4 November 2025

Performance powered by nature.

Information sheet

Net zero pathway for the European paper sack industry

Introduction

The European Union's ambitious goal of achieving climate neutrality by 2050 has set a clear direction for the future. In response, the European paper sack and sack kraft paper industry has initiated the development of a net zero pathway document. The project was initiated by the European Paper Sack Research Group (ESG) – a collaboration of EUROSAC and CEPI Eurokraft – in partnership with the Research Institutes of Sweden (RISE). Together, the associations unite stakeholders along the whole paper sack supply chain, including sack kraft paper producers, sack converters and manufacturers of films, adhesives and machinery.

Objective of the net zero pathway

Reflecting the need for a sustainable transition towards carbon neutrality, the net zero pathway's objective is to:

- assess the carbon footprint of the European paper sack industry,
- set emissions reduction targets, and
- develop a strategy for achieving those targets.

The pathway document will be applicable to all EUROSAC and CEPI Eurokraft members, no matter where they are on their carbon journey. By aligning with the road map, individual members can share responsibility, coordinate their actions and demonstrate that they are working both individually and collectively as an industry to decarbonise.

Importance of an industry-wide pathway

In the pulp and paper sector, numerous decarbonisation initiatives have been launched by both trade associations and individual companies, including EUROSAC and CEPI Eurokraft members. Many of these already demonstrate significant progress on their net zero journey. However, a clear, industry-wide pathway will facilitate a broader view of the industry's decarbonisation efforts, provide general guidelines and track the progress. By aligning efforts across the entire value chain, EUROSAC and CEPI Eurokraft members can:

- identify shared challenges and opportunities,
- harmonise their approaches to emissions reductions,
- foster collaboration and knowledge sharing, and
- ensure consistency in reporting and communication with customers.

Close cooperation among all stakeholders in the paper sack value chain will help improve the industry's environmental performance and supports customers in meeting their climate goals. Moreover, reducing emissions aligns with the broader sustainability objectives and social responsibilities of the European paper sack industry.

Performance powered by nature.

Benefits for customers of the European paper sack industry

A joint net zero pathway in the European paper sack industry can offer customers:

- information on the industry's carbon footprint and the main hotspots of emissions,
- simplified reporting for their own sustainability disclosures,
- better planning for future low-carbon packaging demands, and
- reassurance to stakeholders that their packaging suppliers are proactively addressing climate impacts associated with their products.

Data sources

The net zero pathway builds on data from an ongoing ESG project. Every three years, CEPI Eurokraft and EUROSAC conduct a life cycle inventory (LCI) and carbon footprint analysis of sack kraft paper and paper sacks. The latest assessment covers the production year 2021. Based on the total production volumes of the European paper sack industry in 2021, the average carbon footprint per ton of net saleable product (sack kraft paper and paper sacks) was scaled up to estimate the industry's total carbon footprint. At the end of 2025, the pathway will be updated with the most recent data from the production year 2024.

Methodological approach

The calculations and targets for the net zero pathway are guided by the Greenhouse Gas Protocol (GHG Protocol)[1] and Science-Based Targets initiative (SBTi)[2]. However, the methods used and the available data from the 2021 LCI (based on Cepi's Ten Toes methodology) are not fully aligned with the above-mentioned frameworks due to some data gaps, industry-wide perspective instead of a specific company, and incomplete guidance from SBTi for the timber and wood fibre pathway.

