitoring, allowing them to better understand, prevent and mitigate risks of adverse impact. Members commit themselves to work with due diligence for a more sustainable business practice, and they are obliged to agree to the Declaration of Principles.



Decent work



Human rights



Anti-corruption



Environment/climate



Animal welfare

Sourcing without compromise

The social, ethical and environmental footprint of our products and services cannot be dissociated from our suppliers. In Elopak's process of responsible sourcing we aim to gain more transparency on our supplier's sustainability performance. We want to assure that our supply chain meets the expectations and demands from our customers, end-users and other stakeholders. This evaluation will be based on the below key points:

- Comply to our Supplier Code of Conduct or demonstrate conformance by documenting that corresponding policies or codes are in place
- Key suppliers are more thoroughly assessed via common industry tools (including EcoVadis), self-assessment or certifications as part of our qualification and performance monitoring process.
- Where high risk is identified we will initiate targeted actions

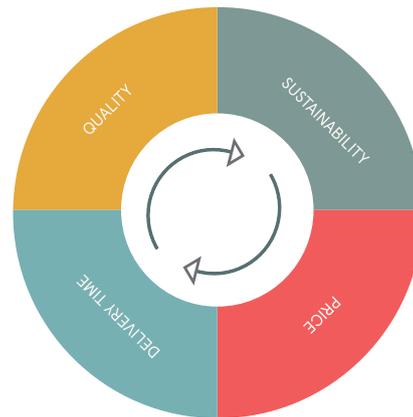
Status

By 2019 approximately 95% of our Raw Material suppliers and in total 85% of all suppliers (by spend) had either signed our Supplier Code of Conduct or demonstrated conformance.

Through this work, Elopak will evaluate and identify strengths and areas in need of improvements for our key supply chain partners. The assessment results will be integrated into our sourcing and supplier assessment processes.

In 2019, Elopak became members of Ethical Trade Norway to further enhance our sustainable value chain approach.

The new procurement model



“For Elopak, sustainability is the license to operate. One way to succeed is to work continuously and systematically with responsible sourcing of the raw materials in our cartons.”

 Erik Voet,
CPO (Chief Procurement Officer)



Elevation – Sharing best practice

Elevation is our framework for the Elopak way of working. It is based on our vision that every employee is a problem-solver, continuously improving work methods, always adding value to our customers. Elevation defines a number of principles and best practices for how we should work to improve the outcome of our daily tasks, always putting the safety of our colleagues and environment first. It outlines how we should involve other colleagues to achieve improvements along the chain of activities, how we need to share information and how we should provide constant feedback not only to learn – but also to encourage the improvement of further endeavors.

Elevation is applicable for all employees: for managers and shop-floor personnel participating in primary supply processes such as procurement, manufacturing and logistics as well as indirectly through various support processes.

All Elopak plants have Elevation managers helping their plants to work with Elevation and continuous improvement. Every year we have workshops for the Elevation managers from our different plants.



“As an informal rule, every Elevation manager is requested to bring at least one idea back home which they can implement at their plant. It should be an improvement to a task or a process.”

 Chris Wilsher,
Senior Lean Manager

Elevation reducing waste

In our Fastiv plant one of the causes of waste is polyethylene (PE) missing on the edge of the printing side of the roll fed board. To solve this a team of people from all parts of production came together to find a solution to reduce waste. The team used a problem-solving tool to ensure that the problem was commonly understood by everyone in the team. The results were formidable as waste on this particular waste cause has been reduced from 0,22% to 0,11%, all within 6 months due to a dedicated team carrying out structured problem solving with supporting tools to support them.

The future of packaging materials

In 2017, the Norwegian green dot organization initiated a long-term research project called “FuturePack”. Elopak joined the project, which aims to find sustainable and economically viable solutions to technological, societal, political and environmental challenges in order to develop plastic packaging materials for the future, also as raw materials for our beverage cartons.

During 2019, the project has researched various packaging methods and materials, and how they influence the quality of fresh foods with short shelf life. Many materials used today are complex structures which are easy to form and seal, but difficult to recycle. Through systematic research, recyclable packaging materials have proven as good as the current ones in e.g. oxygen barrier properties. The project looks further into how

recycled plastics can be combined with virgin plastics, also from



renewable raw materials, focusing on the sensory properties (smell and taste). The project also evaluates the full environmental- and social life cycle impact of all materials and processes through a new LCSA model. The Norner Research coordinates the 13 partners in the project, 8 from industry and 5 from institutes/ universities. Results are expected in 2020 and the project will end in 2021.

