ROADMAP FOR FOSSIL-FREE COMPETITIVENESS

The fast-moving consumer goods industry

Fossilfritt Sverige

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Preface

Within the scope of the national initiative Fossil free Sweden, 22 industries have put together their own roadmaps to show how they can enhance their competitiveness by going fossil-free or climate neutral. The fast-moving consumer goods (FMCG) industry's roadmap can help the industry make progress toward meeting the national climate objective and thus also help position Sweden as a leader of the green transition.

The FMCG sector encompasses a diverse array of industries whose companies produce, distribute, sell, and advertise various products, and where fossil emissions from the sector originate from various activities. Despite this, we still share many common challenges. Our roadmap shows how the industry as a whole can become fossil-free through joint initiatives and the introduction of new innovative solutions throughout the value chain.

Our roadmap was handed over to the government in the autumn of 2020. A review of the document found it to be a bit too comprehensive, and concluded that it would benefit from simplification and a clearer focus. The roadmap now focuses on the Swedish FMCG industry's emissions caused by the use of fossil fuels and fossil raw materials in the entire value chain for products sold in the Swedish market. There is now a particular focus on the areas in which the grocery industry has a direct impact either as a producer or as a customer.

We have also clarified our calls to our important stakeholders – not least politicians.

Our updated roadmap is simplified and easier to understand with a clearer focus and well-defined boundaries. It is, in short, the grocery industry's plan to become fossil-free and our contribution to making Sweden a leader of the green transition!

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Summary

The transition to a fossil-free fast moving consumer goods (FMCG) industry is an important prerequisite for maintaining and increasing competitiveness. The FMCG industry has seen a positive development towards an increased use of fossil-free energy sources and raw materials throughout the value chain. A decreased use of fossil raw materials in primary production is underway. The industry is using more fossil-free fuels, and the amount of fossil-free raw materials in packaging is increasing and hard-to-recycle plastics are being phased out.

In order to achieve the Swedish grocery industry's vision of being fossil-free throughout the value chain by 2045, continued efforts are required. In primary production, the production of raw materials, primary materials and packaging continues to account for the majority of greenhouse gas emissions from fossil raw materials, along with energy-intensive production processes and transport.

Since the electricity used in homes is predominantly fossil-free, use-phase emissions from Swedish households are generally low. A general willingness to change behaviour, for example improved waste-sorting, is needed going forward. Our roadmap works as a navigational tool for the industry's transformation process, and with clear examples along the value chain, shows the value chain where companies in the FMCG industry have the best opportunities to make a difference and in what way. The roadmap's emphasis is on primary production, processing, packaging, transport and recycling. To support the transition, the Swedish FMCG industry has launched the »DLF Transport Initiative 2025« and "DLF Plastics Initiative 2025«.

These initiatives continue to be instrumental in our industry's work towards fossil-free transport as well as to improve the conditions for reduced and circular plastic use. The transformation to a fossil-free grocery industry requires investments as well as increased access to fossil-free energy sources and inputs.

Continued financing of the investment program »Klimatklivet« (»The Climate Step«) is necessary in order to drive the transition and secure access to a cost-effective fossil-free energy system throughout Sweden, including the necessary expansion of transport infrastructure for non-fossil fuels. Collaboration, investment and innovation are the keys to continued success.

Introduction

The roadmap was developed within the scope of the national initiative Fossil free Sweden with the aim of achieving a fossil-free grocery industry in Sweden by 2045 - while maintaining competitiveness and striving for cost neutrality in the transition.

An industry-level roadmap is an important tool in the process, and is seen by the FMCG industry as support for its own development. It also conveys an important message to the industry's customers and partners, as well as to political actors and society at large. All these stakeholders influence the conditions for the realisation of a fossil-free value chain, and the roadmap should provide them with relevant information.

