GREENHOUSE GAS EMISSION DISCLOSURE 2022

TOWARDS 2030

Preface by the CEOs

The UN's climate panel IPCC has delivered its sixth climate report and states that "urgent climate action can secure a livable future for all". With our climate financial statements, we show that it is possible to achieve great change in a short time. Together, we report what the development looks like, how different companies can contribute to climate change, but also the complexity of reaching the goals. At the same time, we want to inspire other companies to set their own climate goals, take measures, follow up and be transparent.

Right now, there is a war going on in Europe that is affecting our businesses. We see that value chains are affected by greater uncertainties and that the energy transition within the EU, from imported fossil fuels to domestic renewables, affects the availability and price of energy and other raw materials.

"Five years ago, we set up a joint strategy to stay below 1.5 degrees of warming."

Five years ago, we set up a joint strategy to stay below 1.5 degrees of warming. We knew even then that a lot was required of us, that we had to be forward-leaning and that it challenged our companies and us as leaders. We must continue to reduce our emissions according to the UN climate panel's calculations. The serious geopolitical situation we find ourselves in challenges our plans, but at the same time we must stay on course towards the long-term goal. We have a shared responsibility to contribute to the green transition.

The challenges to solving the climate threat are extensive. Responsibility in business therefore needs to be met by policies that support the transition. An improved innovation climate, a favorable and stable environment for necessary investments and a long-term and effective climate policy are required. In addition, increased collaboration is required, both upstream and downstream in our value chains, within Sweden and globally.

Year after year, the climate crisis ranks as one of the biggest risks to sustainable development. Together, we represent more than seven percent of Sweden's GDP, and we want to contribute to a world that stays below 1.5 degrees of warming. The strategies we develop create new business opportunities, strengthen our brands, show our employees that we have high ambitions, reduce our business risks and above all they contribute to a better society.

We want to contribute to change and hope to be able to do so together with politicians in Sweden and the EU. Because business and politics need to work together. Therefore, we extend a hand to politics to jointly build an even better and more sustainable society.

Johan Skoglund
CEO JM

Anders Egelrud
CEO Stockholm Exergi

Magnus Kagevik
CEO Lantmännen

Jens Henriksson
CEO Swedbank

Lars Appelqvist
vd HKScan Sverige

Joachim Knudsen
CEO McDonald's Sverige

Ylva Wessén
CEO Folksam

Sofie Eliasson Morsink
CEO Coca-Cola Europacific Partners

Alexandra Hagen
CEO White Arkitekter

Klas Balkow
CEO Axfood

Anders Fredriksson
CEO Löfbergs

Clas Hultqvist
CEO Stena Recycling

Magnus Heimburg
CEO Preem

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Publisher: Nina Ekelund, Haga Initiative
Project Manager: Malin Redmo, Haga Initiative
Calculations: Göran Erselius et.al., 2050 Consulting
Layout: Caroline Gränsbo, Haga Initiative

HAGA INITIATIVE SHOWS HOW BUSINESS CONTRIBUTES TO THE 1.5 DEGREE TARGET

Executive summary

In the greenhouse gas emission disclosure for 2022, the Haga initiative's report the goal fulfillment towards the 2030 goal for the second year, with an increased focus on emissions along the entire value chain. Two companies, Swedbank and White, are participating in the Haga Initiative's greenhouse gas emission disclosure for the first time.

The greenhouse gas disclosure displays emission reductions for the Haga initiative's member companies in 2022. The total emission shows a reduction of 20 percent compared to the companies' own base year, and by 7 percent compared to 2021. Combined for all companies, the emission reduction is 12.6 million tons of CO2e compared to the base year, and a reduction of 3.9 million tonnes of CO2e compared to 2021. In scope 1, five out of thirteen companies have reduced their emissions compared to 2021.

The increased focus on emissions along the entire value chain is about sharing the business responsibility in the value chain with an increased focus on cooperation between companies.

This year's greenhouse gas disclosure is the second in which the Haga Initiative's member companies report their value chain. Because there are gaps in the reporting, the companies report how much of the value chain is included. They also highlight the difficulties and challenges involved in including all emissions in the value chain.

The Haga initiative works continuously to improve scope 3 reporting, increase understanding of the difficulties, and raise the possibilities of transparently reporting scope 3 emissions.

About Haga Initiative

The Haga initiative was founded at the end of 2010 with the aim of reducing the climate impact of business, raising the climate issue as one of the most important future issues and bringing together companies that take active climate responsibility.

The Haga Initiative consists of thirteen well known member companies: Axfood, Coca-Cola Europacific Partners Sweden, Folksam, HKScan Sweden, JM, Lantmännen, Löfbergs, McDonald's Sweden, Preem, Stena Recycling, Stockholm Exergi, Swedbank and White.

Businesses are central in succeeding with the climate transition, as companies have both the power to innovate and opportunities for rapid change. By showing that ambitious climate strategies provide business advantages and increased profitability, the Haga Initiative wants to drive business in the direction needed to achieve the goal in the Paris Agreement.

To successfully transition, the Haga Initiative is actively working to create the right policy conditions in Sweden and the EU, which enables the business community to contribute in the best possible way. High climate ambitions lead to great opportunities for Swedish companies, create jobs, strengthen Swedish welfare and make the companies internationally competitive.

The member companies of the Haga Initiative have, among other things, undertaken to:

- have a committed CEO/ management that takes active climate responsibility
- have a broad-based, ambitious climate strategy
- regularly measure and account of the company's climate impact according to the GHG Protocol
- have a clear diminishing emissions trend
- achieve net-zero emissions within own operations by 2030 (if the base year is before 2020) or halving emissions every ten years [1]
- have the ambition to halve emissions in the value chain by 2030.

*Total for the Haga initiative's member companies.

1) To reach net zero emissions, other emissions must be compensated. Exception: if the company can significantly and measurably reduce emissions in other scopes.

Haga Initiative’s greenhouse gas emission disclosure

The Haga Initiative's vision is a profitable business without climate impact, with a strategy to contribute to the 1.5-degree target by showing how business can contribute to emission reductions, show the possibilities with a climate transformation, while at the same time highlight profitable measures.

The need for large emission reductions in a short time is clear. The situation is serious and the gap to be in line with the 1.5-degree target is growing, while emissions are increasing globally. In 2022, the UN climate panel IPCC presented the report "AR6 Climate Change 2022: Mitigation of Climate Change" which underlined that global warming now amounts to 1.1 degrees and may increase to 1.5 degrees as early as 2030 -the number. This means tangible effects worldwide and increases the risks for both ecosystems and people.

But there are solutions in all sectors. The transition needs to be accelerated and scaled up, and business has a key role to play in accelerating the pace through innovation and opportunities for rapid change.

Working with emission reductions is a long-term mission that never ends. A first step is to know where you stand by calculating your climate impact. After that, a strategy and clear climate goals are needed, along with continuous measures to reduce its climate impact, transparently report emissions and follow up the outcome annually. A company at the forefront communicates its climate strategy and acts as a social actor to influence policy to be in line with the Paris Agreement's 1.5-degree target.

The Haga Initiative's commitment is to ensure that all member companies live up to this and work together to drive policy and business in that direction. The results for the greenhouse gas emission disclosure 2021 showed that all but one of the member companies reduced their emissions. The average emission reduction per company was 42 percent, compared to the base year. For the greenhouse gas emission disclosure 2021, the Haga Initiative reported the new goals for 2030 for the first time. Read more about the goal in the following chapter.

The new goals for 2030 imply a expanded scope 3 reporting. By working with scope 3 emissions, companies have a decisive role in influencing actors in the value chain to change, which can contribute to helping companies take steps towards a more sustainable future. Mapping, following up and above all, reducing emissions in the value chain requires increased cooperation along the entire value chain, raised ambitions and increased responsibility in business, Swedish climate policy as well as in the EU. It is about sharing the business responsibility in the value chain, in addition to focusing on one's own operations.

With only seven years until 2030, these next few years will be important. The new leadership imply increased climate responsibility and cooperation and are needed now more than ever to contribute to emission reductions in the entire value chain.

Haga Initiative's calculation method and the GHG Protocol

All calculations and reporting under the Haga Initiative conform to the guidelines set out in the Greenhouse Gas Protocol, which is the most widely accepted international accounting standard for understanding, quantifying, and managing greenhouse gas emissions.

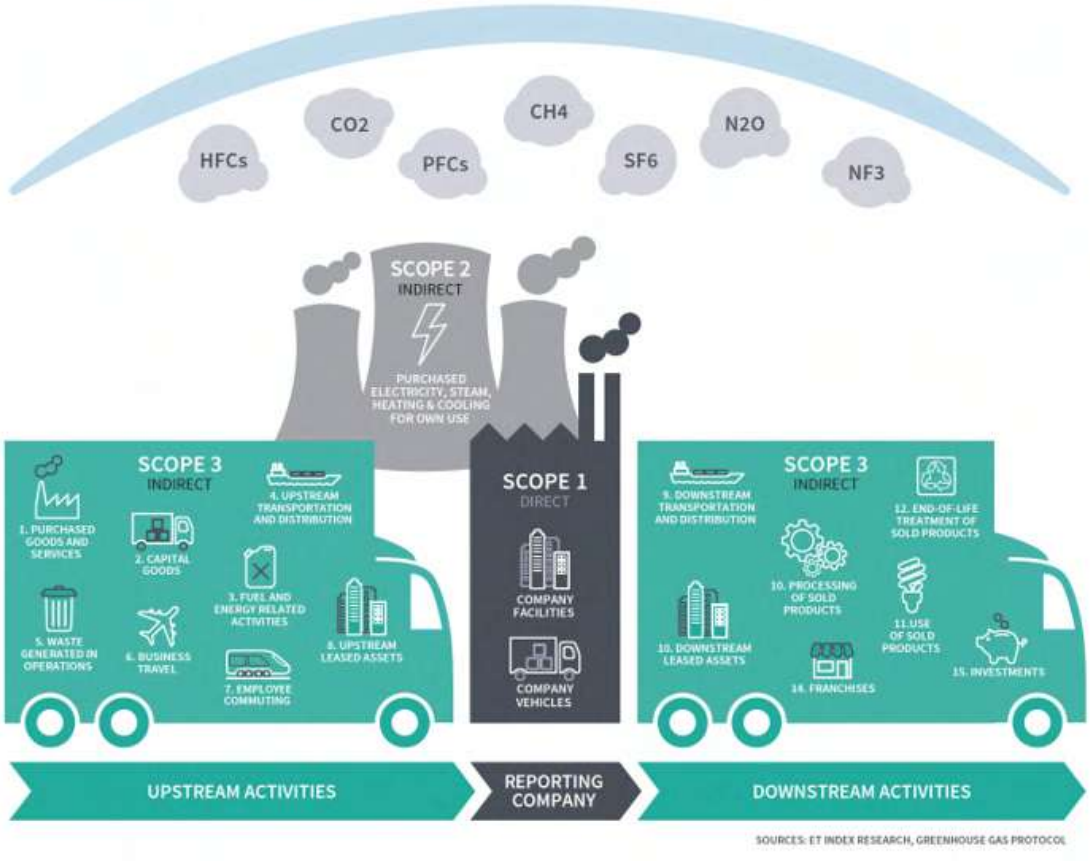
The Haga Initiative's calculation method describes the methodology used by the Haga Initiative for the emission sources that are relevant to the calculation of climate impact. The scope or scopes in the GHG Protocol to which the emissions belong are detailed in each description. Emissions are classified as either scope 1 (direct emissions), scope 2 (indirect emissions from purchased energy) or scope 3 (other indirect emissions). Click here to read more about the calculation method.

The member companies can choose their base year from 2015 or later. However, companies that have set a target in the near future have been granted an exemption to be able to report their scope 1 goal before they change base year. For scope 3, the base year must be 2015 or later.

The member companies can choose to set absolute or relative targets for achieving net-zero emissions by 2030.

The GHG protocol follow the principles:

- **Relevance** – the reporting shall reflect the emissions of the company or organization in a relevant manner, so that it can be used as a basis for decisions both internally and externally.
- **Completeness** – – the reporting shall cover all emissions within the stated system boundaries. Any exceptions shall be described and explained.
- **Consistency** –the calculation methodology shall be consistent to allow comparisons to be made over time. Changes in data, system boundaries, methods or similar shall be documented.
- **Transparency** – all background data, methods, sources, and assumptions shall be documented.
- **Accuracy** – the calculated emissions shall be as close to actual emissions as possible



Specific requirements for members of the Haga Initiative

In addition to the general scope 3 requirements, there are several specific requirements for the Haga Initiative's members that apply to regarding scope 3 reporting:

- Emissions in scope 3 (upstream and downstream) must be mapped/assessed and identified. Moreover, a strategy for reducing emissions must be developed based on significance and capability. Capability refers to the one who has either the financial opportunity and/or the practical responsibility.
- For the scope 3 categories that have significant emissions (large or medium-sized source of emissions), and where the company has control, the company must present a plan for how to reduce the emissions. The companies present their plan to the Haga Initiative's project group.
- The plan to reduce emissions in scope 3 shall include:
  - Base year: 2015 or later.
  - At least 2/3 of the scope 3 emissions.
  - 30 percent reduction with the ambition to halve scope 3 emissions by 2030 compared to the base year
  - The company presents how to achieve the goals
    - In cases where the company cannot show how the goals are to be achieved, the company must submit proposals for measures needed to achieve this and emphasize the importance of the Haga Initiative's general scope 3 requirements.

General climate policy demands

The Haga Initiative's ambition to halve emissions requires increased cooperation within the business community and between business and politics. Policy, both nationally and within the EU, must constantly increase the ambition and incentives to enable a profitable climate transition.

General climate demands on the business community

The more businesses setting climate goals and report transparently, the more it facilitates the work to reduce emissions scope 3. All companies should:

- set net-zero targets by 2050
- set intermediate goals leading towards the net-zero target
- report their climate impact transparently
- contribute to increasing climate ambitions in politics and business

External factors that affect emissions

Companies can largely influence their consumption of resources, but external factors can influence emissions to increase, despite efficiencies and can be explained by the fact that emission factors can vary from year to year. The variations can be due to several things, such as:

- Successive changes, such as technological advances by suppliers or political instruments, such as decisions regarding, for example, the reduction obligation for diesel that contribute to a lower emission factor.
- Temporary changes, such as colder winters that can contribute to district heating companies using fossil peak production or social functions that are knocked out and lead to changed logistics flows.

Results: Greenhouse gas emission disclosure 2022

The Haga Initiative's total emission reductions in 2022 are reported in absolute numbers compared to the companies' chosen base year.

The companies in the Haga Initiative are different, of which a few have their largest emissions in scope 1, but the majority have their largest emissions in scope 2 or scope 3. As a result, the companies have different resources and opportunities to influence emissions.

Many of the companies in the Haga Initiative are operating in growing markets, which makes it appropriate for some to set relative, rather than absolute, emission targets. It can therefore be difficult to compare the companies with each other. Many have set both relative and absolute targets for emission reductions. More about the companies' own objectives can be found on the respective company page.

Emission reductions in the Haga Initiative's 2030 target

The 2030 scope includes emissions in scope 1, 2, and 3.

- Scope 1: net zero emissions* (85 percent reduction compared to selected base year) or halving every decade.
- Scope 2: purchased energy must be renewable or recycled.
- Scope 3: reduce emissions by 30 percent with the ambition to halve by 2030, compared to the selected base year.

** The Haga Initiative's definition of net zero is under review.*

The total emissions for the collectives have been reduced by 20 percent compared to the companies' chosen base year and by 7 percent compared to 2021. Summed up for all companies, the emission reduction accounts for 12.6 million tons of CO_2e compared to the base year, and a reduction of 3.9 million tons of CO_2e compared to with 2021. Investment emissions for Folksam and Swedbank are excluded.

Compared to the companies' chosen base year, nine companies have reduced their emissions, while emissions have increased for two companies. The remaining two companies have 2022 as their base year and therefore lack a comparison.

In total, Preem accounts for the large emission reduction of 12.2 million tons of CO_2e compared to the base year and 4.1 million tons compared to 2021. Note, however, that within the framework of this emission reduction there are also emission reductions that took place the previous year but were not included in 2021's disclosure. Updated and more representative emission factors constitute the biggest underlying reason for reduction.

Compared to 2021, the collective's emissions would thus increase if it were not for Preem's reduction.