Two international FuturePack-conferences have been organized. The event “Plastic in a circular economy – technology, business strategies and innovations for increased recycling of plastics” had more than 100 participants.

Developing the next generation of cartons

In 2019 Elopak, RISE PFI and RISE AB applied for funding for an innovation project by the Research Council of Norway. The project will start in 2020, and the main scope is to develop and demonstrate a next generation milk carton and the process steps needed to produce it. Central research activities in the project are new converting methods, new use of materials, new design and development of

new process steps, including adaptation of filling lines. Elopak will meet the request for more environmental friendly cartons from the society and the consumers by developing, producing and offering a next generation milk carton with positive changes as to environmental impact and recyclability.

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.

We take care of the most demanding and delicate products, ensuring safe arrival to the consumer. Our Elopak Technology Centre (ETC) at Spikkestad in Norway possesses the knowledge and expertise

to develop the right Pure-Pak® carton solution for our customers. Our collaborative approach, in combination with a thorough understanding of the packaging process and filling equipment expertise enable us to develop solutions that really work. At our Mönchengladbach site in Germany we assemble the most technologically advanced filling machines. Our Innovation and Engineering departments perform applied research, securing the company's position as a global systems supplier.





Context, methodology and data

In Elopak, we aim to learn every day. Our key learning from past years, as well as the context and methodology behind our data, is thoroughly evaluated and verified by externals to ensure we stay on the right track.



Looking back

Elopak's Future Proofed Packaging strategy 2020 was launched in 2012 after an extensive process of stakeholder engagement and materiality analysis. The strategy was split into six pillars:

We also presented a roadmap with clear goals within each pillar.

Looking back on our previous strategic achievements within our sustainability work, we find that we have met key goals in some areas and recognized room for improvement in others.

Pillar 1: Renewable Raw Materials. In 2014, Elopak launched our 100% renewable carton with both closure and polymer coating based on renewable raw materials. Our vision "no foil, no oil" was not met completely as we did not launch a renewable alternative to aluminum foil in our cartons. Nor did we meet the target of having 25% fully renewable

cartons on the market, due to the high cost of the renewable raw materials. However, the 2020 target of renewable plastics for closures and H₂O barrier was accomplished already in 2014.

Pillar 2: Sustainable Energy. Elopak joined the RE100 initiative in 2015 and has sourced 100% renewable electricity since 2016. We also became carbon neutral in 2016. On the 2020 target of 25% reduction in energy use per produced carton - the actual result was 20%

Pillar 3: Sustainable logistics. We have collected transport data annually since 2015, and have initially focused on improvements in internal transport between our own factories. We set requirements to suppliers on EURO class trucks and improved on internal processes to optimize supply chain and product flows, however, we were not able to succeed on the specific targets set for 2020. Therefore, we are increasing focus on this in our new sustainability program.

Elopak's previous sustainability strategy



Pillar 4: Customer Operations. In the 2015 report we had already achieved the target of 25% reduction with the new machine park compared to the old machines. However, the focus on emissions from our filling machines is increasingly important in our new sustainability program

Pillar 5: Total recycling. The target to have 50% household recycling is almost met, as Europe has reached a recycling rate of 49% while Canada is at 58%. We also reached the “Zero Elopak waste to landfill” goal.

Pillar 6: Culture and governance. Elopak implemented a global employee insurance system in 2008. We strengthened focus on safety with Global Safety Week which has been held annually since 2012. We also launched our Code of Conduct in 2012, which was signed off by all employees at the time. In 2016, we issued our Global Supplier Code of Conduct to strengthen our focus on a sustainable supply chain. In 2017 we launched our anti-corruption policy and signed an agreement with a third party for a whistleblower platform. PureEthics is our internal training program which presents relevant ethical dilemmas to employees through case studies.