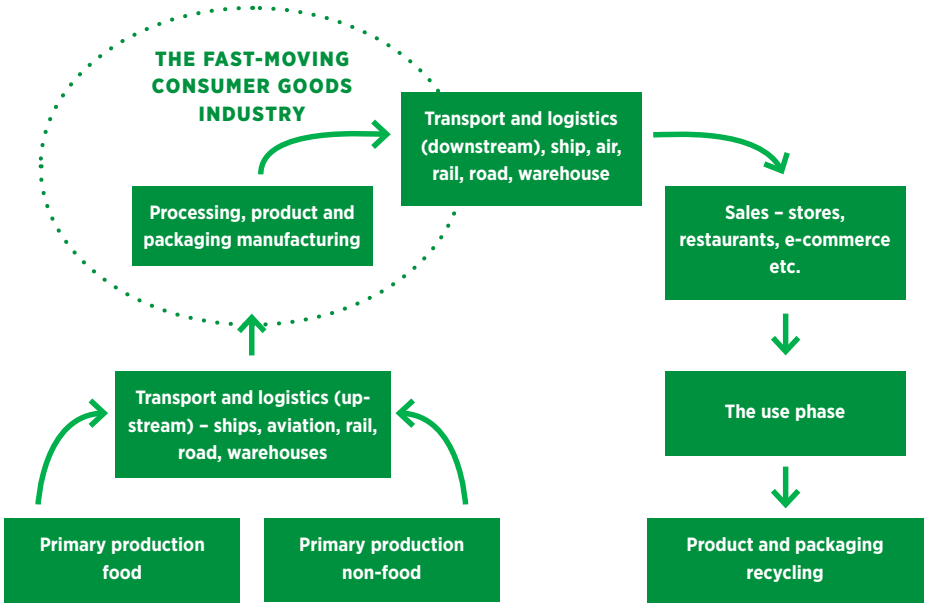
A roadmap connects what you know (fact-based) today to what you can imagine about the future. We hope that this roadmap will help companies in the grocery industry to take the first steps on a journey towards a fossil-free future. The roadmap also explains how others, for example our suppliers and customers as well as politicians, can act to support the transition.

THE FMCG INDUSTRY

The Swedish fast-moving consumer goods industry is composed of companies selling fast-moving consumer goods like food, drinks, beverages, chemical products, cosmetics, hygiene products, newspapers, tobacco and special goods for the retail, restaurant and foodservice sectors in Sweden. The industry is diverse. Companies in the sector have produced different kinds of products, have diverse business models and organise their operations differently. Many companies manage products across multiple categories. Some use mainly Swedish raw materials, whereas others sell products based on imported ingredients. In some companies, product manufacturing is partially integrated with primary production of the input product. Others focus on importing and selling products manufactured by others.

Creating a common roadmap for such a diverse industry is quite a challenge. Companies use fossil fuels and fossil raw materials in different ways, and their ability to act depends on which businesses they have direct and indirect infuence on. It is therefore not possible to create

Figure 1: **The FMCG value chain**



and visualise a common picture that would be relevant to each and every member company.

However, the opportunities and challenges that companies have in common are at least as important as those that separate them. For this reason, the industry's companies are positive to acting together.

THE VALUE CHAIN

In order to agree on a relevant roadmap, the industry needs a generalised depiction of a value chain which is relevant to everyone and can serve as the basis for the roadmap. See Figure 1.

»Primary production« means operations where ingredients and inputs used in the manufacture of products and their packaging are included. In short, primary production deals with agriculture, animal husbandry and the production of chemicals and materials used in products and packaging. Input products such as chemicals used in facilities for maintenance and cleaning are also included. In some cases, companies in the grocery industry work closely with primary producers, e.g. through cooperative ownership. In other cases agriculture and raw material production are carried out with suppliers that the industry can influence as customers.

»Transport (upstream)« describes the transports that take the inputs to the FMCG industry's production operations. For the most part, these transports are controlled by others: suppliers, logistics companies or a combination of both. The industry can still influence the environmental impact of upstream transports through supplier agreements.

»Production and manufacturing« includes operations where input goods become daily goods and are packaged for the market. In most cases, these operations are owned and run by member companies of the grocery industry, but some companies import and sell products that are produced abroad by other industry players.

»Transport and logistics (downstream)« includes transport and storage from production and manufacturing to food retail trade, restaurants, and catering.

Downstream transport and logistics can be the responsibility of either the receiving or producing party.

»Sales« includes retail trade as well as restaurants and other actors that deliver daily goods to the end consumer.

The »use phase« includes the consumption and use of daily goods.

»Recycling« includes material, energy and nutrient recycling of products and packaging. In the area of packaging, the consumer goods industry has an ownership interest in recycling operations.

THE ROADMAP'S FOCUS AND BOUNDARIES

The roadmap focuses on the Swedish grocery industry's emissions caused by the use of fossil fuels and fossil raw materials in the entire value chain[1] for products sold on the Swedish market. The roadmap emphasises areas where the grocery industry has a direct impact either as a producer and/or as a customer.

The FMCG industry roadmap devotes most of its attention to areas where of fossil raw materials is extensive, measures that can contribute to significantly reduced emissions from fossil raw materials and areas where the consumer goods industry can have a significant impact. The roadmap is more general where the use of fossil raw materials is more limited and or the industry only has an indirect impact.

As is the case with many other industries, the Swedish grocery industry's climate impact is due to more than just the use of fossil fuels and fossil raw materials. Emissions and capture of carbon dioxide through land use and emissions of nitrous oxide and methane in agriculture and animal husbandry account for a significant part of the industry's climate impact. These fall outside the scope of the roadmap, but companies in the industry must also strive to reduce them. In order to succeed, we need to act long-term and in collaboration with others.

[1] Both within and outside Sweden.