Classification of activities into scopes

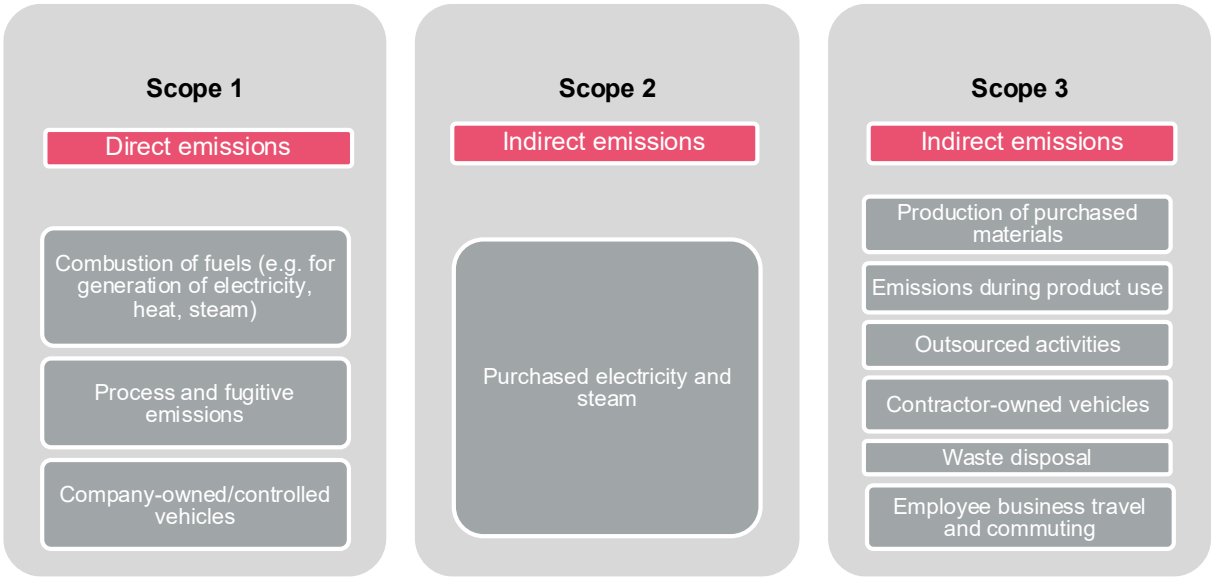
The road map covers the three emissions scopes defined by the GHG Protocol. In this case, scope classification was made from the perspective of paper sack producers, assuming they buy the sack kraft paper rather than producing it themselves. This means that the activities of sack kraft paper producers are classified into Scope 3 as purchased goods.

- **Scope 1**: Direct emissions from on-site fuel combustion by converters (e.g. for electricity, heat or steam) and from process or fugitive emissions (e.g. wastewater treatment).
- **Scope 2**: Indirect emissions from purchased electricity, steam, heat or cooling.

[1] The GHG Protocol provides global standards for measuring and managing greenhouse gas emissions across operations, value chains and mitigation efforts. More: ghgprotocol.org

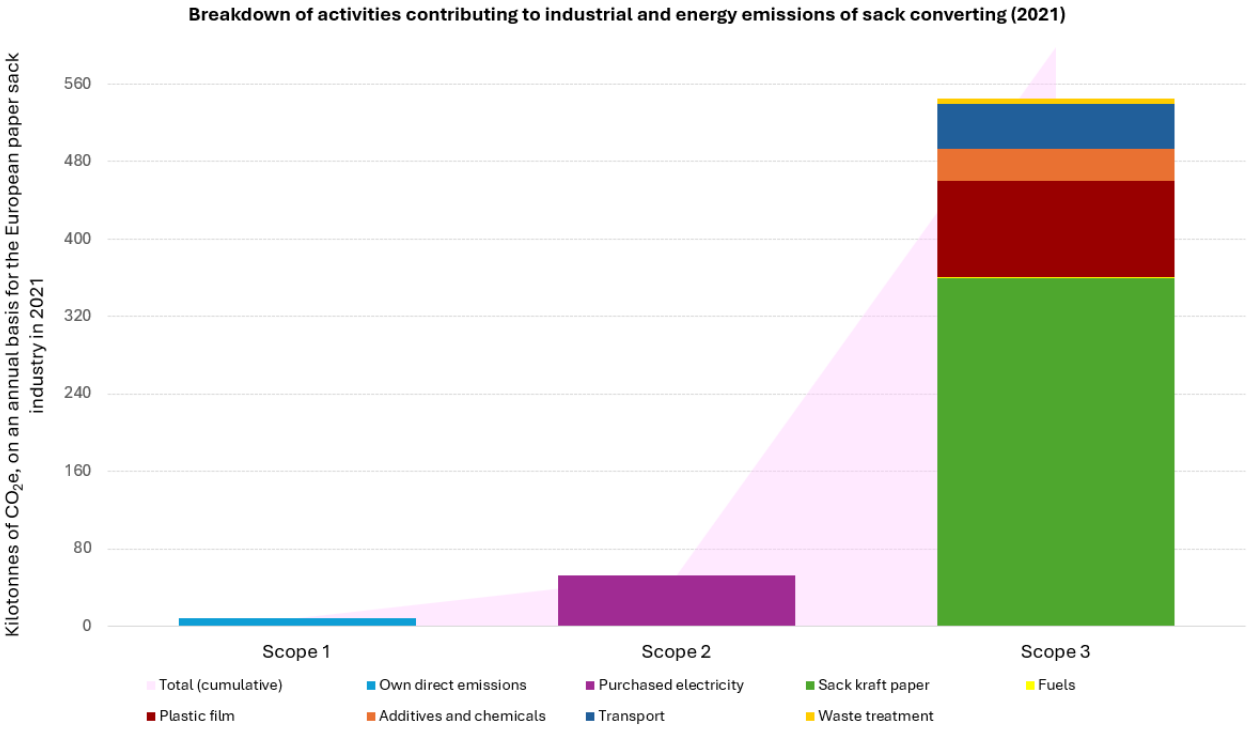
[2] SBTi is an international organisation that helps companies set science-based targets to reach net-zero emissions by 2050. More: sciencebasedtargets.org