Two new companies are reported in the Haga Initiative's greenhouse gas disclosure this year, Swedbank and White. Three companies, JM, Preem and Stena Recycling, have chosen new base years. Coca-Cola Europacific Partners and McDonald's have approved 1.5-degree targets according to the Science Based Targets Initiative (SBTi), which are reported separately.

For the majority of the companies, emissions have increased between 2021 and 2022. However, looking from their base year to 2022, there is a decreasing trend. The increase in emissions for the companies may be due to a stabilization after the pandemic years. Several companies' scope 1 emissions decreased during the pandemic due to, among other things, reduced travel, which explains why emissions increased slightly when the pandemic years are over. The current world situation can also affect the increase in emissions. It is important to see each company page in the financial statements to gain an understanding of the emission reduction over time, as emissions can fluctuate from year to year.

The joint follow-up against the Haga Initiative's 2030 goals only concerns the scope 1 emissions. Note that the companies in the Haga Initiative are different; some of the companies are service companies and others are manufacturing companies, which contributes to differences in the magnitude of scope 1 emissions. The companies are thus difficult to compare with each other.

Companies' emissions in the value chain differ greatly based on industry and activity. The follow-up of scope 3 is done on the respective company page

Scope 1

Below, the companies' scope 1 emissions are reported compared to each company's base year, as well as compared to 2021 both in percentage and in tons of CO_2e.

It is difficult to compare the companies as they are different and operate in different markets. The reporting in scope 1 also does not reflect the companies' own target fulfillment.

All companies show a positive development towards the Haga Initiative's goals towards 2030 and reduce emissions compared to the respective base year. The overall trend is thus positive, which can be seen in figure 1 and 2.

Note that JM and Swedbank have 2022 as their base year, which explains why they report no emissions reduction. White has no emissions in scope 1 and explains why they do not report emission reductions in scope 1.

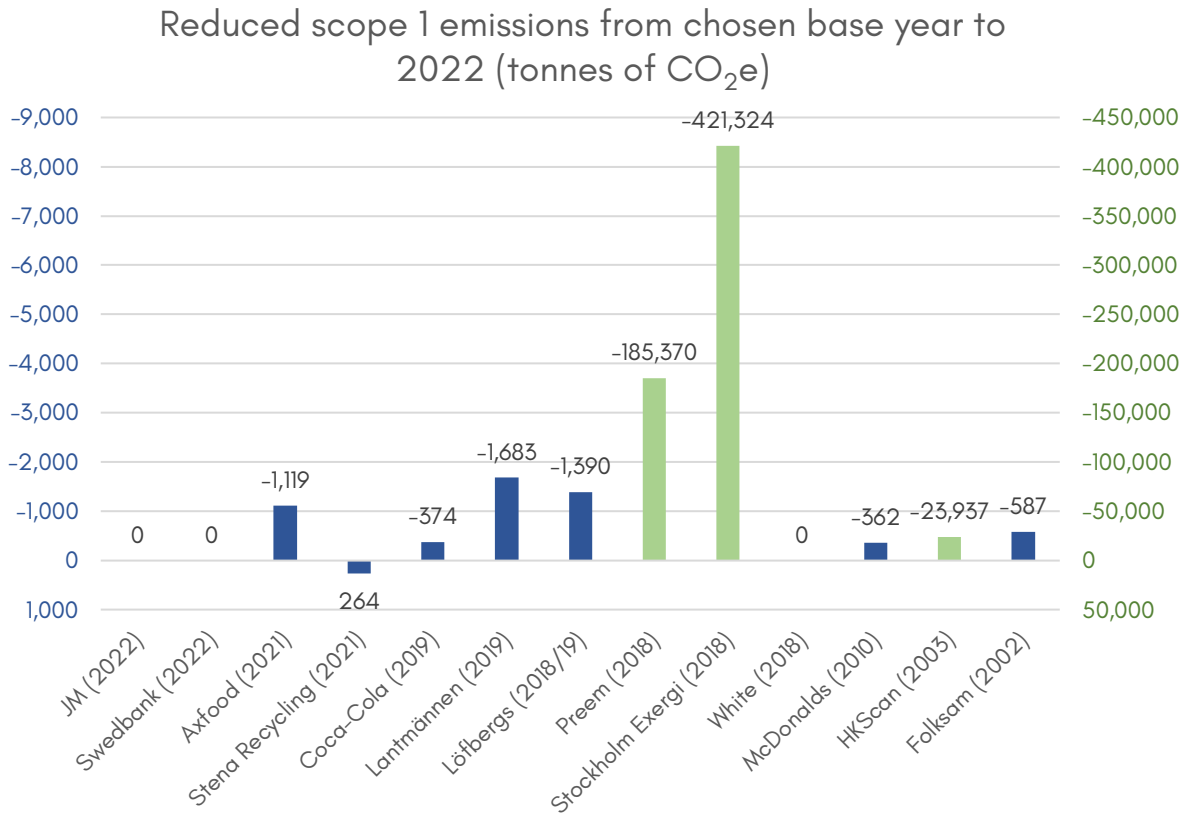


Figure 1. The companies' emission reductions in scope 1 in relation to the companies' respective base years. Note that green bars are read on the right axis.

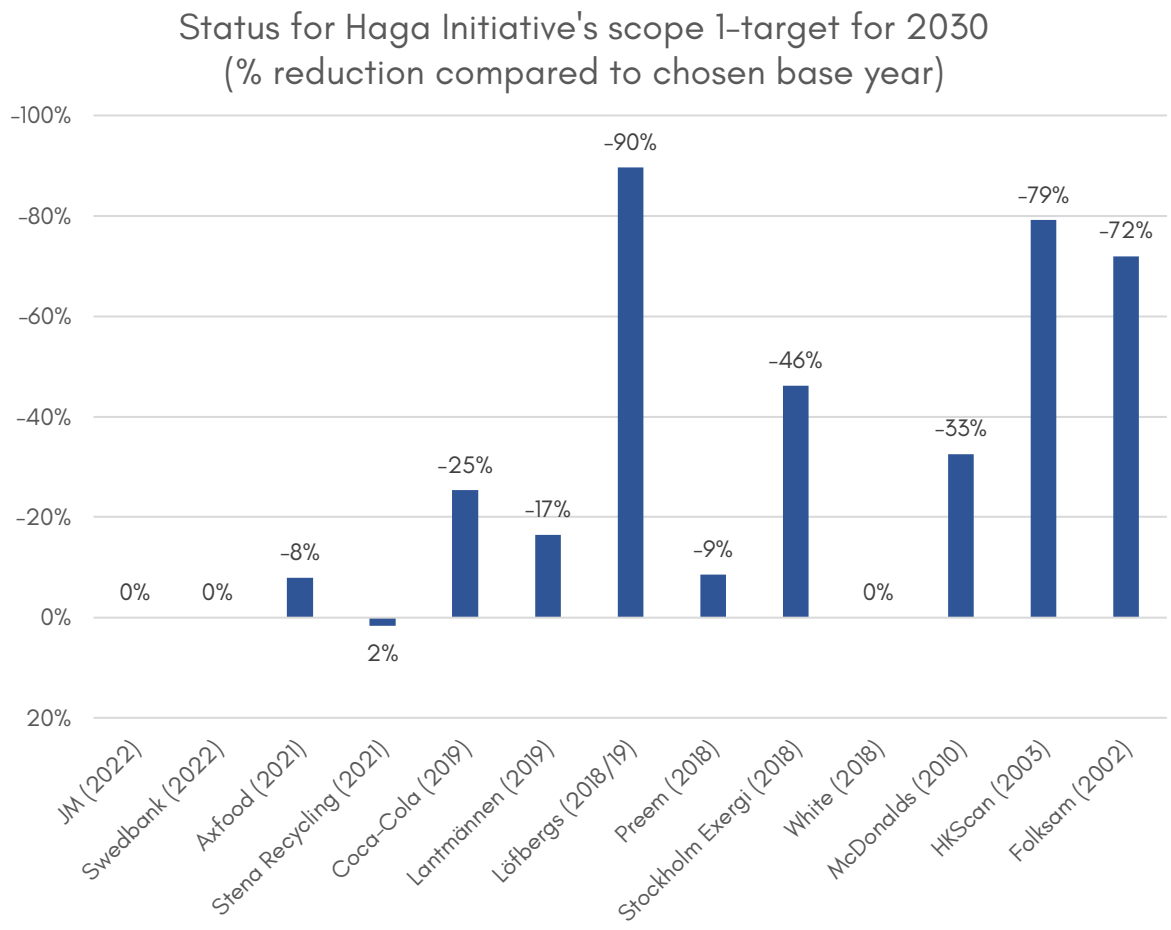


Figure 2. The companies' scope 1 emissions in 2022 in relation to the chosen base year. The Haga Initiative's 2030 target for scope 1 is for the emission to be reduced by at least 85 percent. Note that the companies have different base years.

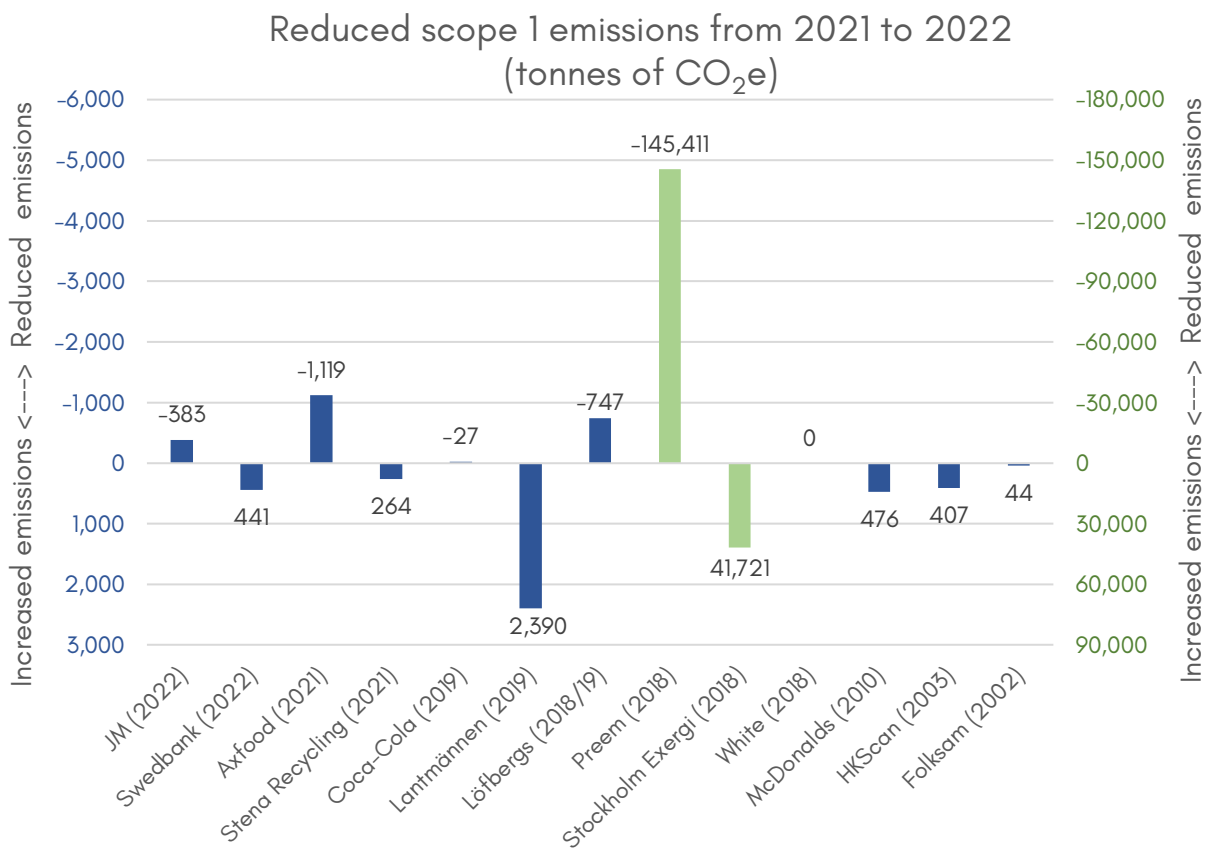


Figure 3. The companies' emission reductions in scope 1 in relation to the companies' respective base years. Note that green bars are read on the right axis and that upward bars show reduced emissions and downward bars show increased emissions.

Figure 2 shows that five out of thirteen companies reduced their emissions compared to 2021 in scope 1. Seven companies increased their emissions in scope 1 compared to 2021.

The increase of emissions compared to 2021 may be due to a stabilization after the pandemic years. Several companies' scope 1 emissions decreased during the pandemic due to, among other things, reduced travel, which explains why emissions increased slightly when the pandemic years are over. The current world situation can also affect the increase in emissions.

Biogenic emissions

According to the Greenhouse Gas Protocol and the national climate reporting, biogenic carbon dioxide emissions must be reported separately from fossil emissions.

Per company page, the companies' biogenic carbon dioxide emissions are reported in parallel with the fossil ones in scope 1. Note that only carbon dioxide emissions are reported, which is why the fossil carbon dioxide emissions in the table do not correspond to emissions of greenhouse gases expressed in CO_2e (carbon dioxide equivalents) in the respective companies' climate accounts. Also note that biogenic absorption of carbon dioxide is not reported in the table.

Emission reductions in scope 2

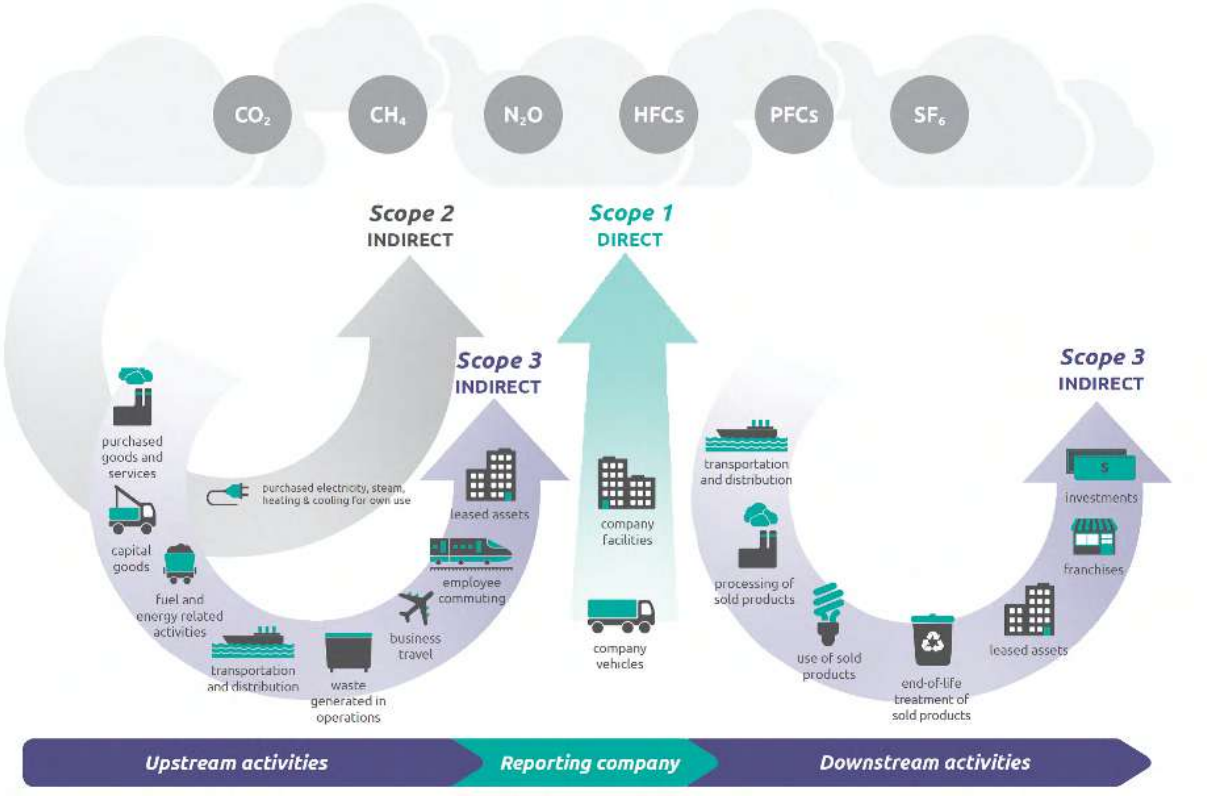
Calculation of emissions in scope 2 can, according to the GHG protocol, be done with the market-based or location-based method. The Haga initiative reports scope 2 emissions using the market-based method.