Current situation and trends

CURRENT SITUATION

It is not possible to compile a single, precise description picture of the Swedish grocery industry's impact from fossil raw materials in the value chain. Where in the value chain a company has the most impact depends on many different factors, for instance whether the company produces food or non-food, product portfolio, production processes and inputs and their origin. Given this complexity, we have not specified the size of emissions along the value chain. Instead, we have mapped the most common fossil sources. Companies can use the description to identify their fossil fuel emissions and to reduce them.

The data we used to describe the situation today come from research and some of the grocery industry's member companies. The participating companies cover a relatively broad part of the industry's various operations, but the information that follows below should be seen as indicative. It does not reflect the reality of each individual company, nor should it be used as a summary for the entire grocery industry.

Table 1 **Risk of emissions from fossil sources**

	FOSSIL FUEL	FOSSIL ELECTRICITY AND ENERGY	RAW MATERIAL
Primary production	●	●	●
Processing		●	
Packaging		●	●
Transports	●		
Sale		●	●
Recycling		●	

A larger circle indicates an increased risk of emissions from fossil raw materials.

FOSSIL SOURCES IN THE VALUE CHAIN

Today, the consumer goods industry's emissions from fossil raw materials arise at all stages of the value chain. Production of raw materials (food), primary materials (non-food) and packaging are often large sources of emissions. Energy-intensive production processes and transports can also cause a lot of emissions. Emissions from fossil energy sources are generally low in the use phase in Swedish households as the electricity used in the home is largely fossil-free.[2] If a product generates a lot of waste (e.g. food waste, non-food waste), emissions from fossil raw material arise in the handling of it.

[2] https://fossilfrittsverige.se/roadmap/elbranschen/

FOSSIL SOURCES AND THE POSSIBILITY TO INFLUENCE

An overview of fossil sources within the daily goods industry's value chain can be found in Table 2. The sources can mainly be divided into three areas which, in varying degrees, cut through several or all of the steps in the value chain:

- Fossil fuels and fuels for transports across the value chain, for example aircraft, trucks, boats and agricultural machinery.
- Fossil energy sources for electricity and energy for production throughout the value chain, such as production of inputs for non-food products and mineral fertiliser, production in the refining process, cooking and heating of hot water in households as well as production and recycling of packaging.
- Fossil raw material, for example in plastics and chemicals

In primary production for food the biggest source is fossil energy and fuel. For non-food, the choice of material can also be a fossil source. The grocery industry normally has only indirect ways of influencing processes and energy sources within primary production. The grocery industry has a direct influence on choice of materials.

At the refining stage, the major source in production is fossil energy sources, which can be both electricity and high-grade energy. Here, the grocery industry has a direct impact and there is little difference between food and non-food.

The fossil foot print from packaging primarily comes from fossil energy sources in the production and recycling of packaging, but also from fossil raw material in plastic packaging, as around 99% of all plastic is made from fossil oil.[3] Manufacturing of certain types of packaging (f.i. glass and aluminium) is particularly energy-intensive, which means that emissions will be significant if the energy source during production is fossil. As for the choice of packaging, the grocery industry has a direct impact.

Table 2: Possible fossil sources

THE VALUE CHAIN	FOOD	NON-FOOD
Primary production	• Fossil energy in the production of input goods • Fossil raw material in chemicals for maintenance and cleaning • Fossil fuel	• Fossil raw material in materials • Fossil raw material in chemicals for maintenance and cleaning • Fossil energy in the production of input material • Fossil fuel
Processing	• Fossil energy in production • Fossil raw material in chemicals for maintenance and cleaning • Fossil fuel	
Packaging	• Fossil raw material in packaging material • Fossil energy in the production of packaging material	
Transport	• Fossil fuel used in transport and distribution upstream and downstream	
Sales	• Fossil raw material and energy for store and campaign material plus packaging. Fossil energy in the store, f.i. premises, coolers.	
The use phase	• Fossil energy use in homes	
Recycling	• Fossil energy during recycling, incineration and composting	

[3] https://www.regeringen.se/rapporter/2022/02/sveriges-handlingsplan-for-plast/

In the transport step of the value chain, the main source is fossil fuels and fuels for vehicles and means of transport. Transportation of daily goods includes both rail and road transport, as well as shipping and aviation for imported goods. There is often little or no difference between food and non-food. However, the transport of fresh and frozen goods can affect which types of transport are suitable. Depending on, the weight, shape, and origin of goods, as well as transport alternatives (f.i. trains, biofuels), transport can account for a relatively small part of a product's total emissions or a larger share. In the field of transport, the consumer goods industry is mainly a customer.

At the point of sale, a product's footprint is primarily generated due to fossil raw materials for electricity and energy in the stores. The grocery industry has a very limited possibility to influence this.