- **Scope 3**: Other indirect emissions from purchased goods and services, including emissions from raw forestry products, pulp, films, inks, outsourced transportation and disposal methods such as landfill and incineration.



Focus areas for reducing emissions

The current fossil footprint data of paper sacks provides an overview of the main sources of emissions and highlights priority areas where decarbonisation efforts can be most effective.



- **Scope 1**: The 2021 data shows that scope 1 emissions are relatively low for paper sack producers as direct emissions of paper production are classified into Scope 3. Scope 1 emissions can be reduced by increasing energy efficiency and transitioning to cleaner energy sources, such as biofuels, solar, wind or hydropower at production sites.
- **Scope 2**: Emissions can be reduced by purchasing electricity from low-carbon or renewable sources.
- **Scope 3**: Scope 3 emissions are responsible for most of the European paper sack industry's carbon footprint. Sack kraft paper production accounts for 60% of total emissions and 66% of Scope 3 emissions. Other significant contributors include polyethylene (PE) film, truck transportation and printing inks. These categories indicate where the industry's decarbonisation efforts can have the greatest impact. Their emissions can be lowered by sourcing these materials and services with lower-emission profiles. Strong collaboration between all stakeholders in the paper sack value chain will help to collectively address Scope 3 emissions as an industry.

Prioritised areas for decarbonisation efforts

Within the net zero pathway, the industry defined the following near-term priority areas for decarbonisation.

No-deforestation commitment	One of the key priorities for sack kraft paper producers is the implementation of no-deforestation commitments, aligning with the EU Deforestation Regulation and supporting transparent, responsible sourcing.
Switch to renewable electricity and heat	Transitioning to renewable power and heat (biofuels, wind, solar, hydro) can cut Scope 1 and 2 emissions and strengthens the climate profile of the value chain. Several technologies are available, such as electric or biomass boilers, heat recovery systems and hybrid configurations.
Improved energy efficiency and storage	Efficiency measures in energy-intensive processes can reduce demand, costs and emissions, while storage solutions enable smarter use of renewables and operational flexibility.
Low-emission transportation	Optimising logistics, shifting to electric or hydrogen vehicles, and using intermodal solutions can lower transport-related emissions.
Material efficiency	Reducing waste, optimising chemical use and developing lighter yet stronger paper grades can lower emissions while maintaining performance.
Replacement of high-carbon materials	Switching from fossil-based plastics and other carbon-intensive inputs to bio-based, recycled or lower-impact alternatives can help the industry to cut indirect emissions.

Performance powered by nature.

End-of-life management	Improving collection and recycling systems will help keep materials in the loop, lower emissions and support the circular bioeconomy.

Next steps

The industry will continue developing the net zero pathway, and update it as new data becomes available. The members of EUROSAC and CEPI Eurokraft are encouraged to commit to the road map's targets and contribute to achieving net zero across the industry by 2050. Regular updates on the project's progress will be provided to keep customers informed.

Contact and further information

For updates and further information, please visit
www.eurosac.org/net-zero or www.cepi-eurokraft.org.

EUROSAC *is the European Federation of Multiwall Paper Sack Manufacturers. The federation represents over 80% of European paper sack manufacturers. Its members operate in 20 different countries. They produce some 5 billion paper sacks per year, representing 630,000 tonnes of paper converted in 55 plants. Sack manufacturers from all continents and bag manufacturers also contribute to the federation as corresponding members, and more than 30 suppliers (paper, film, machine or glue manufacturers) are registered as associate members.* ***www.eurosac.org***

CEPI Eurokraft *is the European Association for Producers of Sack Kraft Paper for the Paper Sack Industry and Kraft Paper for the Packaging Industry. It has ten member companies representing a volume of 3 million tonnes of paper produced in eleven countries.* ***www.cepi-eurokraft.org***

eurosac

CEPI EUROKRAFT
European Producers of Sack Kraft Paper and Kraft Paper