Stakeholders

- Customers/retailers
- Suppliers
- Owners
- Financial institutions
- Consumers/general public
- Neighbors to factories
- Government
- NGOs
- Employees
- Industry associations

Materiality in Elopak

Materiality is a process used to identify priority issues for a company – the issues that matters. It is key in order to define and prioritise future focus areas. The first step is to identify the company’s negative and positive impact on the environment and society.

Elopak has previously performed materiality analysis and did a review of this in 2018/2019. Key questions asked were:

- In which areas does Elopak and our products have an impact?
- Which of the Sustainable Development Goals are most significant and relevant for Elopak?
- What do our key stakeholders define as our key material issues?

Results

Recyclability is currently the top priority for our customers, as many are making promises to consumers and stakeholders on recycled content, low-carbon, use of aluminium and greater filling efficiency. Regulators in Europe and beyond are pushing harder on topics including carbon, packaging, the circular economy, waste and recycling.

Our financial stakeholders – including FERD, the Norwegian investment company that owns Elopak, now see strong performance on environmental and social impact – backed up with numbers – as a critical component of a well-run business and future success. They also want to see companies show how their action is relevant to global challenges – from climate change to the UN Sustainable Development Goals (SDGs).

The SDGs are also increasingly important to our suppliers and the companies we compete and collaborate with in our industry. NGOs and other external stakeholders want to see greater transparency, strong governance arrangements and engagement in frameworks such as the Forest Stewardship Council and the Global Reporting Initiative. We also surveyed our employees and drew many of the same conclusions.

Starting with the raw materials and processes in our supply chain, we find the following impacts:

- Forestry and paperboard sourcing impacts
- Fossil hydrocarbons and their impacts as plastics and fuels
- Aluminium mining and processing impacts
- Chemicals and other impacts of printing
- Agriculture and food production and distribution impacts – from water and fertilizer use to energy and transportation
- Operational impacts from running our plants and offices

The below key issues were identified in the materiality analysis:

- Safety
- Employability
- Social Compliance
- Responsible sourcing
- Recyclability and recycling
- Recycled content
- Renewability
- Low-carbon footprint
- Certification of raw materials

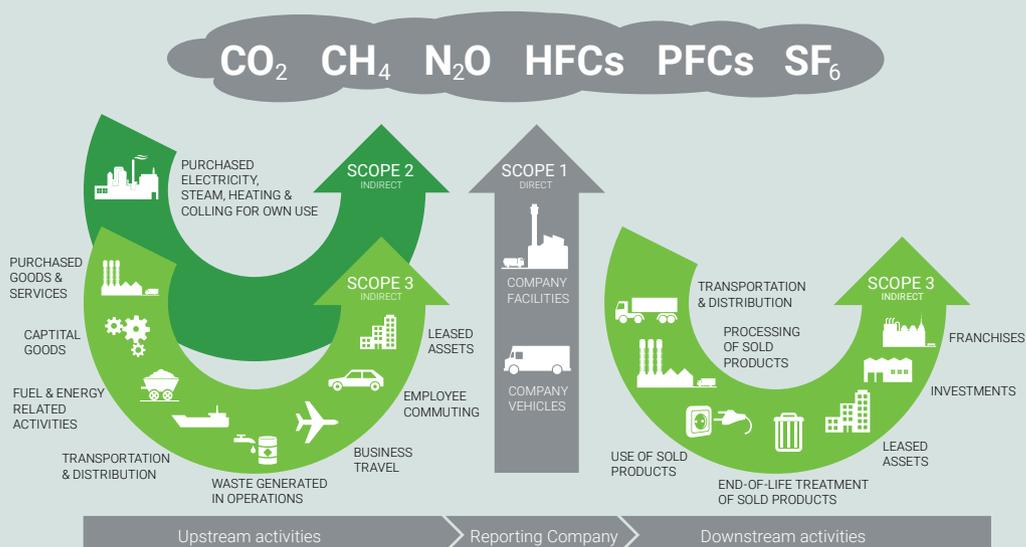
Methodology for our environmental reporting

For transparency and comparability, we have published our key environmental data since our environmental reporting began in 2008. The data originates from Elopak's internal reporting system, Footprinter, collated from production, administration and sales units worldwide. Our environmental data shows the development of Elopak's environmental impact each year, as prescribed in the Greenhouse Gas (GHG) Protocol, including the updated revisions of the GHG Protocol Scope 2 Guidance (2015). Our 2019 data has been audited and verified by SGS in 2020.