Emissions from combustion of fossil raw materials are low in the use phase in Swedish households as the electricity used in the home is 98 per cent fossil free.[4] The same applies to a product like shampoo, where, despite the fact that a lot of energy is required to heat water, emissions are still low because the energy comes from fossil-free sources.

In the recycling phase, there is no major difference between food and non-food. The main source is fossil raw materials during combustion and the grocery industry's impact is indirect.

The FMCG industry can also influence consumer behaviour via product and service development and various offers. This can potentially have positive effects across the entire value chain.

TRENDS

Here we focus on current trends that are relevant for the industry's transition to a fossil-free value chain.

Within primary production, clear changes are discernible that point towards a reduced use of fossil raw materials, even if improvements in many cases are still difficult to measure.

In general, there is an increased use of fossil-free energy sources, such as solar, wind and water energy, throughout the entire value chain including primary production.

Fossil-free fuels are increasingly used for agricultural machinery and the goal of the Federation of Swedish Farmers (LRF) is that Swedish agriculture uses 100% fossil-free fuels by 2030.[5]

Access to mineral fertilisers with lower emissions from fossil raw materials has increased rapidly in recent years, and is expected to continue increasing at a rapid pace through collaborations along the value chain. Implementing purification processes will help reduce emissions in the production of nitrate-based mineral fertilisers, and thereby also its fossil footprint. The availability of fossil-free mineral fertilisers is also expected to increase in the coming years.

Increased efficiency in agriculture; increased use of natural fertilisers and reduced energy use are becoming more common. In some cases, efficiencies arise through the use of new technologies such as satellite driving, nitrogen sensors and other precision cultivation techniques.

Continuous optimisation and efficience improvements carried out by companies in the FMCG industry are increasinly achieved with the help of automation and digital monitoring. In general companies have been able to speed up their investments to phase out fossil raw materials, in part with support from the government program Klimatklivet.

The EU plastics strategy as well as Swedens' national action plan on plastics (M2022/0351)[6] shows a clear trend towards phasing in more fossil-free raw materials, less plastic in packaging plus the phasing out of hard-to-recycle plastics. However, a continued focus is required on increasing the availability of fossil-free plastic raw materials of the right quality and price, as well as on developing circular flows.

An increasing number of transports use biofuels and the electrification of road transports is on-going. Using rail for longer transport distances has also become a strategy to achieve fossil-free transports.

[4] https://fossilfrittsverige.se/roadmap/elbranschen/
[5] https://fossilfrittsverige.se/roadmap/lantbruksbranschen/
[6] https://www.regeringen.se/rapporter/2022/02/sveriges-handlingsplan-for-plast/

Digitalisation in marketing and in-store campaigns has reduced the use of fossil-based materials and packaging, not least thanks to reduced overproduction of promotional materials. This development continues. The in-store promotional material that is still being used is optimised and material selection and packaging are in step with the development of packaging, including the increasing use of fossil-free material.

The industry sees a positive development and many good initiatives have been launched in all parts of the value chain. In order to reach full effect and enable the industry-wide transition to a fossil-free value chain, an increased understanding and coordination of the industry's various initiatives is needed.

The companies' customer relationships have been a driving force for various sustainability initiatives. The interest shown by certain end-customer segments has enabled players in the grocery retail trade to profile themselves as sustainable. Large B2B customers (retailers, restaurants, catering) have also helped jumpstart the trend through their policy decisions.

The trend of trying to throw away less food is here to stay – both among consumers, through increased media interest and from the industry as a whole through concrete joint initiatives such as the »Food Mission« (Matmissionen).

Consumer preferences are simultaneously developing in several different directions: more ready-made food, more food »on the go« that is consumed everywhere, convenience and simplicity as well as new social and experience-centered eating habits at weekends. There is also increased consumer interest in alternative proteins, an increased understanding of and desire to change eating habits in order to reduce the negative impact. Basic consumer needs that continue to be strong are price (something which has been further strengthened by economic turbulence), taste, convenience, quality, and health.

The above trends are expected to continue and impact on the transition of the grocery industry. Some will remain relevant even at the end of the journey. However, it remains to be seen exactly how far we have come by 2045.

Vision, goals and initiatives

VISION

In 2045 the Swedish FMCG industry is fossil-free throughout the value chain. We have achieved this by working with others and have used our influence to speed up progress towards our fossil-free target. Our success was made possible through a transition to fossil-free primary production, fossil-free energy and transports, fossil-free products, increased energy efficiency, development of new technology and innovation.

The FMCG industry's own processes have become fossil-free through increased production of fossil-free energy sources and new infrastructure for energy and freight transport. There is stable access to biogas for processes that require high grade heat.

Domestic transports, both in-house and outsourced, are fossil-free. As a complement to transport via rail, electrified and partly biogas/hydrogen powered trucks are used. Direct deliveries are carried out using quiet electric vehicles. A transition is under way in Europe to fossil-free sea and train transports.