On each company page, the companies' emission reductions (tons of CO_2e) are reported using both methods. More about emissions in scope 2 is reported in appendix 2.

Scope 3

Scope 3 emissions consist of indirect emissions from the company's value chain that are owned or controlled by the company's organization, but which do not arise from its own operations, such as from suppliers, customers and use of products. Scope 3 consists of 15 categories that occur upstream and downstream in the value chain.

Since the Haga Initiative started in 2010, member companies have reported scope 3 emissions for business trips and in which scope 3 category each member company has its most significant emissions that are not reported in the climate statement. Last year, the Haga Initiative expanded scope 3 reporting with the first follow-up towards the 2030 goal, which means an increase in ambition by including emissions along the entire value chain. The ambition is to annually increase understanding of the value chain's climate impact and companies' opportunities, difficulties and responsibilities in the work to reduce these emissions.



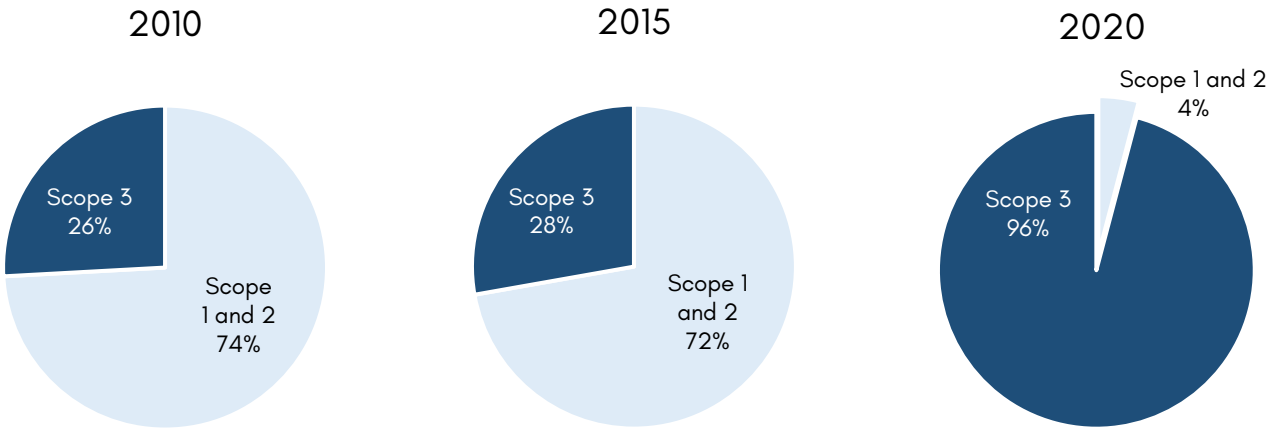
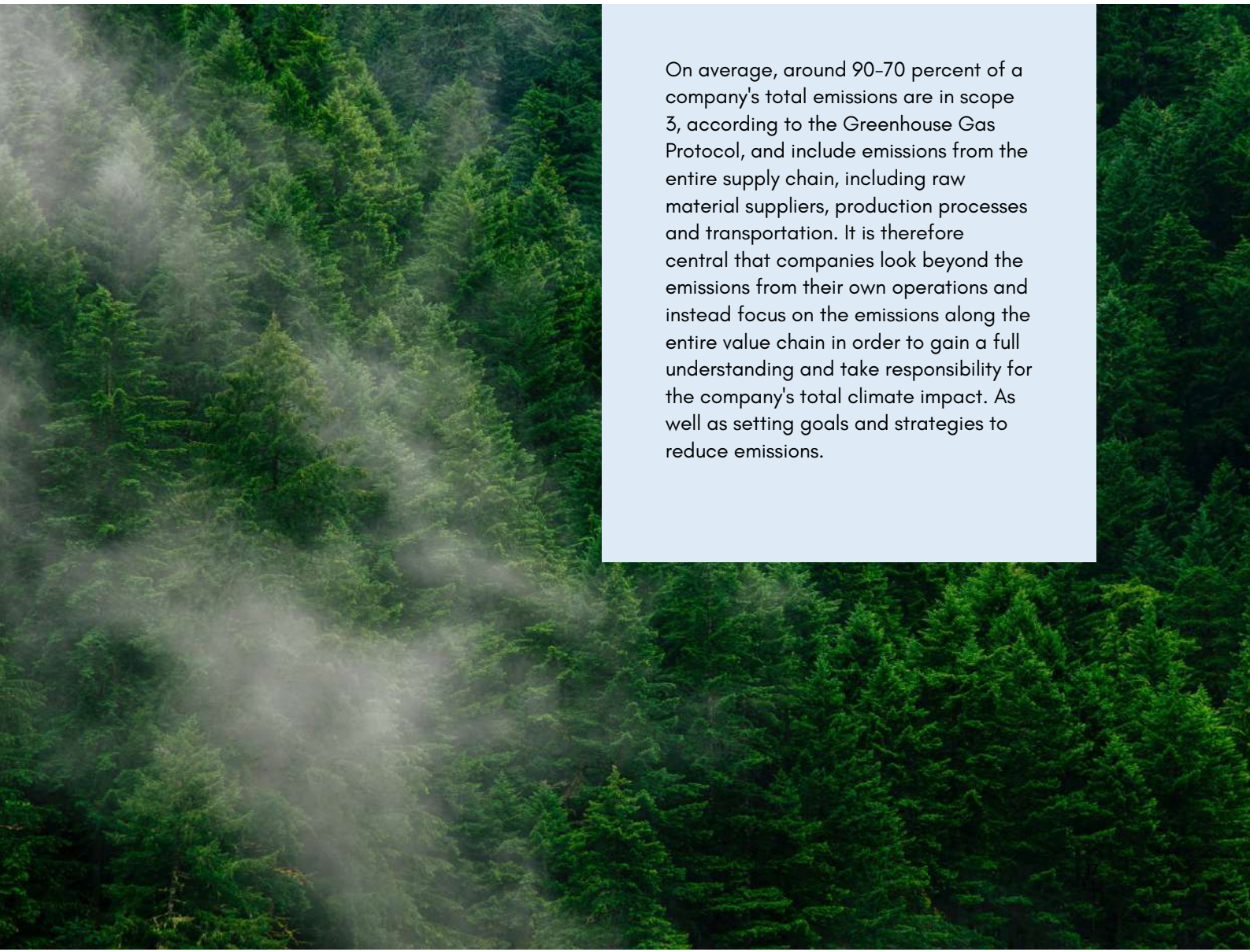


Figure 4. Since the Haga Initiative started to make climate disclosure, companies' emissions in scope 1 and 2 have decreased, at the same time the focus has also shifted from reporting scope 1 and 2 to expanding reporting more and more in scope 3. Since 2020, companies have increased scope 3 reporting, which is shown in the pie chart for 2020.



On average, around 90-70 percent of a company's total emissions are in scope 3, according to the Greenhouse Gas Protocol, and include emissions from the entire supply chain, including raw material suppliers, production processes and transportation. It is therefore central that companies look beyond the emissions from their own operations and instead focus on the emissions along the entire value chain in order to gain a full understanding and take responsibility for the company's total climate impact. As well as setting goals and strategies to reduce emissions.

The scope 3 challenge

Reporting scope 3 emissions can be a big challenge for companies, as it involves an extended collaboration with many different suppliers and the collection of data from a variety of sources. In some cases, the reduction of emissions requires long-term engagements with individual suppliers. The value chains for the member companies in the Haga Initiative look different for intermediaries of different sizes. For some companies, supply chain emissions are spread over hundreds of individual levels and suppliers from different countries around the world, which makes it difficult to access reliable data. They are also not static, as parts of the supplier base can change from year to year. A lack of common guidelines and legislation also makes it difficult for companies to measure and reduce their emissions along the entire value chain.

Scope 3 entails overlapping value chains between the companies and means that the scope 3 emissions of the member companies cannot be summed up to show a total emission. Scope 3 emissions are another company's scope 1 emissions. It is therefore important to reduce emissions in one's own value chain in order to influence the transition in the entire value chain in this way.

Scope 3 means increased collaboration

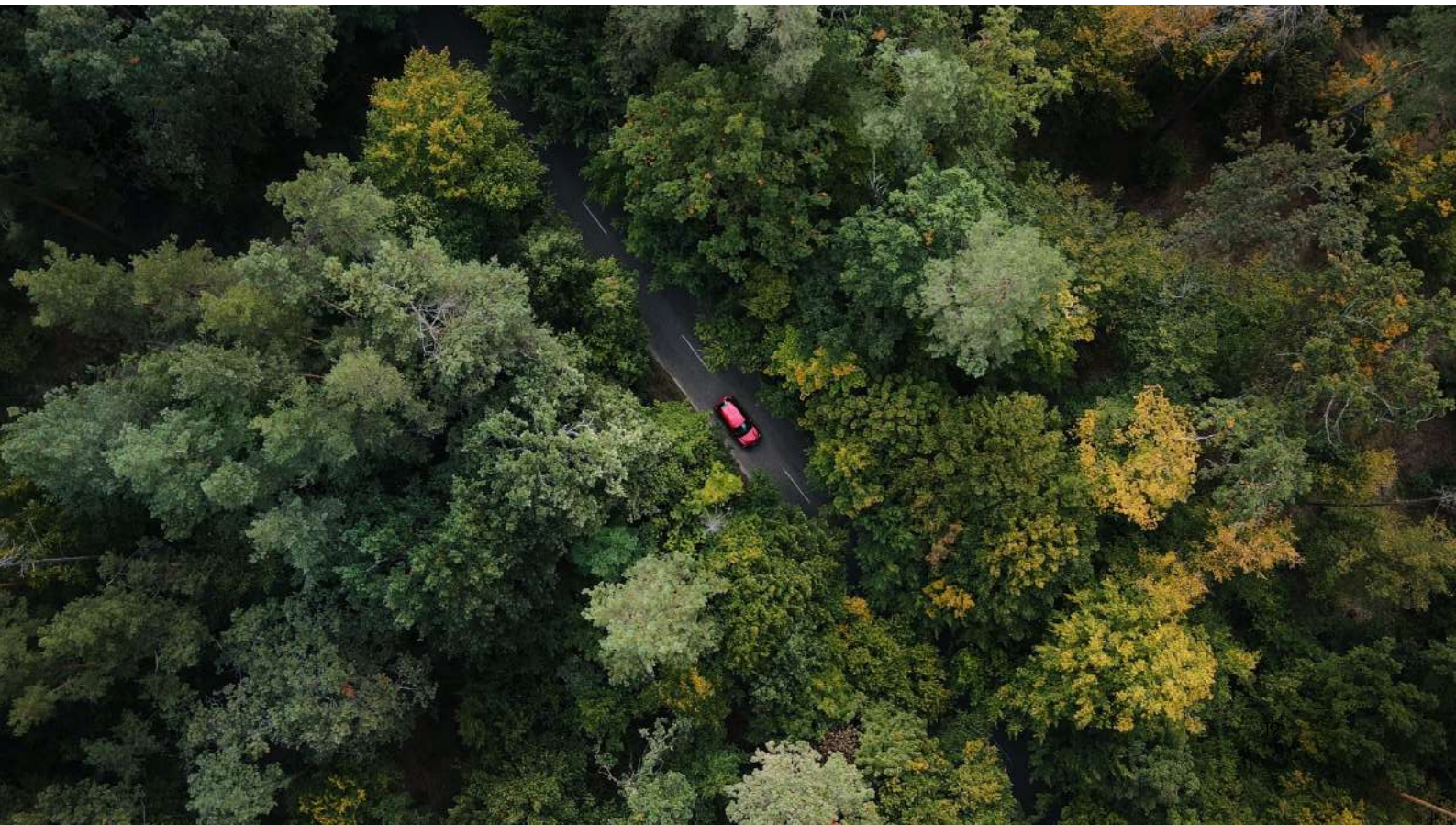
Companies cannot tackle emissions in the value chain alone – collaboration is the only way. Large companies have great opportunities to influence and drive value chains in the right direction, but this requires innovative thinking and increased collaboration. All companies face challenges, which extend all the way to the end consumer. All ranks need to be involved. The higher the ambitions and targets in the value chain, together with real reductions, the better for all companies.

Scope 1 and 2 are largely about restructuring one's own operations, while scope 3 is about restructuring the business. For the companies, this means a new approach that places demand on increased cooperation.

Great opportunities to include the entire value chain

Increased transparency around scope 3 emissions can help to identify risks and opportunities in their supply chain, such as potential supplier problems and new production alternatives. In addition, the scope 3 mapping can help the company improve its decision-making by giving the company's management and other stakeholders a better understanding of the company's overall climate impact.

Transparency is vital in companies' reporting and communication regarding scope 3 emissions. This is to avoid a company's climate performance appearing to be better than other equivalent actors who are open and transparent with their scope 3 emissions. The problem of not disclosing these emissions is significant. In case of difficulties in reporting the emissions along the entire value chain, companies can choose to describe and explain the order of magnitude of these emissions and highlight the challenges by explaining why they are difficult to measure. Increased knowledge about emissions contributes to an improved basis for how companies can reduce these emissions in different ways.



Haga Initiative's member companies increase scope 3 reporting

In this year's ghg emission disclosure, the Haga initiative takes another step forward in the work of reporting all three scopes in the value chain. Without claiming to report exact figures, an overall description of how the climate challenge is distributed in the value chain for the Haga initiative's member companies is reported. Under the company pages, the companies themselves have estimated how much of the value chain is reported, summarized in figure 5, and explain the difficulties that exist within the company and the industry which mean that the scope 3 emissions cannot be reported in full. This builds an understanding of the difficulties, but also opportunities that exist in developing the work with scope 3, which is largely about sharing the business responsibility in the value chain, in addition to focusing on own operations.

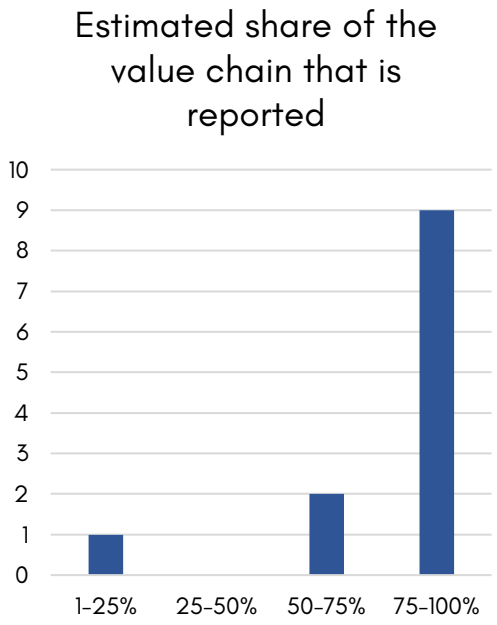


Figure 5. Summary of the companies' estimated share of the value chain reported.

The figure shows that a company estimates that 1-25 percent of the value chain is reported. Two companies estimate that 50-75 percent of the value chain is reported, and nine companies estimate that 75-100 percent of the value chain is reported. A company cannot provide an estimate.

Going forward: carbon capture and negative emissions

It is clear that the emission reductions will not be reached without complementary methods such as the capture of carbon dioxide and negative emissions. Certain emissions are difficult to phase out, and in order to reach Sweden's goal of net zero emissions and negative emissions, techniques are needed to compensate for the sectors that do not get rid of their emissions.

The measures, techniques and methods used to remove the emissions often aim to reach negative emissions, that is, the net absorption is greater than the emissions. Two main methods are used to remove the emissions;

1. **Natural processes** that remove carbon from the atmosphere (through, for example, changes in land use or restoration of wetlands), or
2. **Technical processes** that capture the carbon permanently and store it elsewhere (usually geologically in the bedrock or underground)

The Haga Initiative recognize that emission reductions are central to the transition, but that companies also need to work with carbon capture and negative emissions to meet the 1.5-degree target. Several of the Haga Initiative's member companies actively work with carbon capture and negative emissions. In the future, these measures may be included in the Haga Initiative's GHG disclosure.