How we report

For our reporting, we abide by the Greenhouse Gas Protocol, a widely used standard for corporate environmental reporting. Elopak reports according to the 'operational control' consolidation approach, which covers all Elopak's market units; and converting, roll-fed, coating and filling machine plants worldwide. Joint ventures are excluded. Elopak's greenhouse gas data is reported in both CO₂ equivalents (CO₂e) and in the separate greenhouse gases. According to the GHG Protocol, a company shall divide its emissions into three scopes. These scopes are described in the figure below.

Greenhouse gas emissions scope split



Source: Greenhouse Gas Protocol

Elopak's reporting categories

Science Based Target (SBT)

Scope 1	Consumption of natural gas, propane, heating oil, waste incineration, wood (direct emissions)	55% reduction by 2030
Scope 2	Electricity, district heating	Continue to purchase renewable electricity to cover the entire electricity consumption at all fully owned sites
Scope 3	Category 1: Purchased goods and services Category 6: Business travel (air and cars) Category 4 & 9: Third-party transport Category 11&13: Use of sold products and Downstream leased assets.	16% reduction by 2030

Emission factor updates

For 2019 reporting, all electricity emission factors (scope 2), were updated according to the latest 2019 International Energy Agency’s (IEA) database, known as “CO₂ Emissions from Fuel Combustion.” All site fuels (Scope 1), district heating (Scope 2) and business travel and transportation (Scope 3) emission factors were also updated according to the latest 2019 DEFRA (UK Department for Environment, Food & Rural Affairs) emission factors. By updating all emission factors annually, we are more in line with market realities and emission factor developments that have occurred since we first began reporting in 2008.

Scope 3 evaluations

In the process of setting internal emission targets for scope 3 in line with the SBT, we calculated and evaluated the emissions related to each of the Scope 3 categories. The criteria for selection of categories in scope 3 is that the chosen categories must cover at least two thirds of the total Scope 3 emissions. The table shows all categories in scope 3 and which ones are included in Elopak’s reporting.

From the GHG emission calculations for the three scopes it is clear that scope 3 is the biggest contributor to GHG emissions in Elopak, accounting for almost 99% of the total GHG emissions.

Science Based Target (SBT)	Elopak’s inclusion
1. Purchased goods and services (only raw materials)	Partly included in SBT reporting
2. Capital goods	-
3. Fuel and energy related activities	-
4. Upstream transportation & distribution	Included in SBT reporting
5. Waste generated in operation	-
6. Business travel	Included in SBT reporting
7. Employee commuting	-
8. Upstream leased assets	-
9. Downstream transportation & distribution	Included in SBT reporting
10. Processing of sold products	-
11. Use of sold products	Included in SBT reporting
12. End-of-life treatment of sold products	-
13. Downstream leased assets	Included in SBT reporting
14. Franchises	-
15. Investments	-

Scope 3 is the largest contributor to greenhouse gases in Elopak’s value chain

Our baseline emissions for SBT 2017:



Renewable electricity

Elopak utilizes the market-based allocation method for our Scope 2 accounting. In 2019, Elopak utilized Guarantees of Origin (GOs) to cover electricity consumption of our production and administrative facilities in Europe. For North America (Canada and USA), Elopak utilized a similar system, Green-e® certified Renewable Energy Certificates (RECs). GOs and RECs are systems to trace the source of electricity produced. The purchase is based on actual electricity consumption at various Elopak units within Europe and North America in 2019. The emission factor used for the European GOs is given in the EPD from the energy company in Norway and is 0,0068 (kg CO₂e/kWh), and the RECs have an emission factor of zero.

The European Energy Certificate System (EECS) is the official European system for Renewable Energy Certificates (RECs) that was created to enable cooperation within renewable energy across borders. When the GO is used by a consumer, it is cancelled in the system to prevent double counting. More renewable energy demand leads to more investment in renewable energy and less greenhouse gas emissions. Every country participating in the energy certificate system has a central organization which oversees the national markets for GOs. In addition, the entire European system is overseen by the Association of Issuing Bodies. This ensures the credibility of the energy certificate system.