Through joint efforts and cross-border collaborations, we have created the conditions for a competitive and fossil-free FMCG industry.

GOALS

In this section we present the goals included in DLF's (Dagligvaruleverantörerna's) roadmap to achieve its vision that Sweden's FMCG industry is fossil-free throughout the value chain by 2045. We have formulated interim goals for both 2025 and 2030 as well as end goals for 2045. These goals cover all parts of the value chain, except for the use phase where emissions from fossil raw materials are very low.

Table 3: **Goals**

THE VALUE CHAIN	INTERIM GOALS 2025	INTERIM GOALS 2030	END GOALS 2045
Primary production	• Purchasing criteria that reward commodities and raw materials that are produced fossil-free and consist of fossil-free materials	• 100% of commodities and raw materials are produced using 100% fossil-free energy sources	• 100% of commodities and raw materials consist of fossil-free raw materials
Processing	• Important processes in our production have been mapped and plans for phasing out fossil energy sources have been established	• Our own production processes use 100% fossil-free energy sources	
Packaging	• Reduce the amount of packaging on the market • Reduce the use of newly produced fossil raw material in packaging • 100 % of the plastic packaging covered by producer responsibility regulation is material recyclable. • A concrete plan för achieving the goal that 100% of packaging has clear recycling instructions is in place	• The amount of packaging on the market has decreased • A significantly increased use of recycled and fossil-free raw materials has been achieved • 100 % of plastic packaging is recyclable • The use of reusable packaging has increased	• The amount of packaging on the market has continued to decrease • The majority of packaging is made from recycled or fossil-free raw materials • The use of reusable packaging has continued to increase

THE VALUE CHAIN	INTERIM GOALS 2025	INTERIM GOALS 2030	END GOALS 2045
Transports	• Domestic transports, in-house and outsorced, are 100 % fossil-free[7] • Purchasing requirements that require international transports to be fossil-free has increased		• All transports, in-house and outsourced, are 100% fossil-free
Sales	• Companies have mapped their fossil sources from in-store and other sales-promotion material as well as packaging, both as regards fossil raw material and fossil energy sources in production • Action plans have been established • Purchasing criteria for fossil-free raw materials, fossil-free production and server halls	• Increased use of digital promotional solutions in store • All digital marketing is carried out via server halls powered by 100% fossil-free energy sources • The amount of promotional materials in store has decreased • 100% of store and sales-promotion materials and packaging are made with fossil-free raw materials and are produced by 100% fossil-free energy sources	• The majority of in-store sales-promotion activities are digital
Recycling	• 100% of plastic packaging covered by producer responsibility regulation is material recyclable • Transports to collect recycling recycling bins are 100% fossil-free	• The recycling process is carried out using 100% fossil-free energy sources	

INDUSTRY INITIATIVES

DLF Transportation initiative 2025[8]

DLF launched its Transportation initiative in 2019. It is a voluntary commitment and a clear statement of the FMCG industry's intention to work for a transition to fossil-free in-house and outsorced domestic transports by 2025. This ambition remains, despite partially changed conditions.

DLF Plastics initiative 2025[9]

2018 saw the launch of the Plastics initiative 2025, a voluntary commitment aimed at contributing to improving the material recycling rate of plastics in accordance with current regulation on producer responsibility for packaging, and to motivate the industry to move towards circular plastic use. The goal of the Plastics initiative is that by the end of 2025, 100% of plastic packaging covered by producer responsibility legislation that our member companies put on the market will be material recyclable.

Matmissionen (The Food Mission)[10]

In 2021, DLF and Svensk Dagligvaruhandel (the Food Retailers Federation) initiated a collaboration with Stockholms Stadsmission ("Stockholm's City Mission") aimed at making it easier for our member companies to donate excess products that otherwise would become waste, to Matmissionen's social supermarkets. Reduced food waste has a positive effect on the use of both fossil fuels and fossil raw materials throughout the value chain.

[7] https://www.dlf.se/transportinitiativet-2025/
[8] https://www.dlf.se/transportinitiativet-2025/
[9] https://www.dlf.se/plastinitiativet-2025/
[10] https://www.dlf.se/matmissionen/

The path to a fossil-free value chain

The FMCG roadmap visualises the journey from the present to the future vision and contributes to promoting the transition to a fossil-free value chain where collaboration, investment and innovation are keys to success. The process includes several interacting transitions that take place across several levels – within the industry and its surrounding environment, between industries and in the wider society. These changes interact, and changes on one level will have impacts on the other levels.

In order to describe such a complex process in a simplified way, the FMCG industry has chosen to use tables that focus on the different stages in the value chain. The description focuses on the parts of the value chain where FMCG companies have the greatest opportunity to influence. Our analysis identifies these areas as Primary production, Processing, Packaging, Transports and Recycling. Each table summarises Fossil Sources, Challenges, Path to Fossil-free Development and Our Opportunity to Make a Difference.