Company pages

Axfood

Axfood's vision is to be the leader in affordable, good and sustainable food. Axfood's house of brands includes the store chains Willys and Hemköp, as well as Tempo and Handlar'n. Wholesale operates through Snabbgross and the support company Dagab is responsible for the group's product development, purchasing and logistics. The Axfood family also includes Middagsfrid and Urban Deli as well as part-owned Apohem, Eurocash, City Gross and Mathem. Together, the group has close to 13,000 employees and a turnover of just over SEK 73 billion. Approximately 4.5 million customers are reached each week.

Read more here www.axfood.com

Climate targets

Axfood shall have net-zero emissions for its own operations by 2030 at the latest, and emissions from, above all, its own transport continues to decrease. A new climate target for own operations indicates annual reductions of the climate impact per kilo of food sold through a changed sales mix.

The most dominant climate impact for the grocery trade occurs in scope 3, and many of Axfood's sustainability goals have a positive impact in scope 3, for example requirements that external haulers must be fossil-free by 2030 and that suppliers of private label goods must have net-zero emissions in their respective scopes 1 and 2 by 2030.

Official sustainability report

Annual and sustainability report 2022

Actions taken in 2022

- The climate-affecting emissions from Axfood's self-owned trucks are reducing. All 270 self-owned trucks can be driven fossil-free, and a 64-tonne truck crew for goods transport was put into use during the year.
- Electricity consumption in kWh per square meter in stores and warehouses continues to decrease.
- Work is underway for suppliers of private label goods to reach net-zero in scope 1 and 2 and to reduce emissions in scope 3.
- Efforts to reduce food waste in line with the halving target by 2025 with the help of digitalization, clearance sales and collaborations with charities.

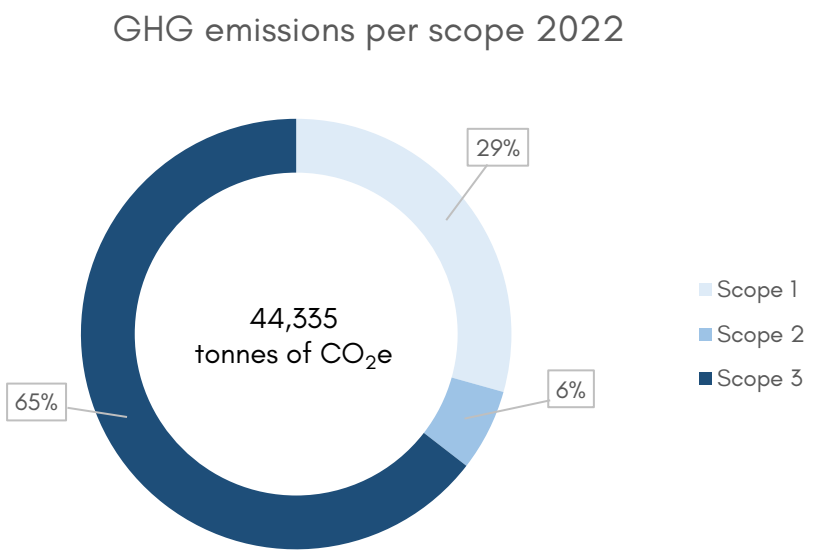


Figure 6. The figure discloses reported emissions per scope for 2022.

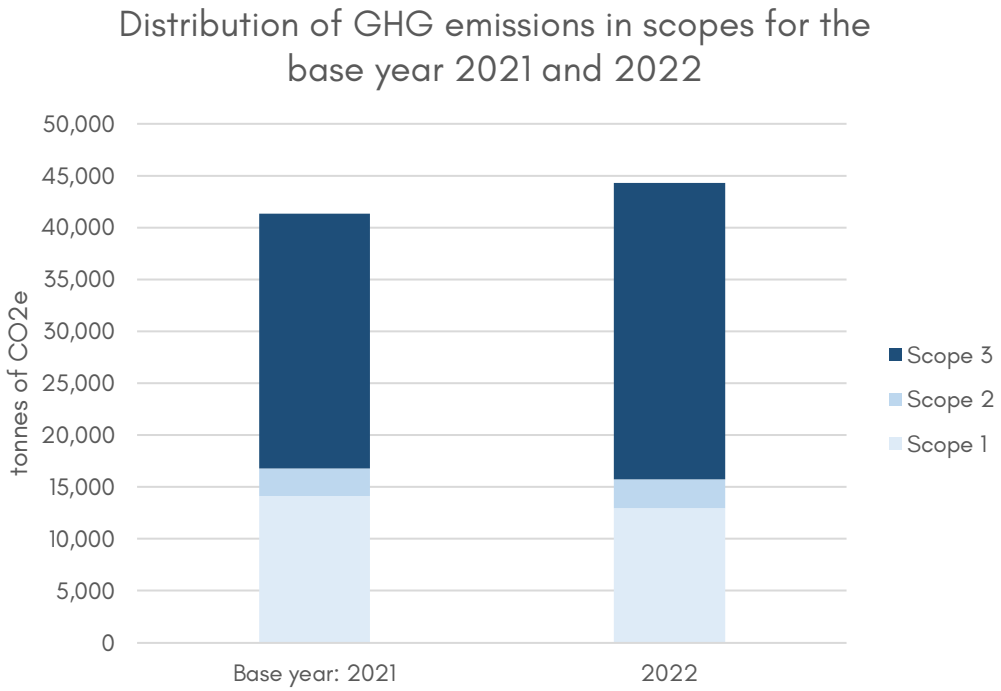


Figure 7. The figure discloses the distribution of scopes for the base year 2021 and 2022.

Table 1. Axfood's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year 2021	2022	Share of total 2022	Change 2021 - 2022
Scope 1	14,126	13,007	29%	-8%
Refrigerants	2,979	2,986	7%	0%
Own transports	10,928	9,663	22%	-12%
Own cars	219	357	1%	63%
Scope 2[1]	2,677	2,725	6%	2%
Electricity	2,520	2,566	6%	2%
Distict heating	157	159	0%	1%
Scope 3	24,532	28,603	65%	17%
3.3 Fuel- and energy-related emissions	2,923	2,957	7%	1%
3.4 Purchased transports and other upstream transports[2]	21,007	24,787	56%	18%
3.5 Waste management[3]	477	463	1%	-3%
3.6 Business travel[4]	125	397	1%	217%
TOTAL (excl. carbon offsets)	41,335	44,335	100%	7%
Carbon offsets[5]	-104		-	
TOTAL (incl. carbon offsets)	41,231	44,335	100%	8%

Key indicators	Unit	Base year 2021	2022	Change 2021 - 2022
Total emissions per revenue (excl. carbon offsets)	tonnes of CO_2e/MSEK	0.7	0.6	-14%
Total emissions per employee (excl. carbon offsets)	tonnes of CO_2e/employee	3.4	3.5	+2%

1) Scope 2 is disclosed using the market-based method.
2) Transport from warehouse to store.
3) Waste from warehouses and stores where Axfood is the contract owner.
4) Air travel, train travel, hotel stays and taxi.
5) Business-related air travel.

Scope 1

In the table below, Axfood's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	10,020
Direct biogenic CO_2 emissions	5,531

Scope 2

The table below displays Axfood's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	2,725
Location-based method	19,963

Axfood's value chain

Axfood's value chain includes several different stages and ranges from primary production, with breeding and rearing of animals, via suppliers and subcontractors who handle everything from processing to packaging, to own warehouses and stores that handle the thousands of goods included in the range. At the end of the chain is the 4.5 million consumers who e-shop or visit one of the group's hundreds of stores every week.

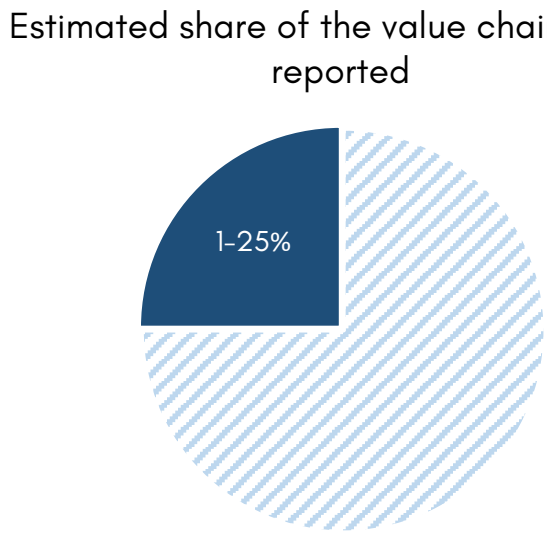


Figure 8. The figure displays the company's estimate of how much of the value chain that is included in the reporting

Table 2. Axfood´s estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e)	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services						
	2. Capital goods						
	3. Fuel- and energy-related activities	2,957					
	4. Upstream transportation and distribution	24,787					
	5. Waste generated in operations	463					
	6. Business travel	397					
	7. Employee commuting						
	8. Upstream leased assets						
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products						
	11. Use of sold products						
	12. End-of-life treatment of sold products						
	13. Downstream leased assets						
	14. Franchises						
	15. Investments						
	TOTAL	28,603					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

Emissions from primary production constitute Axfood's most dominant source of emissions in scope 3. Emissions from agriculture consist partly of direct and indirect use of fossil inputs, and partly of large emissions from land and animals in the form of carbon dioxide, methane and nitrous oxide. Currently, Axfood internally follow up the climate impact from sold food with the support of standardized data from RISE. Climate reporting is deemed to be able to be deepened and improved in the future in consultation with the group's auditors.

The company's scope target

There is no overall scope 3 target that measures climate-affecting greenhouse gases in absolute numbers. However, several targets contribute to reduced climate emissions.

The company shows how the target is achieved

All suppliers of own-brand goods must have net-zero emissions by 2030, and external haulage from Dagab's logistics operations to any of Axfood's store chains must be fossil-free by 2030. Increased sales of sustainability-labeled goods, halving food waste, reducing plastic and using renewable and recycled raw materials also contribute. In addition, Axfood has produced its own proposal for a food strategy (Food 2030) for a more sustainable food system.

Analysis and comments

In 2021, Axfood included more emission sources and data than in previous accounts; waste, hired transports to warehouses and shops and additional warehouse units, which affects comparability from years earlier than 2021. For 2022, however, no changes in scope have been made, which is why the base year 2021 and 2022 are comparable.

Emissions in scope 1 decreased by 8 percent, which was mainly due to reduced emissions from own transport thanks to an increased share of non-fossil fuels. For refrigerators and freezers, work is underway to gradually replace them with refrigerants with lower, or no, climate impact. Emissions from company cars increased compared to 2021 as a result of increased travel following the easing of pandemic restrictions, although the level is significantly lower than before the pandemic.

The emissions in scope 2 account for most of the purchased electricity for smaller warehouses that are not included in Axfood's central electricity agreement for fossil-free electricity. The increase in emissions between 2021 and 2022 is due to a slightly increased emission factor for the Nordic residual mix. With an unchanged emission factor for the Nordic residual mix, Axfood's scope 2 emissions would have been unchanged.

Scope 3 emissions increase by 17 percent compared to 2021. This is primarily due to increased emissions for purchased transports and business trips. The reason behind the increase in emissions from purchased transports is increased growth and thus a greater need for transports. The increase in business travel emissions, mainly from air travel, is due to, in the same way as for car travel, that emissions for 2021 were unusually low due to pandemic restrictions. Emissions from business travel are also significantly lower in 2022 than before the pandemic; approximately 45 percent lower than in 2019.

Emissions from primary production constitute Axfood's most significant source of emissions in scope 3. As reliable and quality-assured data is lacking, emissions from primary production are not reported.

Coca-Cola Europacific Partners Sverige AB (CCEP SE) is part of Coca-Cola Europacific Partners (CCEP) which is present in 29 countries in Europe, Oceania and Asia. CCEP SE produces, distributes and sells non-alcoholic beverages on the Swedish market. Some of the brands are Coca-Cola®, Fanta®, Sprite®, MER®, Bonaqua®, Powerade®, fuzetea® and Monster®. CCEP SE has approximately 750 permanent employees and a turnover of SEK 4,980 million (2022). CCEP SE produces approximately 1.5 million liters of beverage daily. Production takes place at CCEP's facility in Jordbro, which since 2021 has been certified climate neutral according to PAS 2060.

Read more here www.ccep.com or www.coca-cola.se.

Climate targets

In December 2020, CCEP launched a group-wide climate strategy, Action on Climate Now, with the goal of achieving net zero emissions of greenhouse gases in the entire value chain by 2040. A partial goal of the new climate strategy is to reduce the absolute emissions of greenhouse gases in scope 1, 2 and 3 by 2030 (base year 2019) by 30 percent, then reaching net zero by 2040. The 2030 target has been approved by the Science Based Targets Initiative (SBTi) to be in line with the 1.5-degree target and the Paris Agreement.

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Actions taken in 2022

- Shifted the entire locally produced PET portfolio to 100 percent recycled plastic and reduced its climate impact by 25 percent.
- Uses 100 percent fossil-free fuel in all procured domestic transport since 2022 and introduces electric trucks in 2023.
- Has reduced the energy consumption per refrigerator equipment by an average of 57.5 percent since 2010.
- By reducing the sugar in the drinks, the climate impact is reduced. Sugar-free accounts for almost half of sales in 2022. In 2010, it was 17 percent.

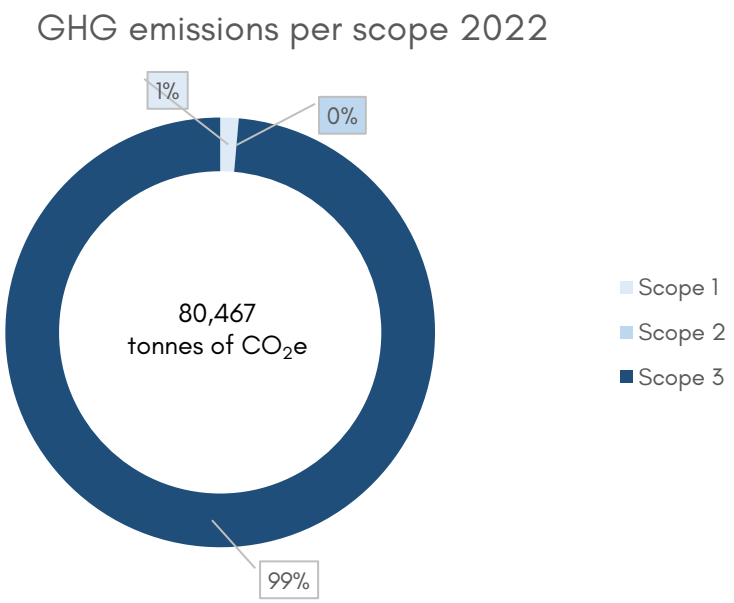

Figure 9. The figure disclose reported emissions per scope for 2022.

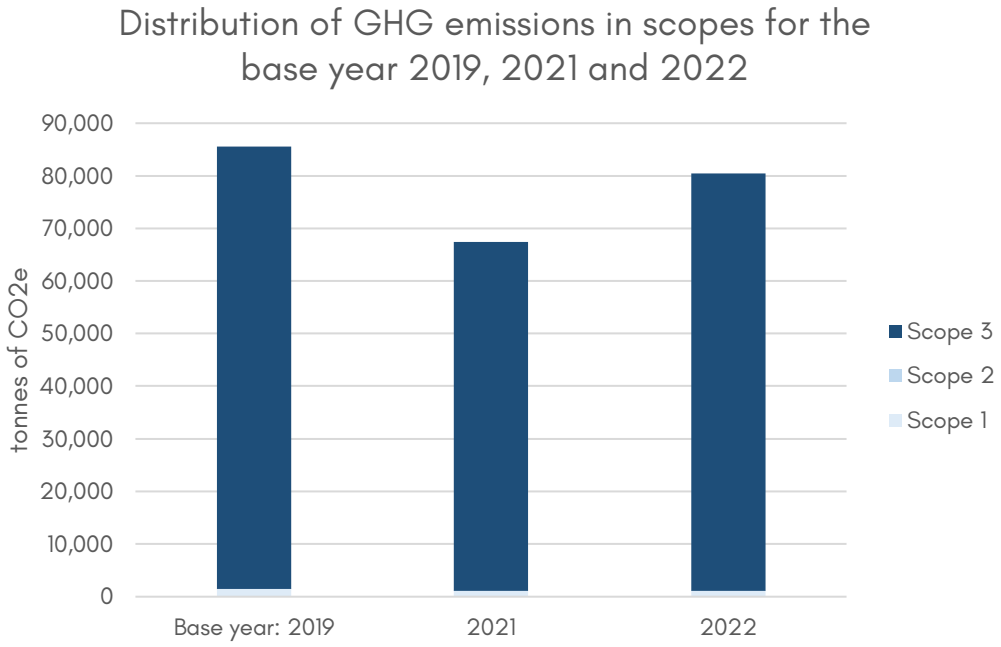

Figure 10. The figure disclose the distribution of scopes for the base year 2019, 2021 and 2022.