Business travel

Elopak reports on emissions from business travel, both from flights and cars, by gathering data from all Elopak units through different portals. Due to the implementation of a new business travel management system, Elopak has improved the emission reporting from business travel flights. Some Elopak units are still reporting business travel manually in the internal reporting system, Footprinter. All data, from the new system and Footprinter, is compiled and calculated to get information on the total emissions related to business travel in Elopak.

The emissions reported related to scope 3, category 6, business travel, for 2019 have been third party verified by SGS in 2020.

Transport

Elopak reports on emissions related to business travel and third-party transport. The third-party transport reporting includes transport of all goods from suppliers' gates via Elopak, to customers' gates. All data is gathered, whether the transportation is purchased and handled by Elopak, or by our suppliers or customers.

The third-party transport is split into inbound, internal and outbound transport. Inbound and internal transport includes transport of raw materials and semi-finished products. Outbound transport includes shipment of manufactured and sold products. In estimating transport emissions, we have used a tonne-kilometre approach, as it is a straightforward and consistent method. Furthermore, the input required for this approach is more easily available than the input required for the vehicle-kilometre approach. With the former, we do not need to have full control over the loading of goods. This approach will most likely give us an overestimate of transport emissions, and thus is a valid conservative approach.

The emissions reported related to scope 3 category 4 and 9, upstream and downstream transportation and distribution, for 2019 have been third party verified by SGS in 2020.

Raw materials and cartons

To calculate carbon footprint of our products, we use internal calculations, which have been verified by a third party. We use an internal tool called "DEEP – Dynamic Elopak Environmental Performance" (version 9.0), which is a cradle-to-gate calculation that considers all emissions connected to the production of all raw materials, as well as Elopak's own operations including final conversion, and all transportation up to the delivery at Elopak's customers' gate. The scope covers Elopak's operation in Europe, and in 2019 we also developed DEEP for North America.

The methodology is in line with the ISO standards for Life Cycle Assessments (ISO 14040 and 14044). The Product Category Rules (PCR) for beverage cartons are followed where relevant to the carbon footprint calculation methodology (PCR Beverage Cartons 2011:04 Version 1.0, developed in accordance with ISO 14025:2006).

- Primary data is used for Elopak's own operations and the production of some raw materials.
- Internal production data is taken from Elopak's reporting tool, "Footprinter" (2019 data),
- Purchase of renewable energy certificates.
- Internal transport data is calculated based on reporting from Elopak's units (2019 data).
- Suppliers' primary data is used for key raw materials.
- Secondary data is sourced from LCA databases where this is relevant, such as EcoInvent, and studies for some of the raw materials, such as PlasticsEurope and the European Aluminium Association, as specified in the beverage carton PCR.

The emissions reported related to scope 3 category 1, purchased goods and services (raw materials), for 2019 have been third party verified by Anthesis Consulting Group in 2020.

Filling machines in operation

Elopak is producing filling machines and is both selling and leasing these machines to customers. The use of sold and leased filling machines at customer site is a part of Elopak's scope 3 emissions, and is included in the SBT reporting. In order to calculate the emissions related to sold and leased filling machines, Elopak started with mapping all filling machines ever sold and leased. Then the emissions were calculated per machine, starting with summarising the operation and cleaning consumption and applying emission factors. An estimated operation time for all the filling machines was assumed. For leased machines, consumptions and emissions are calculated for one year, and for machines sold the emissions are calculated for 20 years. IEA per-country electricity consumption factors are applied according to the country of the customer. Factors for chemicals and transport are taken from Ecoinvent 3.4. Another key presumption is that current-year electricity factors are applied to the lifetime electricity consumption. i.e. no provision is made to estimate future reduction in grid electricity emissions.

The emissions reported related to scope 3 category 11 and 13, use of sold products and downstream leased assets (filling machines), for 2019 have been third party verified by Anthesis Consulting Group in 2020.

Carbon neutral company and packaging

The carbon neutral company certification compensates for the emissions related to the manufacturing process, transport and business travel. Carbon neutral packaging extends the scope of emissions to include all the emissions associated with the cartons (raw material production, waste and onward distribution).