Calls to our stakeholders are presented for all steps in the value chain, including Sales and Use phases.

PRIMARY PRODUCTION

Transitioning to fossil-free primary production is a challenge that involves finding sustainable and fossil-free raw materials for inputs and chemicals for maintenance and cleaning. Fossil energy must be phased out at all stages of production, and all vehicles must use fossil-free fuel.

Table 4: Primary production

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• Fossil raw materials in inputs such as fertilisers, pesticides, herbicides and inputs for non-food • Fossil raw material in chemicals for maintenance and cleaning	• In today's agriculture large quantities of inputs are used that are largely based on fossil raw materials • Transitioning to fossil-free cultivation requires major changes in the entire primary production system • Fossil raw material in the production of chemicals for both non-food and maintenance and cleaning	• Transition to fossil-free inputs and other raw materials • Different cultivation methods can reduce and/or eliminate these inputs (e.g. organic and/or regenerative methods) • Replace fossil raw materials with fossil-free ones • Product innovation so that the function is achieved with less material and recycled materials in circular value chains to reduce the new use of fossil raw materials until a 100% fossil-free process is achieved	• Require fossil-free inputs and raw materials through purchasing criteria that stimulate innovation and reward change
• Fossil energy sources for powering machines, irrigation systems and other energy-intensive processes such as drying and heating greenhouses	• The transition from today's fossil infrastructure (buildings, vehicles, machinery) to a fossil-free one is a major challenge linked to cost and availability	• Replace fossil-based infrastructure with biogas, HVO, RME, electricity and fossil-free energy sources such as solar and wind power throughout the country	• Request fossil-free energy sources at all levels through purchasing criteria which reward fossil-free production
• Fossil energy sources for the production of raw material	• Access to fossil-free energy and fuel vary geographically • The availability of alternatives to fossil-free fuels is more limited, and often comes with a premium price which makes it less commercially viable	• Create incentives for a rapid expansion of availability	
• Fossil fuels för machinery and vehicles within forestry and agriculture	• Switching to fossil-free fuels requires major changes in the entire logistics chain, as the alternatives to today's fossil-based fuels lead to increased costs. In some areas, there is a lack of infrastructure and supply.	• Switch to fossil-free fuels where possible. • Replace vehicles that only run on fossil fuels and switch to biogas, HVO, RME etc. Choose electric where possible.	• Request fossil-free fuels in primary production through the use of purchasing criteria that reward transition

CALLS TO OUR STAKEHOLDERS

Politicians

- Continued financing of ”Klimatklivet” in order to drive the transition to fossil-free primary production
- Support arable land-based biofuel production provided it doesn’t lead to conflicts between the production of bio-raw materials and food supply

LRF (The Federation of Swedish Farmers)

- Push for domestic fossil-free production of artificial fertilisers

Suppliers

- Set internal goals to move towards becoming fossil-free

PROCESSING

Processing of fast moving consumer goods, both food and non-food products, requires electricity and energy, which currently come from both fossil-free and fossil energy sources.

We need to replace fossil energy sources with fossil-free alternatives, which requires investment and increased supply.

Table 5: **Processing**

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• Fossil energy sources in production	• Production processes powered by fossil energy	• Switch to fossil-free energy in production	• Map important processes • Request fossil-free energy sources, including energy, through purchasing criteria that reward fossil-free production • Invest in new technology, machines and equipment to enable a switch to fossil-free energy sources
• Fossil energy sources for heating	• Heating/cooling of premises with fossil energy	• Switch to fossil-free energy sources for production of heat and cooling	• Request fossil-free energy sources to promote increased fossil-free production of heat and cooling

CALLS TO OUR STAKEHOLDERS

Politicians

- Ensure access to a cost-efficient fossil-free energy system throughout Sweden
- Ensure long-term tax exemption on biogas
- Reintroduce energy efficiency investment support, e.g. »Energisteget« (”The Energy Step”)

Suppliers

- Set internal goals to move towards becoming fossil-free

PACKAGING

In order for the FMCG industry to minimise the overall climate footprint from packaging, including it's fossil footprint, and for packaging to function in a circular economy, several kinds of changes are necessary. Companies can influence the amount of material put on the market, what type of material is used (e.g. increase the use of recycled or fossil-free material) and make sure that packaging is designed for recycling. Increased consumer waste sorting is also necessary. We encourage collaboration within the industry, along the entire value chain, to promote these common goals.

At the same time, the main function of the packaging – to protect the contents, and ensure product quality and consumer safety – must always be top priority. In recent years, packaging has increasingly come into focus both within the EU and nationally, as increased use leads to larger amounts of packaging waste on the market. As a result, legislation has primarily come to focus on the end of the life cycle, as it is an area that is fairly easy to understand and explain. Life cycle analyses, however, indicate that a large part of the environmental impact originates from the beginning of the life cycle and the choice of raw material, rather than from what happens after the packaging is used.