Table 3. CCEP's emissions 2022

GHG emissions (tonnes of CO_2e)	Base year 2019	2021	2022	Share of total 2022	Change 2019 - 2022
Scope 1	1,475	1,128	1,101	1%	-25%
Scope 2[1]	9	4	12	0%	33%
Electricity	0	0	0	-	-
Distict heating	9	4	12	0%	33%
Scope 3	84,086	66,283	79,354	99%	-6%
3.1 Purchased goods and services	77,225	62,633	75,939	94%	-2%
3.3 Fuel- and energy-related emissions	685	664	661	1%	-4%
3.4 Purchased transports and other upstream transports	3,162	536	543	1%	-83%
3.5 Waste management	189	104	112	0%	-41%
3.6 Business travel	393	16	119	0%	-70%
3.8 Upstream leased assets	1	1	1	0%	0%
3.12 End-of-life treatment of sold products	780	910	1,003	1%	29%
3.13. Downstream leased assets	1,651	1,419	976	1%	-41%
TOTAL (excl. carbon offsets)	85,570	67,415	80,467	100%	-6%
TOTAL (excl. carbon offsets)	85,570	67,415	80,467	100%	-6%

Key indicators	Base year 2019	2021	2022	Change 2019-2022	Unit
GHG emissions per liter of beverage	234	171	203	-13%	gCO_2e/liter

1) Scope 2 is disclosed using the market-based method.

Scope 1

In the table below, CCEP's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	1,101
Direct biogenic CO_2 emissions [1]	-

1) Not disclosed because of lack of data.

Scope 2

The table below displays CCEP's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	12
Location-based method	202

Coca-Cola Europacific Partner's value chain

To produce, sell and distribute beverages, CCEP depends on a stable supply of high-quality ingredients and raw materials. The supply chain is global, but ingredients and raw materials are purchased as locally as possible. To reduce emissions within scope 3, CCEP works closely with the strategic suppliers. By 2023 at the latest, 100 percent of CCEP's strategic suppliers must set science-based reduction targets, use 100 percent renewable electricity and share data for their greenhouse gas emissions with CCEP. In 2022, CCEP globally introduced a new sustainability-linked supply chain financing program. The program, which is one of the first of its kind in the global beverage industry, encourages and rewards suppliers for making sustainability improvements in their operations.

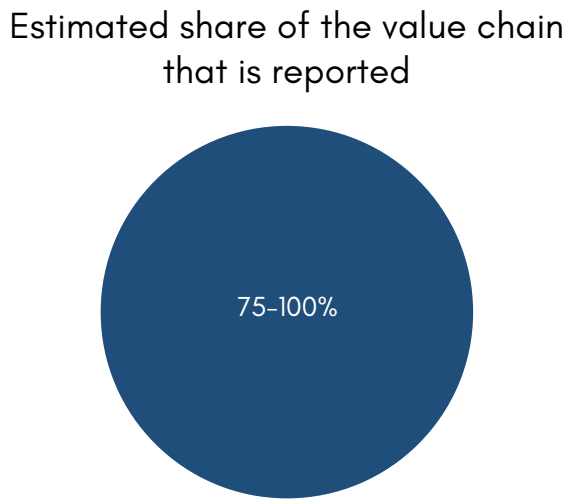

Figure 11. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Tablel 4. CCEP's estimated emissions in the value chain, broken down by category

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	75,939					
	2. Capital goods						
	3. Fuel- and energy-related activities	661					
	4. Upstream transportation and distribution	543					
	5. Waste generated in operations	112					
	6. Business travel	119					
	7. Employee commuting						
	8. Upstream leased assets	1					
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products						
	11. Use of sold products						
	12. End-of-life treatment of sold products	1,003					
	13. Downstream leased assets	976					
	14. Franchises						
	15. Investments						
	TOTAL	79,354					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

CCEP reports a complete breakdown of emissions across the 15 scope 3 categories.

The company's scope 3 target

The CCEP has an SBTi-approved target of reducing scope 1, 2 and 3 emissions by 30 percent by 2030. The target includes a commitment to reduce scope 1 and 2 greenhouse gas emissions by 47 percent and scope 3 emissions by 29 percent to 2030 (base year 2019).

The company shows how the target is achieved

CEP reports annually according to the Greenhouse Gas Protocol

Analysis and comments

Coca-Cola Europacific Partner has an overall climate target, which is approved by the Science Based Target Initiative. When the Swedish operations, which are reported in climate disclosure, are compared with the base year of the climate target, 2019, it appears that emissions have decreased in scope 1 (-25%) and scope 3 (-6%), while emissions have increased in percentage in scope 2 (+ 33%) but at a very low level. Emissions from transports have decreased by 83 percent since 2019 thanks to a switch from fossil diesel to HVO.

The key indicator, emissions per liter of beverage produced, has decreased by 13 percent since the base year 2019.

Folksam

Folksam consist of a Life and General concern with subsidiaries. Folksam creates security in all aspects of life. Almost every second person in Sweden is insured by the Folksam group and over three million people save with Folksam for their pension. Folksam is customer-owned, the profit goes back to the customers in the form of bonuses, premium reductions or better services, offers and customer service. Folksam has approximately 3,800 employees and managed approximately SEK 526 billion at the end of 2022.

Read more here www.folksam.se

Climate targets

Folksam has targets for net-zero emissions of greenhouse gases in its operations by 2030 and in the investment portfolios by 2050. In 2021, sub-targets for 2025 were also presented for the investment portfolios. The goals mean that the climate footprint from equities, corporate bonds, and real estate shall be reduced by 29 percent and that a larger proportion of the portfolios' largest emitters will adopt scientifically based climate targets. In addition, the goals mean that in the coming years Folksam shall work to increase the range of green investment alternatives on the market, including through dialogues with issuers.

Moreover, Folksam works with circular claims settlement with the target to reduce carbon dioxide emissions.

Actions taken in 2022

- The climate target for 2025 shall primarily be reached through advocacy activities aimed at existing holdings. The Folksam group is working to ensure that at least 50 percent of the largest emitters in the group's investment portfolio adopt scientifically based climate targets by 2025. In the fall of 2021 and in 2022, Folksam has conducted advocacy dialogues with roughly 30 of the largest emitters in the group's portfolios.
- During the year, Folksamgruppen invested approx. SEK 50 million in various energy projects, including a geostorage, to reduce energy use in the properties.
- During 2022, Folksam continued its work on improving processes and setting goals for a circular claims settlement.

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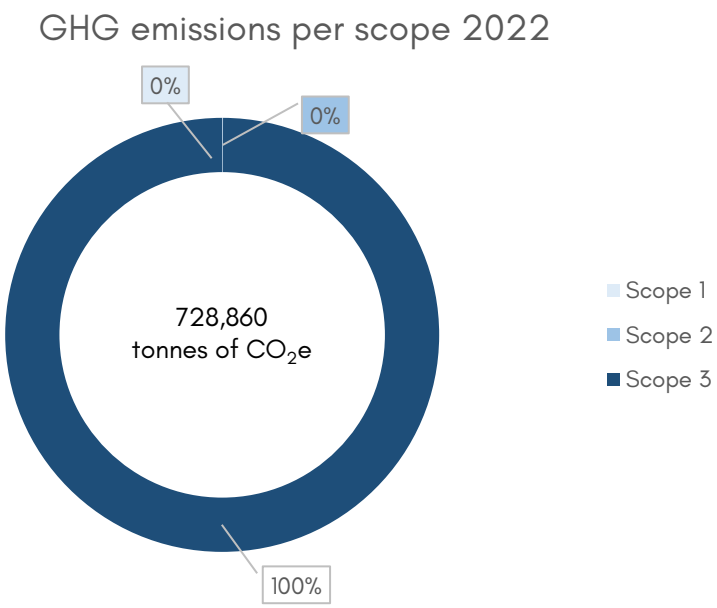


Figure 12. The figure displays the emissions in 2022 distributed per scope with the extent reported.

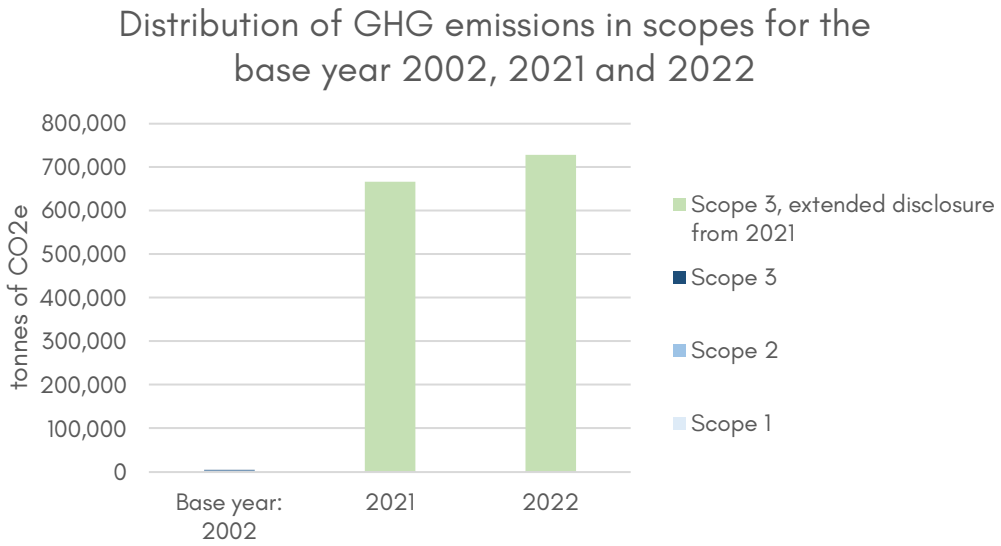


Figure 13. The figure disclose the distribution of scopes for the base year 2002, 2021 and 2022.

Table 5. Folksam's emissions 2022

GHG emissions (tonnes of CO_2e)	Base year 2002	2021	2022	Share of total 2022	Change 2002 - 2022
Scope 1	816	185	229	0.031%	-72%
Refrigerants	43	75	67	0.009%	+56%
Own cars	773	110	162	0.022%	-79%
Scope 2 [1]	2,324	284	232	0.032%	-90%
Electricity	-	2	2	0.000%	-
Distict heating	-	282	230	0.032%	-
Scope 3 (scope of base year)	1,291	182	481	0.066%	-63%
3.1 Purchased goods and services [2]	186	84	108	0.015%	-42%
3.3 Fuel- and energy-related emissions	0	65	75	0.010%	-
3.6 Business travel [3]	1,105	33	298	0.041%	-73%
Extented scope 3 disclosure	-	665,442	727,918	99.871%	-
3.15 Investments [4]	-	665,442	727,918	99.871%	-
TOTAL (scope of base year)	4,431	651	942	0.129%	-79%
TOTAL (scope of 2022)	4,431	666,093	728,860	100%	
Carbon offsets [5]	0	-5,141			
TOTAL (incl. carbon offsets)	4,431	660,952	728,860		

Key indicators	Unit	Base year 2002	2021	2022	Change 2002-2022
Emissions per employee excluding carbon offset [6]	tonnes of CO_2e/employee	1.20	0.18	0.28	-77%
Emissions per employee including carbon offset	tonnes of CO_2e/employee	1.20	0.00	0.00	-100%

1) Scope 2 is disclosed using the market-based method.
2) Office supplies and consumables.
3) Air travel, train travel and taxi.
4) Includes portfolios of stocks and real estate.
5) In addition to all emissions according to the extent of the base year, emissions from the directly owned property portfolio (heating, property electricity, cooling and water) are also reported.
6) Scope of base year.

Scope 1

In the table below, Folksam's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Type of carbon dioxide emissions	Scope 1 (tCO_2e)
Fossil carbon dioxide emissions (tons of CO_2e), scope 1	162
Biogenic carbon dioxide emissions (tons of CO_2), gross	0.08

Scope 2

The table below displays Folksam's emissions in scope 2 for both the market-based method and the location-based method.

Calculation method	Scope 2 (tCO_2e)
Market-based method	232
Location-based method	567

Folksam's value chain

Emissions from Folksam's investment operations are the company's most significant emissions in scope 3. In non-life insurance operations, claims settlement, where Folksam regulates customers' damaged cars, houses, and belongings, also means significant scope 3 emissions.

Together with some of the world's largest pension and insurance companies, the Folksam group has taken the Initiative for the UN-Convened Net-Zero Asset Owner Alliance, the Nettonoll Alliance. The alliance brings together some of the world's largest capital owners with the common goal that our investment portfolios will show net-zero emissions of greenhouse gases by 2050.

In 2022, Folksam carried out a scope 3 screening to map the order of magnitude of all categories within scope 3.

Table 6. Folksam's estimated emissions in the value chain, broken down by category

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e)	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	108.0	Paper and printed products: 32 Coffee: 75 Water: 1	Other goods and services are not disclosed.	<1%	These are activities that are close to business and have been disclosed since many years.	98 %. Some of the water consumption is estimated.
	2. Capital goods						
	3. Fuel- and energy-related activities	74.94	Upstream emissions for wind power: 74 Upstream emissions from electric- and diesel cars: 0,94	Upstream emissions for district heating are not disclosed.	Lack of data.	Lack of data.	100%
	4. Upstream transportation and distribution						
	5. Waste generated in operations						
	6. Business travel	298.4	Air travel: 292 Train travel: 0,42 Taxi: 6	Any travel with bus or rented cars are excluded.	100%		100%
	7. Employee commuting						
	8. Upstream leased assets						
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products						
	11. Use of sold products						
	12. End-of-life treatment of sold products						
	13. Downstream leased assets						
	14. Franchises						
	15. Investments	727,918.0	Stock portfolio: 723 000 Directly owned property portfolio: property electricity: 327 Heating: 3 569 Water: 79	Stock portfolio and directly owned property portfolio.	Lack of data.		
	TOTAL	728,399					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

Folksam's scope 3 reporting currently includes the property and investment portfolio as well as purchased goods and services. Fund management, interest-bearing and special investments as well as other managed capital in the pension foundation are excluded. The reporting partially includes the carbon footprint of the claims settlement process but is not complete. This is due to a lack of data and technical conditions for systematically measuring material flows.

In Folksam's scope 3 screening, carried out in 2022, presented that over 90 percent of the carbon footprint is made up of the investment portfolio. Within the remaining ten percent, claims settlement and the purchase of goods and services are included. As data from a large part of the claims settlement process is missing, there is still uncertainty about the exact scope of the footprint from the claims business.

The reporting of scope 3 consists of data based on actual data, estimates, and assumptions and which entails a measure of difference in quality and accuracy. Actual data is used as much as possible, but the lack of data points means that estimates are also used instead of having to completely exclude significant emission sources from the result.

The company's scope 3 target

Folksam's goal is to reduce its emissions by 29 percent in the investment portfolios by 2025 and to reach net-zero emissions by 2050.

The company shows how the target is achieved

In 2021, the Folksam group presented new climate targets for 2025 for the investment portfolios. The goals mean, among other things, that the climate footprint from shares, corporate bonds and real estate shall be reduced by 29 percent.

The climate goals and the overall work within the Net Zero Alliance include a stated ambition to reduce emissions of greenhouse gases in the real economy. To achieve this, the Folksam group plans to try to influence the companies they own to take greater responsibility for climate change. By 2025, the goal is for at least 50 percent of the 86 largest emitters in the Folksam group's investment portfolios to have adopted scientifically based climate goals. In addition, the Folksam group has adopted new goals to promote the availability of green investments.

Read more in the Folksam group's Annual and sustainability report 2022.

Analysis and comments

Folksam's emissions (excluding category 3.15 Investments) have decreased by 79 percent since the base year of 2002. Since last year, however, emissions have increased by 45 percent.

In scope 1, emissions have increased by 24 percent since last year. This is explained by the fact that car travel was low caused by the pandemic in 2021. Compared to 2019, which was the last year before the pandemic, the emission from car travel, in scope 1, has decreased by 61 percent and the entire scope 1 has decreased by 53 percent. Since the base year of 2002, scope 1 emissions have decreased by 72 percent.