Elopak currently supports two projects and both are verified according to international standards used in the voluntary offset market, respectively Gold Standard VERs, VCS and CCB. The carbon neutral certification is in accordance with The Carbon Neutral Protocol and PAS2060 and has been verified by an independent third-party, Anthesis Consulting Group. The carbon neutral certificate is issued by Natural Capital Partners based on verification from Anthesis Consulting Group.

Ecoinvent

The ecoinvent database is one of the world's leading Life Cycle Inventory. It provides process data for products.



Greenhouse Gas Verification Statement Number CCP251468/1/2019/04/2020

The inventory of Greenhouse Gas emissions in the period
January 1st 2019 to December 31st 2019 for

Elopak AS

P.O.Box 418
Skøyen,
N-0213 Oslo,
Norway

has been verified in accordance with ISO 14064-3:2006 as
meeting the requirements of:

The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard

To represent a total amount of:

13,482 tCO₂e

For the following activities

Packaging materials manufacture and supply, office facilities, business travel (air
and leased cars).

Lead Assessor: Paulomi Raythatha
Technical Reviewer: Peter Simmonds

Authorised by:

Pamela Chadwick
Business Manager
SGS United Kingdom Ltd
Verification Statement Date 23rd April 2020

This Statement is not valid without the full verification scope, objectives, criteria and conclusion available
on pages 2 to 4 of this Statement.

SGS United Kingdom Ltd

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(Société Générale de Surveillance)

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Environmental Data

		Elopak Group (inclusive 100% owned subsidiaries)				
		2008	2017 (Baseline)	2018	2019	2019 vs 2017
Scope 1 Total	tonnes CO ₂ e	10 927	8 709	8 290	8 182	-6%
Scope 1 GHG Emission Breakdown	tonnes CO ₂				8 063	
Scope 1 GHG Emission Breakdown	tonnes CH ₄				7	
Scope 1 GHG Emission Breakdown	tonnes N ₂ O				9	
Scope 2 Total (market-based approach)	tonnes CO ₂ e	33 452	868	876	1 113	28%
Scope 2 (location-based approach)	tonnes CO ₂ e	33 452	32 081	31 320	28 459	-11%
Scope 3 Total	tonnes CO ₂ e		432 890		486 953	12%
Scope 3 - Category 6: Business Travel, Travel air	tonnes CO ₂ e	3 491	3 856	4 290	3 273	-15%
Scope 3 - Category 6: Business Travel, Travel car	tonnes CO ₂ e	713	1 502	1 186	914	-39%
Scope 3 - Category 6: Total	tonnes CO₂e	4 204	5 358	5 476	4 187	-22%
Scope 3 - Category 4: Upstream transportation and distribution	tonnes CO ₂ e	-	21 768	37 341	24 687	13%
Scope 3 - Category 9: Downstream transportation and distribution	tonnes CO ₂ e	-	19 381	19 980	22 836	18%
Scope 3 - Category 4 & 9: Total	tonnes CO₂e	-	41 149	57 321	47 523	15%
Scope 3 - Category 1: Purchased goods and services	tonnes CO ₂ e	-	304 087	334 387	351 938	16%
Scope 3 - Category 11: Use of sold products	tonnes CO ₂ e	-	68 252	-	68 244	0%
Scope 3 - Category 13: Downstream leased assets	tonnes CO ₂ e	-	14 043	-	15 061	7%
Scope 3 - Category 11 & 13: Total	tonnes CO₂e	-	82 295	-	83 305	1%
TOTAL Emissions (All scopes)	tonnes CO₂e		442 467		496 248	
Water						
Water consumption	m ³	41 554	43 031	47 760	43 623	1%
Waste						
Recycling of paper and board waste	%	95,3	98,8	100,0	100,0	-
Incineration of paper and board waste	%	4,4	0,2	-	-	-
Landfill of paper and board waste	%	0,2	-	-	-	-
Solvents / inks	kg	181	26	9	112	-
Photochemicals	kg	12	60	-	67	-
Cleaning towels	kg	38	41	103	23	-
Waste oil	kg	3	10	1	3	-
Other hazardous waste	kg	43	50	43	53	-
Total hazardous waste	kg	278	187	156	257	-

“I did then
what I knew how to do.
Now that I know better,
I do better.”

Maya Angelou



Read more at
www.elopak.com