Given that the choice of raw material is critical for the total environmental impact, we believe that fossil-free materials should be seen as equal to recycled materials as both are good and prioritised choices. We should also promote the production and use of recycled material over newly produced fossil raw materials.

Calls for reduced packaging waste tend to be met solely with proposals to require the use of reusable solutions. This needs to be supplemented with increased waste sorting by both households and municipalities, including outside the home, so that more packaging can be recycled into new raw materials.

Table 6: Packaging

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• Too much packaging material on the market	• To implement safe and straightforward packaging and systems for reuse	• Increase the reuse of packaging	• Purchasing criteria • Collaborate with parties along the value chain to find new system solutions for reuse
• Overuse of materials	• Design optimised to promote visability on the shelf with high shelf visibility in mind	• Design approaches that help reduce material usage	• Eliminating overpackaging
• Low use of recycled raw material	• Availability of high-quality recycled material at competitive price • Packaging in direct contact with food puts high demands on material quality • PET is the only recycled plastic raw material approved for use in food packaging	• Enable increased use of recycled raw material of the right quality at a competitive price • Investment in an attractive industry centered on recycled raw materials	• Purchasing criteria • Increase the use of recycled raw materials where possible • Collaborate with parties along the value chain and in R&D projects and working groups to find solutions
• Fossil raw material	• Limited availability of non-fossil materials at a competitive price	• Enable increased use of non-fossil raw materials for packaging • Encourage investment in non-fossil raw materials for packaging	• Purchasing criteria • Increase the use of non-fossil raw materials for packaging • Collaborate with parties along the value chain and in R&D projects to find alternatives
• Low plastic recycling rates	• A great deal of plastic packaging is not designed for recycling due to priority of food safety • Low waste sorting and recycling rates	• Design for recyclability • Increased waste sorting • Investments in improved sorting of collected packaging waste and in facilities for mechanical and chemical recycling	• Prioritise recyclability when choosing and designing packaging • Inform consumers that all packaging waste must be sorted at source, and provide them with clear information on how to do this

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• High energy consumption during production and recycling of packaging	• Production and recycling of packaging is energy-intensive (especially metal/aluminium, glass)	• Optimise energy consumption and secure fossil-free energy	• Demands on suppliers, optimise/minimise energy consumption, 100% fossil-free energy

CALLS TO OUR STAKEHOLDERS

Politicians

- Renewable packaging materials should be seen as equivalent to recycled ones from a sustainability perspective in order to reduce the use of fossil raw materials in packaging

The packaging industry

- Focus on research and development of non-fossil raw materials in collaboration with the FMCG industry

Suppliers

- Set clear internal goals to move towards fossil-free

Consumers

- Sort packaging, inside and outside the home

TRANSPORTS

The FMCG industry is primarily a customer in the area of transports. To enable companies to become fossil free in transports, the use of fossil fuels must be phased out in road, sea, air and rail transports. Access to sustainable and cost-competitive alternative fuels such as biofuels will be an important success factor, as will increased access to electric trains.

In line with the FMCG industry's »Transport Initiative 2025«[11] , the roadmap supports the goal that domestic transports used by DLF's members, both in-house and outsourced, should be fossil free by the end of 2025 at the lastest. Beyond 2025, electrified transports will contribute to the phasing out of fossil fuels and stricter demands can be placed on foreign transports.

Table 7: Transports

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• Fossil fuels and propellants for transports upstream and downstream	• Today's alternatives to fossil fuels and propellants lead to cost increases and, in some cases, there is a lack of supply and infrastructure	• Transition to fossil-free transports that use sustainable, fossil-free fuels and propellants for all types of transports, ensure availability throughout Sweden	• Work for the achievement of DLF Transport Initiative 2025[12] • Purchasing criteria that require and reward fossil-free transports

CALLS TO OUR STAKEHOLDERS

Suppliers

- Push for the development of cost-effective fossil-free transport solutions, e.g. through digitalisation, by combining different forms of freight and joint transport
- Set internal goals to move towards fossil-free and sign the DLF Transport Initiative

Politicians

- Ensure long-term tax exemption for clean and highly blended biofuels
- Ensure long-term tax exemption for biogas
- Support the necessary expansion of transport infrastructure for non-fossil fuels throughout Sweden
- Stable and long-term energy agreements

[11] https://www.dlf.se/transportinitiativet-2025/
[12] https://www.dlf.se/transportinitiativet-2025/

CALLS TO OUR STAKEHOLDERS

- Create long-term and cost-neutral rules of the game for investments in production facilities for alternative fuels in Sweden
- Long-term policies for transport infrastructure is required to speed up the transition
- Look into the possibility of further developing transport solutions that include rail transports

Swedish food retail trade

- Create the conditions for fossil-free transport solutions through, for example, local infrastructure for charging and collaboration for optimisation and efficiency
- Strive for collaboration in the industry to promote optimisation and efficiency

SALES

At points-of-sale, the main challenge is fossil-based energy sources for restaurant and shop heating, coolers, freezers, the operation of checkout lines and scanning and lighting. The FMCG industry's customers have a direct impact here.