The Scope 2 emissions has not been affected in the same way. Here, the emission for district heating has been able to be further reduced since the previous year by 18 percent and since the base year 2022 by 90 percent.

In scope 3, excluding investments, emissions have increased by 164 percent since 2021. Here, too, this is largely due to pandemic restrictions in 2021, which is most clearly felt for business trips, mainly by air, where emissions have increased ninefold. Of the increased emissions in scope 3, business travel accounts for 90%. In the same way as for car journeys, there is reason to compare with 2019. Compared to 2019, scope 3 emissions have decreased by 35 percent and it is mainly explained by business travel with a reduction of 43 percent which contribute to 85 percent of the reduction in scope 3.

Overall, Folksam has greatly reduced emissions since the base year of 2002; 79 percent, but also compared to 2019; 44 percent. The pandemic restrictions affected emissions sharply downwards for both 2020 and 2021. As business travel, which was most affected by pandemic restrictions, constitutes such a large part of Folksam's emissions, it is natural for a certain rise in emissions between 2021 and 2022.

Emissions for Folksam's investment holdings have increased by 9 percent compared to 2021, when it was reported for the first time.

HKSCAN

HKScan Sweden was founded in Halmstad in 1899 and is part of the HKScan Group, one of northern Europe's biggest food companies. The company has a turnover of SEK 8.3 billion and, through 1,815 employees, manufactures tasty and responsibly produced high-quality foods from beef, poultry, lamb and vegetarian products under brands such as Scan and Pärsons. Customers include the retail, food service, industrial and export sectors. For HKScan, responsibility means continuous development and concrete efforts throughout the entire value chain in terms of climate and environment, healthy food, animal welfare as well as ensuring a safe work environment and wellbeing among our employees.

Read more here www.hkscan.com

Climate targets

HKScan Sweden has a climate target of reaching net-zero climate emissions by 2025, compared with 2003. The target is set in absolute numbers and includes emissions in scope 1 and scope 2 as well as business travel. By 2025, all transports within the company shall be fossil-free.

By 2040, HKScan shall achieve net-zero climate emissions in the entire value chain from farm-to-fork. As an intermediate goal, the company shall reduce climate emissions from meat by 20 percent by 2030, increase areas that benefit biodiversity by 5 percent and reduce eutrophication by 20 percent, as an average for all its suppliers of meat (base year 2019).

Actions taken in 2022

- Roadmap packaging: to reach the goal of 100 percent recyclable packaging by 2025, a roadmap for gradually convert to recyclable packaging has been developed and implementation has begun.
- Gårdsinitiativet: More farmers have joined Gårdsinitiativet (the Farm Initiative) – an initiative to create commitment and support farmers in developing their businesses both financially and environmentally. During the year, much focus has been on resource and energy efficiency on the farms.
- New tool for climate data on farms: HKScan has become a partner in Agronod, which is developing a new data platform for agriculture. This data tool will facilitate the work of identifying, measuring, and evaluating efforts on the farm with the goal of reducing the climate footprint and increasing the environmental benefits for profitable Swedish agriculture.

Official sustainability report

Annual and sustainability report 2022

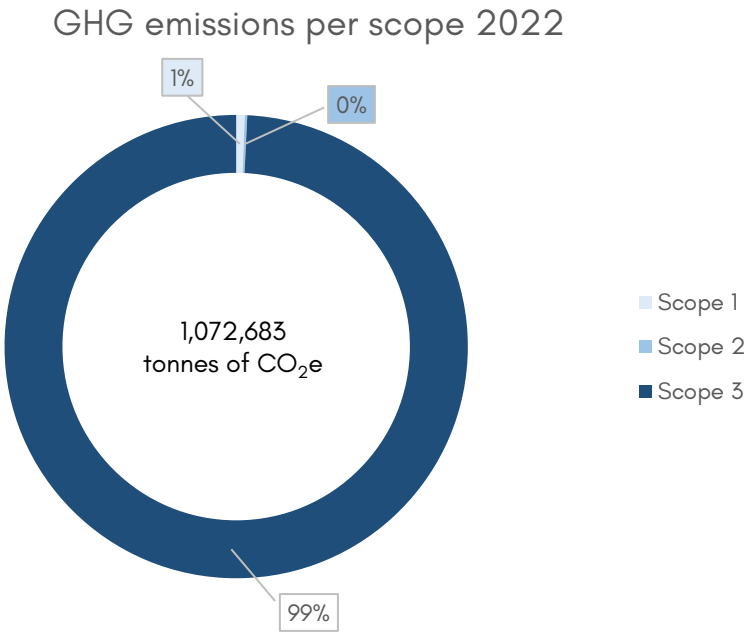


Figure 14. The figure displays the emissions in 2022 distributed per scope with the extent reported.

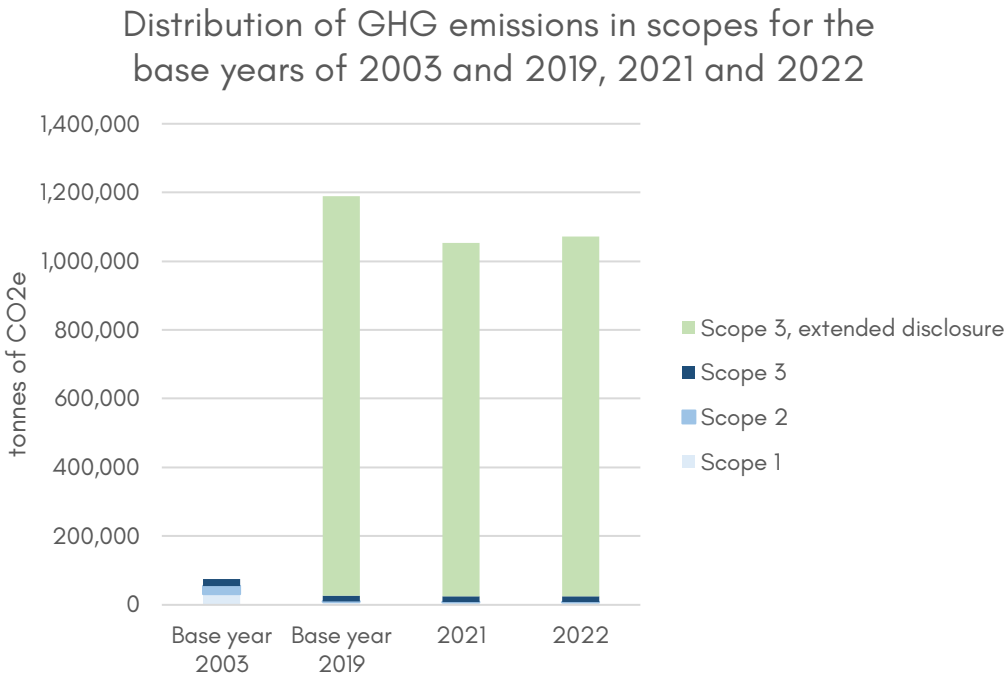


Figure 15. The figure discloses the distribution of scopes for the base years of 2003 and 2019, 2021 and 2022.

Table 7. HKScan's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year: 2003	Base year: 2019	2021	2022	Share of total 2022	Change base year - 2022[6]
Scope 1	30,242	7,735	5,898	6,305	0.6%	-79%
Own heating	22,334	5,064	2,563	2,593	0.2%	-88%
Refrigerants	0	146	12	360	0.0%	-
Own transports	2,965	104	76	80	0.0%	-97%
Own cars	1,596	727	464	606	0.1%	-62%
Carbon dioxide in production[1]	3,347	1,694	2,783	2,665	0.2%	-20%
Scope 2 [2]	24,619	2,776	2,182	1,925	0.2%	-92%
Electricity	19,463	0	0	0	-	-100%
District heating	5,156	2,776	2,182	1,925	0.2%	-63%
Scope 3	19,610	1,179,297	1,044,872	1,064,454	99.2%	-10%
3.1 Purchased goods and services [3]		1,170,591	1,027,524	1,046,376	97.5%	-11%
- whereof beef		860,700	813,600	816,300	76.1%	-5%
- whereof pork		249,000	168,500	177,500	16.5%	-29%
- whereof lamb		48,300	40,300	47,700	4.4%	-1%
- whereof packaging		4,591	5,124	4,876	0.5%	+6%
3.3 Fuel- and energy-related emissions	5,747	1,314	2,399	1,583	0.1%	+20%
3.4 Purchased transports and other upstream transports [4]	10,516	12,502	11,592	13,165	1.2%	+5%
3.5 Waste management		891	549	553	0.1%	-38%
3.6 Business travel [5]		131	25	112	0.0%	-15%
3.12 End-of-life treatment of sold products	3,347	1,868	2,783	2,665	0.2%	+43%
TOTAL (scope of base year 2003)	74,471	26,195	24,854	25,643	2.4%	-66%
TOTAL (scope of base year 2019)	74,471	1,189,808	1,052,952	1,072,683	100%	-10%
Carbon offsets	0	0	0	0		-
TOTAL (incl. carbon offsets)	74,471	1,189,808	1,052,952	1,072,683		-10%

Key indicators	Unit	Base year: 2019	2021	2022	Change 2019 - 2022
Emissions per sold meat weight	tonnes of CO_2e/ tonnes of sales	9.7	8.6	8.7	-10%

1) The carbon dioxide is a residual product from the industry. Approximately 50 percent of the carbon dioxide is emitted during the production phase (scope 1) and 50 percent when the customer opens the carbon dioxide filled packaging (scope 3).
2) Scope 2 is disclosed using the market-based method.
3) GHG emissions from primary production of meat and packaging material. Ingredients other than meat are excluded. Updated base year 2019 med updated emissions factors for primary production of meat.
4) Life stock transports and transports of supplies between the sites and DC. Transports from DC to customer are excluded.
5) Air travel train travel and hotel stays. Only travels booked by the travel agency.
6) Scope 1 and scope 2 are compared to the base year 2003. Scope 3 is compared to the base year 2019.

Scope 1

In the table below, HKScan's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	5,945
Direct biogenic CO_2 emissions	2,732

Scope 2

The table below displays HKScan's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	1,925
Location-based method	6,703

HKScan's value chain

Scope 3 accounts for 99.2 percent of HKScan's emissions. Emissions from primary production of meat constitute the most significant source of emissions in scope 3 for HKScan, but emissions from packaging, logistics and waste are also reported. Scope 1 and 2 make up the remaining 0.8 percent.

The goal for the farms is a 20 percent reduction by 2030, and net-zero by 2040. Through Gårdsinitiativet, HKScan works together with its suppliers to reduce climate emissions and increase the environmental benefits of Swedish meat. Currently, HKScan has approximately 60 farms that have joined the initiative. HKScan has developed 100 different inputs that are mapped and identified, in order to then be implemented on farms to reduce their climate impact, increase the environmental benefits and increase the profitability of the farm.

All solutions are not in place yet. Research and new techniques and methods are required. To contribute to the development, HKScan works together with other actors to develop and evaluate new methods. The co-ownership in Agronod and the cooperation within the industry that follows, is an important piece of the puzzle in this work.

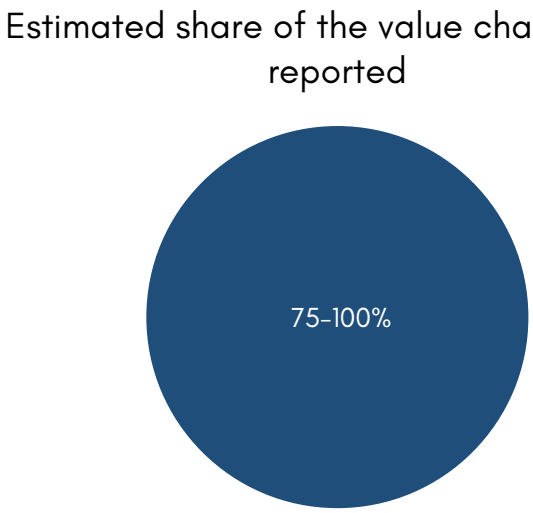


Figure 16. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 8. HKScan's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	1,046,376	Meat: Beef: 816 300 Pork: 177 500 Lamb: 47 700 Packaging: Paper: 312 Plastics: 4300 Aluminum: 97 Steel plate: 166	Only meat and packaging.	95	Meat accounts for a significant proportion of emissions.	95
	2. Capital goods						
	3. Fuel- and energy-related activities	1,583					
	4. Upstream transportation and distribution	13,165	Truck: 12988 Ship: 165	Included: Life stock transports Transports of supplies between the sites and DC. Excluded: Transports from DC to customer.	100	The customers purchase the transports from DC.	100
	5. Waste generated in operations	553		Waste from waste reports as well as biogas and manure	100		100
	6. Business travel	112	Air travel: 103,7 Train travel: 0,2 Hotel stays: 7,9	Only travels booked by the travel agency.	90	Lack of data	100
	7. Employee commuting			Not measured.			
	8. Upstream leased assets			Not measured.			
Downsream	9. Downstream transportation and distribution						
	10. Processing of sold products						
	11. Use of sold products						
	12. End-of-life treatment of sold products	2,665	Emissions of carbon dioxide when the packagings are opened.	The carbon dioxide is a residual product from the industry. Aproximately 50 percent of the carbon dioxide is emitted during the production phase (scope 1) and 50 percent when the customer opens the carbon dioxidefilled packaging (scope 3).			
	13. Downstream leased assets						
	14. Franchises						
	15. Investments						
	TOTAL	1,064,454					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

In 2019, HKScan expanded the sustainability reporting by including the emissions from the primary production of meat, which is the largest source of emissions for the company within scope 3. The emission from the meat accounts for 97 percent of the company's total emissions. Currently, HKScan does not include other ingredients (such as spices).

HKScan recognize opportunities to improve and develop the reporting, especially linked to scope 3. To do this, development of tools is required, but also methodology and data quality.

The challenge of reporting scope 3 is access to actual data, currently average values are used for e.g. the meat (with the exception of the farms that are connected to Gårdsinitiativet). HKScan works together with other players in the industry to enable actual data from the farm for all suppliers via Agronod.

In addition, there is a great potential for improvement in reporting when carbon storage can be included in the reporting. Currently, uptake of carbon dioxide in soil and crops is not included in the reporting.

In addition to climate impact, it is necessary in scope 3 to consider other sustainability aspects such as biological diversity and cycles in order to achieve sustainable development.

The company's scope 3 target

By 2030, HKScan shall reduce climate emissions from meat by 20 percent (base year 2019). Longterm by 2040, HKScan shall achieve net-zero climate emissions in the entire value chain from farm to fork.

In addition to the work of reducing climate impact, HKScan also works to increase areas that benefit biodiversity and reduce eutrophication.

The company shows how the target is achieved

With the current available solutions and the number of suppliers in the primary production stage, HKScan does not see that a 50 percent reduction by 2030 is realistic to achieve as the majority of emissions come from biogenic sources that are more difficult to reduce.

There is a great need for political influence for a clear direction for agriculture with certain mandatory activities as well as investment support from political governance as well as investment support to support the transformation of agriculture. In addition to that, political influence is needed regarding e.g. availability of fossil-free fuel and investments in farm-based biogas throughout Sweden, etc.

To enable reduction, both collaborations, research and development are required. Hence, HKScan takes the following actions (among other things):

- Research to be able to better measure and monitor work with biological diversity at the farm level within the Mista Biopath project.
- New life cycle analysis of the environmental footprint for Swedish beef and lamb through RISE, where the footprint for biological diversity and measures to reduce environmental and climate impact are also analysed.
- Together with other actors in the industry, under the leadership of Swedish Seal, a definition of a fossil-free value chain is taken and what this means for meat, milk and cereal products.
- Starting of a pilot to measure the climate footprint on farms through data tools developed by Agronod.

Analysis and comments

HKScan has two base years, one that applies to emissions in scope 1 and 2 emissions. In the climate statement, these emissions are therefore compared against the base year 2003. The remaining emissions have the base year 2019, which is why the emissions are compared with 2019. The total emissions are also compared with 2019, because such a large part of the emissions is in scope 3.