FMCG companies have direct influence on in-store and other sales promotion materials and on packaging material. This material might be based on fossil raw materials and produced with fossil energy sources. Companies thus have an opportunity to make a difference by continuing to increase digitalisation, optimising the material produced and using purchasing criteria to request fossil-free materials produced with fossil-free energy sources.

Table 8: **Sales**

CALLS TO OUR STAKEHOLDERS

Suppliers

- Set internal goals to move towards fossil-free

The Swedish food retail trade

- Strive for 100% fossil-free energy at the store level

THE USE PHASE

The use phase includes the consumption and use of fast moving consumer goods. Emissions from burning fossil raw materials are low in the use phase in Swedish households as the electricity used in the home is 98% fossil-free.[13] The same applies to a product like shampoo, where, although a lot of energy is needed to heat water, emissions are low as the energy comes from fossil-free sources.[14]

Table 9: **The use phase**

CALLS TO OUR STAKEHOLDERS

Politicians

- Secure maintained access to cost-effective, fossil-free electricity throughout Sweden

Consumers

- Do not overdose/ follow the dosage recommendations for shampoo, soap, washing and cleaning agents
- Avoid food waste, e.g. by following the Swedish Food Agency's advice on their website livsmedelsverket.se

[13] https://fossilfrittsverige.se/roadmap/elbranschen/

[14] Vid tillagning av livsmedel kan fossila utsläpp uppstå vid användning av gas, gasol, stenbitskol

RECYCLING

At a product's final stage, including its waste stage, energy is used for waste management, recycling and composting. The electricity and energy used might come from fossil energy sources. By designing packaging to help reduce that helps reduce waste, the industry can contribute to reducing the amount that need to be handled.

The FMCG industry uses large amounts of packaging. When the packaging is no longer needed, it must be sorted at source so that the material can be recycled in the next step. Even in this step, the energy might come from fossil energy sources.

Considerable quantities of packaging are thrown away with other household waste which means that they go to incineration instead of being recycled. Some packaging that is sorted at source is difficult to recycle due to its design. In this case the packaging is separated out and is used to produce energy. By designing packaging with recycling in mind, the FMCG industry can contribute to circular flows and minimise the amount of new fossil raw material is used for packaging.

Table 10: Recycling

FOSSIL SOURCES	CHALLENGES	HOW TO GET THERE	OUR OPPORTUNITY TO MAKE A DIFFERENCE
• Fossil energy sources for waste management and composting • Fossil energy sources for sorting and recycling of packaging • Fossil energy sources for incineration of packaging	• Processes powered by fossil energy sources • Large quantities of packaging end up in the household waste, and are incinerated • Some packaging that is sorted at source can be difficult to material recycle due to their design	• Switch to fossil-free energy sources in waste management and composting, for sorting and recycling of packaging, and for incineration of packaging • Influence the consumer to increase their sorting of packaging waste in order to increase recycling and thus reduce the use of new fossil raw material • Minimise the amount of waste that needs to be handled by designing packaging that reduces the risk of waste • Design packaging with recycling in mind so that it can be easily recycled without compromising too much on quality	• Inform consumers that all packaging waste must be sorted at source, and provide clear information on how to do this

CALLS TO OUR STAKEHOLDERS

Politicians

- Support research and innovation to enable material-recycled packaging material to be used in contact with food.
- Secure continued financing of "Klimatklivet" to help accelerate the transition towards circularity, in particular as regards the recycling of plastic packaging waste.

Approved producer responsibility organisations, like e.g. Sweden's "Näringslivets Producentansvar"

- Adjust packaging fees so that there is a financial incentive to choose recycling-optimised packaging.

The Swedish food retail trade

- Industry collaboration to clearly communicate to the consumers that all packaging must be sorted at source.

Consumers

- Sort all packaging by following the instructions on the package.

Main calls to politicians

Secure continued financing of ”Klimatklivet” to help accelerate the transition towards fossil-free primary production and processing.

Ensure access to cost-effective fossil-free energy throughout Sweden.

Ensure long-term tax exemptions on fossil-free energy sources like biogas.

Renewable packaging materials should be seen as equivalent to recycled from a sustainability perspective in order to reduce the use of fossil raw materials in packaging.

Support research and innovation to enable material-recycled packaging material to be used in contact with food.

Ensure a long-term tax exemption for clean and high-blended biofuel.

Support the necessary expansion of transport infrastructure for fossil-free fuels throughout Sweden.