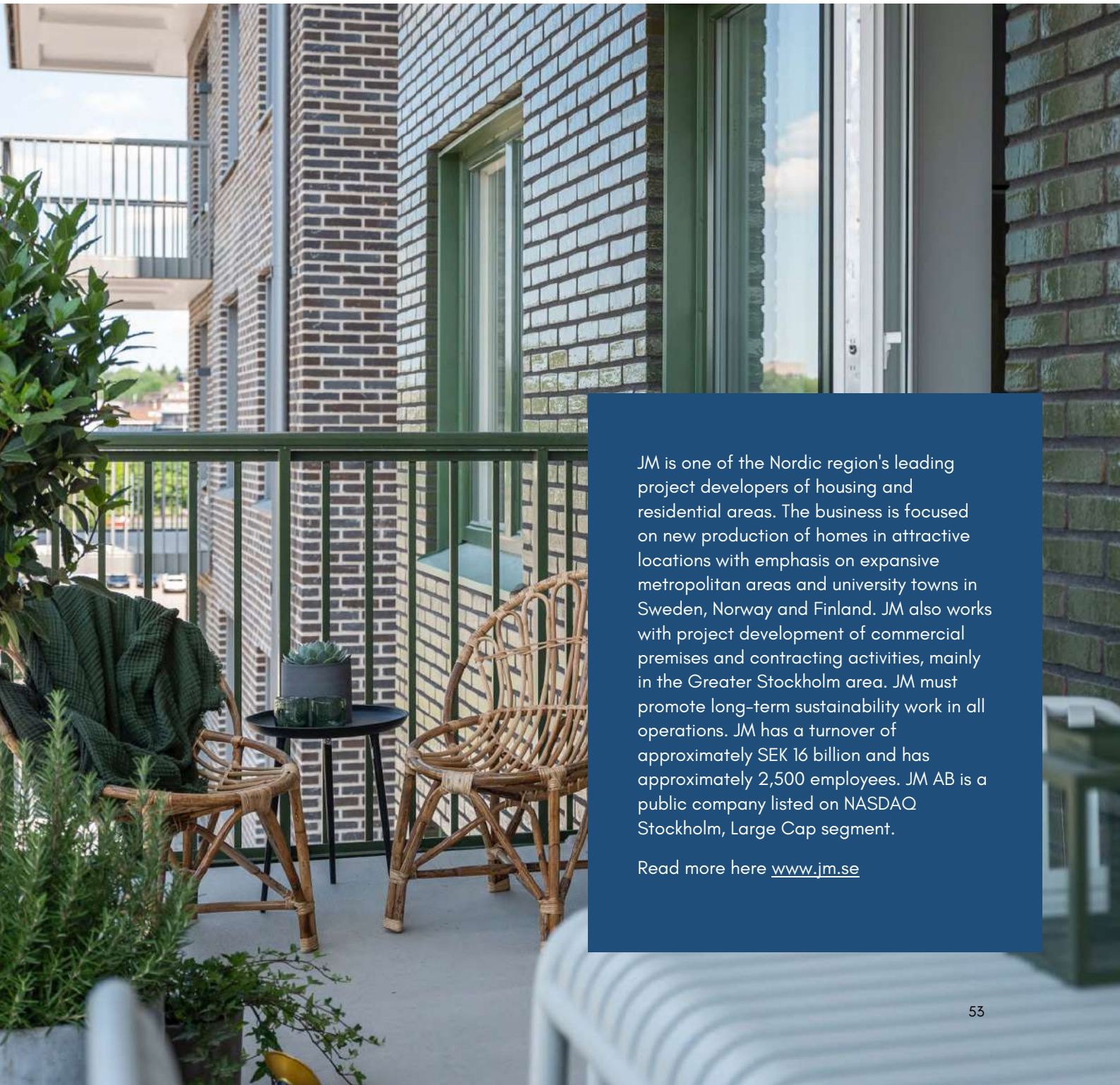
Compared to the base year 2003, emissions in scope 1 and 2 have decreased by 85 percent. Since 2019, scope 1 and 2 have decreased by 22 percent, while compared to the previous year, 2021, it has increased slightly until 2022. The reason for the increase was mainly due to increased climate impact from refrigerant leakage. Car travel has decreased compared to both the base year of 2003 and compared to the last year before the pandemic restrictions, 2019, but has increased since the previous year due to the end of the pandemic restrictions.

For 2003, some emission sources are reported in scope 3; energy and fuel-related emissions, purchased transport and final handling of sold product. Emissions for these emission sources have decreased by 11 percent.

The total emissions in scope 3 account for roughly 99 percent of HKScan's total emissions and are dominated by emissions from the primary production of meat, approximately 97 percent of HKScan's total emissions. For this year's climate accounts, the calculations have been refined and therefore both the base year and 2021's emissions have been updated to be comparable. Emission reductions can be derived partly from specific farms' reporting in connection with the Farm Initiative.

Compared to 2019, emissions in scope 3 decrease by 10 percent, while it increases by 2 percent compared to the previous year. As the emission from primary production is so dominant, it can be interesting to compare other emissions separately from primary production. It then appears that emissions have increased by 8 percent since 2019 and by 2 percent since 2021. Behind this increase is above all purchased transport and final handling of sold products.

The key figure total emissions per ton of sales, where all emissions are included, has decreased by 10 percent since the base year 2019.



JM is one of the Nordic region's leading project developers of housing and residential areas. The business is focused on new production of homes in attractive locations with emphasis on expansive metropolitan areas and university towns in Sweden, Norway and Finland. JM also works with project development of commercial premises and contracting activities, mainly in the Greater Stockholm area. JM must promote long-term sustainability work in all operations. JM has a turnover of approximately SEK 16 billion and has approximately 2,500 employees. JM AB is a public company listed on NASDAQ Stockholm, Large Cap segment.

Read more here www.jm.se

Climate targets

JM's climate goals are based on the Haga Initiative's goal of an 85 percent reduction by 2030. JM's goal is to reduce emissions in scope 1,2 and 3 to close to zero before the end of 2030 - which, according to assessment, corresponds to an emission level of around 15 percent. Today, JM prioritizes removing emissions from its own emissions, along the entire value chain.

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Actions taken in 2022

- Since October 2022, JM only uses concrete that is climate-improved to at least 10 percent, which will significantly reduce JM's climate impact in scope 3.
- Implementation of the concept Fossil-free construction site started in the fall of 2022, which implies that work machines and vehicles on JM's construction sites shall be powered by fossil-free fuel or be electric.
- JM has carried out climate calculations for around 30 projects in the group. Thanks to completed climate calculations, JM can report Kg CO_2e/m2 per BTA in both the group's sustainability report and in the Haga Initiative's greenhouse gas emission disclosure. Since December 2022, all projects carry out climate calculations early in the system action stage, which makes it possible to early on, get control over the climate impact and evaluate measures to reduce it.

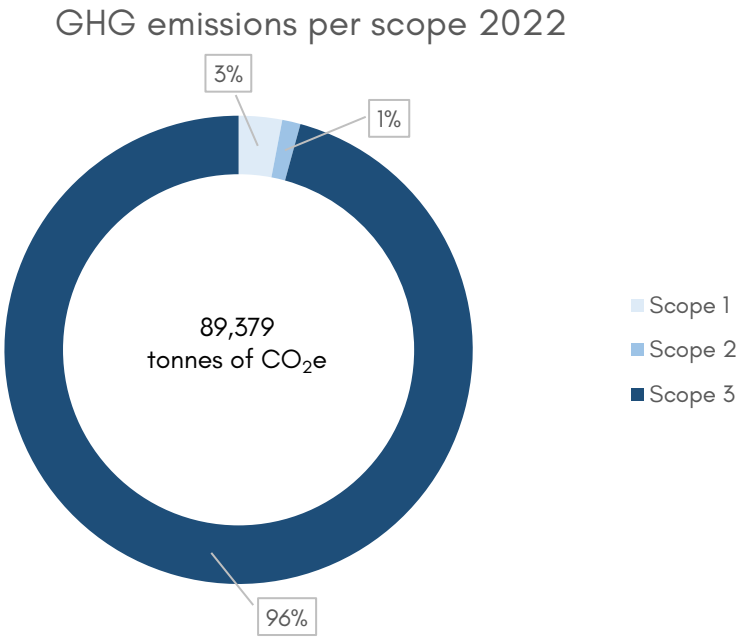

Figure 17. The figure discloses reported emissions per scope for 2022..

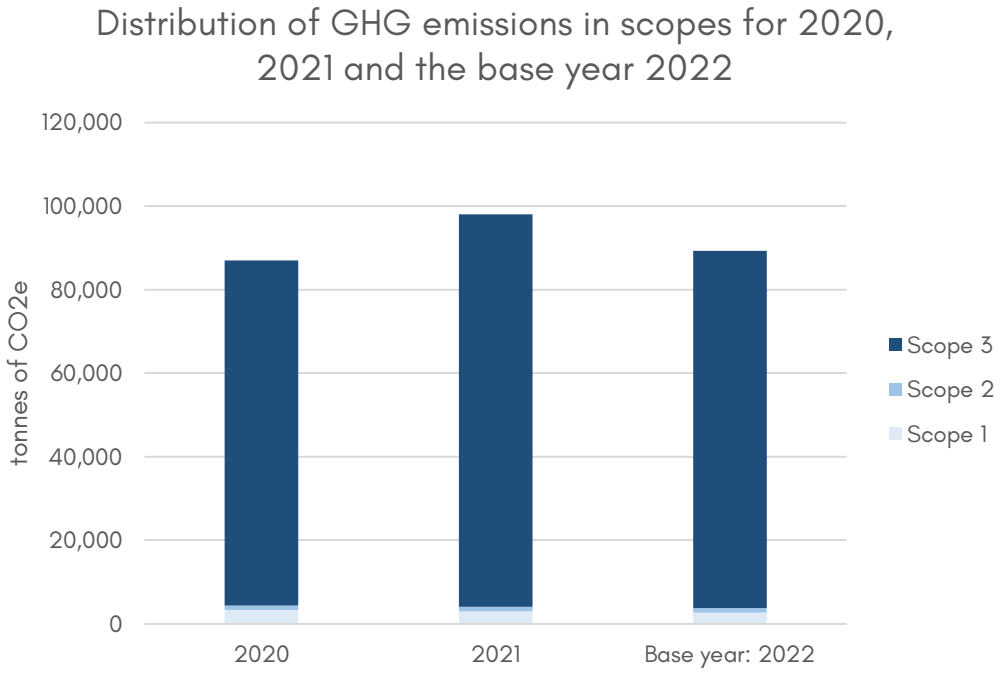

Figure 18. The figure disclose the scope 1 emissions for 2020, 2021, the base year 2022 and the target year 2030.

Table 9. JM's emissions 2022.

GHG emissions (tonnes of CO_2e)	2020	2021	Base year: 2022	Share of total 2022	Change 2020 - 2022
Scope 1	3,301	3,060	2,677	3%	-19%
Service vehicles			17	0.02%	-
Car travel	2,699	2,453	1,948	2%	-28%
Own heating	602	607	711	1%	+18%
Scope 2 [1]	1,136	1,100	1,131	1%	-0.5%
Electricity	0.0	0.0	0.0	-	-
Distict heating	1,136	1,100	1,131	1%	-0.5%
Scope 3	82,582	93,851	85,571	96%	+4%
3.1 Purchased goods and services	69,158	79,860	72,310	81%	+5%
3.3 Fuel- and energy-related emissions	1,407	1,362	1,240	1%	-12%
3.4 Purchased transports and other upstream transports [2]	5,346	5,516	6,688	7%	+25%
3.5 Waste management	54	49	55	0.1%	+2%
3.6 Business travel [3]	79	18	144	0.2%	+83%
3.8 Upstream leased assets [4]	5,468	5,965	4,193	5%	-23%
3.13 Downstream leased assets [5]	1,070	1,081	941	1%	-12%
TOTAL (excl. carbon offsets)	87,019	98,011	89,379	100%	+3%
Carbon offsets [6]	-69	-12	-126		
TOTAL (incl. carbon offsets)	86,950	97,999	89,253		+3%

Key indicators	Unit	2020	2021	Base year: 2022	Change 2020 - 2022
GHG emissions per built area [7]	$kgCO_2e$/ BTA	450	492	369	-18%

1) Scope 2 is disclosed using the market-based method.
2) Adjusted calculation method for 2020-2022 using generic values from The Swedish National Board of Housing, Building and Planning.
3) Inkluderar Air travel, train travel, taxi, bus travel and hotel stays.
4) Working machines in the projects.
5) Energy use in new homes the two first years of use.
6) Air travel in duty.
7) Total reported emissions per new building area

Scope 1

In the table below, JM's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	2,677
Direct biogenic CO_2 emissions	345

Scope 2

The table below displays JM's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	1,131
Location-based method	2,968

JM's value chain

Scope 3 in JM's value chain consists, above all, of suppliers of materials, energy and fuel. JM mainly signs central framework agreements with suppliers and demands that they live up to a number of sustainability criterias. Today, JM does not require suppliers to have set up their own climate goals and action plans but has an ongoing dialogue with suppliers about the importance of reduced climate impact. In the near future, however, JM sees that requirements for climate goals and action plans will be introduced.

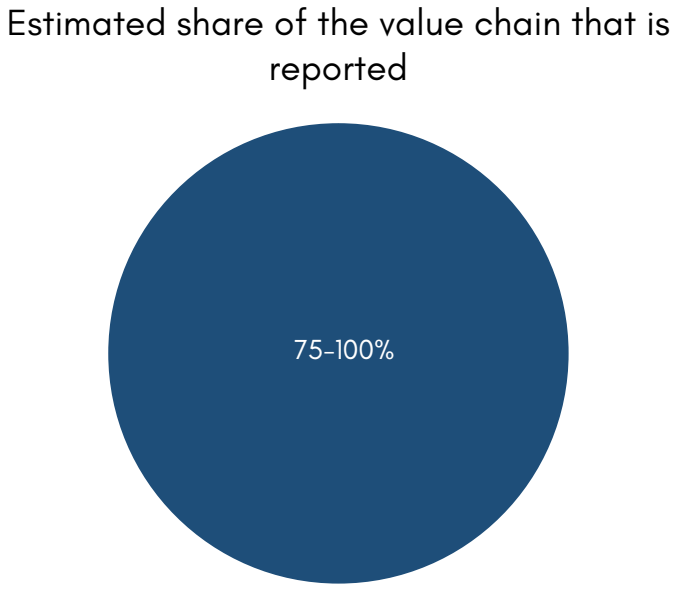

Figure 19. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 10. JM' s estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	72,310	Construction materials: 69 853 - Cast-in-place concrete: 23 371 - Prefabricated concrete: 13 616 - Steel and rebar: 9 588 - Other materials: 23 278 Waste material: 2 457	Based on results from completed climate calculations for the construction phase A1-A3 + A5.1 in 80% of JM's completed projects and total BTA in completed projects.	100%		64 % *(80 % measured data from 80% of the projects)*
	2. Capital goods	0.00					
	3. Fuel- and energy-related activities	1,240	Upstream emissions for: - Own heating: 162 - Own transports: 6 - Cars: 664 - Electricity: 262 - District heating: 146	Some omissions regarding energy consumption at the sites.	95%	Lack of reliable measuring systems.	64 % *Measured: own heating, own transports, electricity, partly cars and district heating.* *Estimated: partly cars and district heating*
	4. Upstream transportation and distribution	6,688		Based on results from completed climate calculations for the construction phase A1-A3 + A5.1 in 80% of JM's completed projects and total BTA in completed projects.	100%		64 % (80 % measured data from 80% of the projects)
	5. Waste generated in operations	55	Byggavfall till materialåtervinning	Statistik från våra avfallsentreprenörer.	100%		100%
	6. Business travel	144	Air travel: 126 Train travel: 0 Bus travel: 1 Taxi: 6 Hotel stays: 11	Travel booked by the travel agency and travel that has been recorded in accordance with current account structure.	90%	Lack of data.	0%
	7. Employee commuting	0.00					
	8. Upstream leased assets	4,193	Working machines at the sites.	Values are based on reference calculations that have been extrapolated for the whole company.	100%	Lack of reliable measuring systems.	0%
Downstream	9. Downstream transportation and distribution	0.00					

	10. Processing of sold products	0					
	11. Use of sold products		Future energy use and maintanence of housing	Future GHG emissions from the use of sold housings have not been calculated due to lack of methodology for energy scenarios and future maitanance.		Lack of data	
	12. End-of-life treatment of sold products	0					
	13. Downstream leased assets	941	Energy use in new homes the two first years of use. - District heating: 861 - Electricity: 80	Based on energy calculations for JM´s completed projects.	100%		0%
	14. Franchises	0.00					
	15. Investments	0.00					
	TOTAL	85,571		The climate disclosure includes GHG emissions for the Swedish operations; JM AB.			
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)	8.87	Construcktion waste incinerated with energy recovery.	Stats from the waste treatment contractors.	100%		100%

Emissions in scope 3 which are currently not included in the reporting

A large part of JM's climate impact comes from the production of housing where the methodology for climate calculations is constantly being developed. JM's climate calculations are largely based on actual emissions from e.g. purchase of materials, where there are complex products with low availability of climate data. For installations, for example, templates are used to estimate the climate impact. The climate calculation tool used does not support calculations of the building's future operation (scope 3.11 Use of sold products), which is why this is not currently reported.

A building has a life expectancy of >50 years, which is why the climate impact during its lifetime is strongly dependent on scenarios for future energy composition. With a scenario based on the Swedish electricity mix for district heating and continuous reduced climate impact from energy to a climate-neutral energy sector in 2045, energy use is estimated to account for 10-15 percent of JM's climate impact if it is recorded in the year the homes are completed. Even future renovations and maintenance have a theoretical climate impact which is also dependent on theoretical lifespan and how big a climate impact the manufacturing and waste management of materials will have in 20-30 years. These emissions are estimated to account for a few percent of JM's climate impact. Methods are being developed to hopefully be able to calculate and report this by next year.

The company's scope 3 target

JM's climate goal of having close to zero climate-impacting emissions by the end of 2030 includes emissions from the construction process, which is the same as JM's scope 3 emissions.

The company shows how to achieve the target

JM has a clear understanding of what is required in order to reach the set climate target and conducts a number of development initiatives and test projects, for example;

- Continues to test and implement climate improved concrete.
- Collaborates with suppliers with new solutions for material manufacturing.
- Implements and tests alternatives to concrete frame.
- Full-scale implementation of Fossil-free Construction Site, i.e. that all vehicles and work machines are powered by renewable fuel and/or are electric.
- Set demands on suppliers responsible for the majority of the emissions to have their own climate goals and action plans.

JM is dependent on others, and on additional factors to succeed, not least how fast the development of climate-improved materials is.

Analysis and comments

JM has set a new base year, 2022, which is the same year as the latest climate disclosure. The base year adjustment has taken place due to a new and improved calculation method, including for purchased transports which tripled the emissions for the category. The adjustment means that the emissions for purchased transport are also recalculated for 2020 and 2021, so this tripling cannot be seen in the emissions table above. To see the change in the adjustment, you have to compare it with the Haga Initiative's GHG Disclosure 2021.

Although the base year is now 2022, 2020 and 2021 are still reported to provide a history. Previously, JM had 2020 as the base year, and we compare this year against it. Within scope 1, emissions continue to decrease and in 2022 have decreased by 19 percent compared to 2020. Business trips by car make up approximately 70 percent of scope 1 and are the reason for the decrease. Emissions from own heating, on the other hand, are increasing since 2020 and emissions from service vehicles have increased in 2022.

Emissions within scope 2 are largely unchanged over the years for JM. As JM buys guarantees of origin for the electricity, it is possible variations in district heating consumption and/or district heating mix that affect the result.

Scope 3 constitutes the majority of JM's total emissions (approximately 95 percent) and purchased goods and services are the largest scope 3 category (approximately 80 percent of total emissions). As the significantly largest emissions category, purchased goods and services have increased by 5 percent since 2020 but decreased by 10 percent since 2021. Since purchased goods and services make up approximately 80 percent of JM's total emissions, the change in total emissions, the change in purchased goods and services. JM's total emissions for 2022 increase by 3 percent compared to 2020, but decrease by 9 percent compared to 2021.

The category purchased goods and services is affected by how much JM builds during an accounting year. Therefore, in addition to JM's total emissions, it is interesting to follow the key figure of emissions per built square meter ($kgCO_2e$/BTA), which in 2022 will decrease by 18 percent compared to 2020 and decrease by 25 percent compared to 2021.

Lantmännen

Lantmännen is an agricultural cooperative and Northern Europe's leader in agriculture, machinery, bioenergy and food products. Lantmännen is owned by 18,000 members, has 10,000 employees, operates in around 20 countries and has an annual turnover of SEK 60 billion. With grain in the heart of their operations, the resources of the arable land are refined for a viable agriculture. By research and driving sustainable business development throughout the value chain, Lantmännen takes responsibility from field to fork.

Read more here www.lantmannen.com

Climate targets

Lantmännen's goal is to reduce emissions from production with 50 percent relative to turnover by 2030, compared to 2019's level.

Production shall be fossil-free in Sweden and Norway by 2025 at the latest, by 2030 in the rest of the Nordic region and by 2040 in the rest of Europe.

Emissions from purchased transport shall be reduced by 50 percent relative to turnover by 2030, from 2019's level. Intermediate targets are fossil-free transport and service vehicles in Sweden by 2030, and fossil-free in all markets by 2050.

Lantmännen aims to create the conditions for a sustainable primary production with a halved climate impact every ten years, in order to reach climate neutrality by 2050

Actions taken in 2022

- Lantmännen and Yara were the first companies to sign a commercial agreement for launching fossil-free mineral fertiliser, produced with renewable energy.
- Lantmännen's s cultivation program Climate & Nature continues to develop well. Lantmännen and Spendrups have started a collaboration where malt grain, which is the main ingredient in beer, is grown according to the cultivation program to reduce climate impact and strengthen biodiversity.
- During the year, Lantmännen's food stores Ceralia and Unibake joined the climate commitment Science Based Targets initiative.

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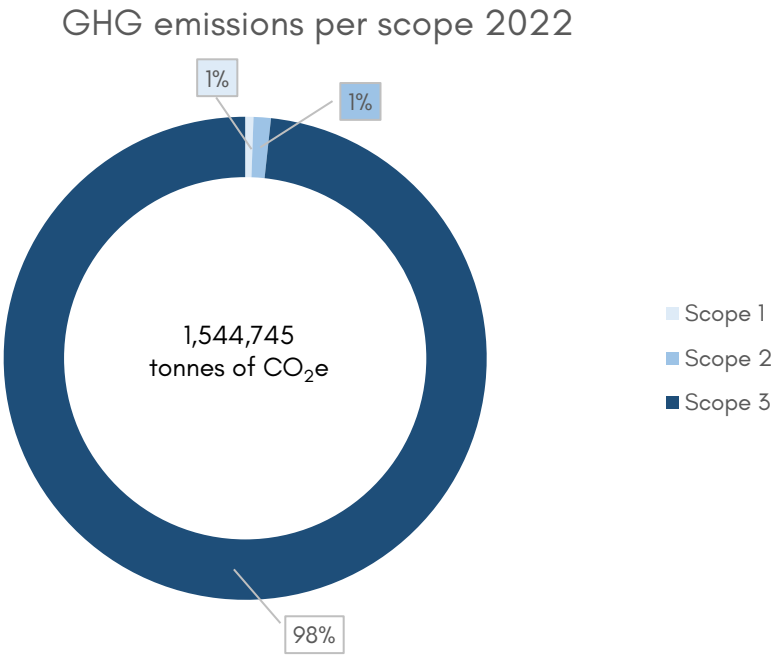

Figure 20. The figure discloses reported emissions per scope for 2022.

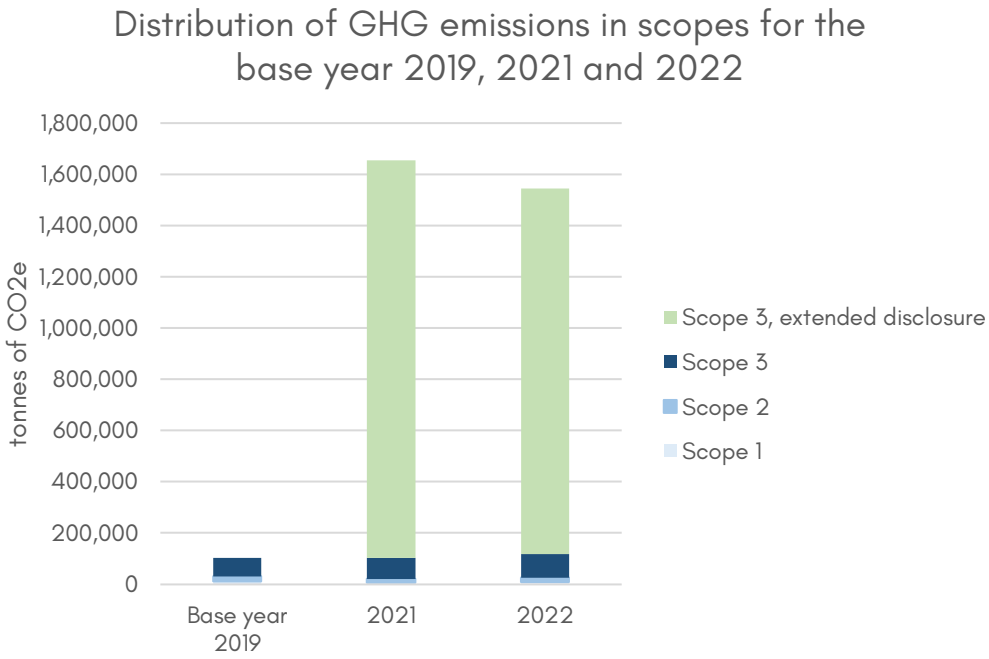

Figure 21. The figure discloses the distribution of scopes for the base year 2019, 2021 and 2022.

Table 11. Lantmännen's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year 2019	2021	2022	Share of total 2022	Change 2019 - 2022
Scope 1	10,197	6,124	8,514	0.6%	-17%
Own processes and heating	6,473	3,769	4,280	0.3%	-34%
Cars	3,724	2,355	1,543	0.1%	-59%
Own working machines [1]			2,691	0.2%	-
Scope 2 [2]	20,273	15,426	17,881	1.2%	-12%
Electricity [3]	0	0	2,540	0.2%	-
Distict heating	20,273	15,426	15,341	1.0%	-24%
Scope 3 (scope of base year)	73,003	82,082	91,250	5.9%	+25%
3.3 Fuel- and energy-related emissions	8,391	10,482	12,450	0.8%	+48%
3.4 Purchased transports and other upstream transports	61,600	69,100	76,600	5.0%	+24%
3.6 Business travel [4]	3,012	2,500	2,200	0.1%	-27%
Extented scope 3 disclosure		1,550,000	1,427,100	92.4%	-
- *3.1 Purchased goods and services* [5]		1,433,000	1,299,200	84.1%	-
- *3.2 Capital goods* [6]		4,200	6,300	0.4%	-
- *3.11 Use of sold products* [7]		112,800	121,600	7.9%	
TOTAL (scope of base year)	103,473	103,632	117,645	7.6%	+14%
TOTAL (scope from 2021)		1,653,632	1,544,745	100%	-
Carbon offsets					-
TOTAL (incl. carbon offsets)	103,473	1,653,632	1,544,745		

Key indicators	Unit	Base year: 2019	2021	2022	Change 2019 - 2022
GHG emissions per turnover (scope of base year)	tonnes of CO_2e/MSEK	4.4	4.7	1.9	-56%

1) Extended disclosure for 2022.
2) Scope 2 is disclosed using the market-based method.
3) Workshops and properties with own electricity contracts. Extended disclosure for 2022.
4) Air travel and train travel. Only travel booked through the travel agency.
5) Weighed grain, soy and palm oil, raw material for fuel and other where the data is solely from the bakery business. Services have been added to the 2022 calculation year.
6) Only for the bakery business.
7) Emissions from use of sold fuels.

Scope 1

In the table below, Lantmännen's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	8,514
Direct biogenic CO_2 emissions	161,170

Scope 2

The table below displays Lantmännen's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	17,881
Location-based method	39,588

Lantmännen's value chain

The emission calculation applies to Lantmännen's Swedish operations.

Scope 3 accounts for over 95 percent of Lantmännen's climate emissions, with weighted grain raw material accounting for 70 percent. The calculation includes grain, purchased goods and services, transport, business travel, purchased energy and fuels, and the use of produced fuel. Scope 3 regarding the production and use of contracting and agricultural machinery from Swecon and Lantmännen Maskin's resale operations is not included in the calculation.

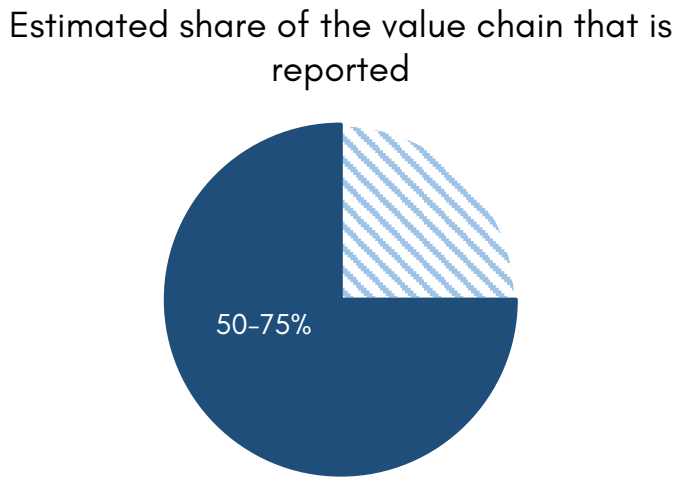

Figure 22. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 12. Lantmännen's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	1,299,200	Weighed grain: 1,011,000 Soy and palm oil: 214,600 Raw material for fuel: 18,000 Packaging: 8,200 Other materials: 38,500 Services: 8 900	The post "Other materials" only include emissions from the food production. Emissions from purchased crop protection and plant nutrition are not included as these are included in the emissions from grain. (Sold to farmers who deliver grain to Lantmännen)	90%	Lack of data for other operations. The emissions excluded are proportionally small.	100%
	2. Capital goods	6,300		Only include emissions from the food production.	40%	Lack of data for other operations.	100%
	3. Fuel- and energy-related activities	12,500	Upstream emissions for: Fuels in own processes: 7,000 Service vehicles and working machines: 870 Cars: 90 Electricity: 1,230 District heating: 2,860	-	100%		100%
	4. Upstream transportation and distribution	76,600		Upstream transports not purchased by Lantmännen are excluded. These emissions are to some extent included in the emissions for purchased goods.	90%	Lack of data for transports not purchased by Lantmännen.	100%
	5. Waste generated in operations						
	6. Business travel	2,200		Business travel not booked through the travel agency excluded.	80%	Lack of data for business travel not booked through the travel agency.	100%
	7. Employee commuting						
	8. Upstream leased assets						
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products						

	11. Use of sold products	121,600		Only includes emissions from the combustion of produced fuels. Emissions from the use of sold agricultural and construction machinery in the retail business are not included.	15%	Emissions from the use of sold inputs to agriculture are included in weighed grain to avoid double counting. (Sold to farmers who deliver grain to Lantmännen) Use of other products in the food and feed business difficult to estimate but probably small compared to fuel use and machine use	100%
	12. End-of-life treatment of sold products						
	13. Downstream leased assets						
	14. Franchises						
	15. Investments						
	TOTAL	1,518,400		Lantmännen's Haga scope is the Swedish operation. Swecon and Lantmännen Maskin's resale operations are not included in the calculation.	50-75%	Verification of data for other activities is ongoing.	100%
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

Lantmännen operates in agriculture, feed, food production, energy and machinery, which can be seen as separate value chains. Each value chain has its own challenges and Lantmännen's position in each value chain varies. The distribution between different emission categories also varies between the value chains, which means that each value chain needs its own strategies for the climate challenge. In analysis, objectives, and activities within scope 3, Lantmännen therefore strives to manage each value chain separately. Lantmännen has initially focused on the grain value chain, which is the focus of the entire operation. Mapping of all value chains is ongoing, but some areas have greater challenges in analyzing and calculating all emission categories. In the current scope 3 reporting, all value chains in the group are included except for the resale of construction and agricultural machinery, as analysis of emissions mainly in the use phase is ongoing.

The company's scope 3 target

Lantmännen's target is to create the conditions for sustainable primary production with halved climate impact every ten years, to reach climate neutrality by 2050, achieve fossil-free production (by 2025 in Sweden and Norway, by 2030 in the rest of the Nordic region, and by 2040 in the rest of Europe) and reduce the emissions from purchased transport by 50 percent relative to turnover by the year 2030, from 2019's level.

The company shows how the target is achieved

Farming for the future is Lantmännen's vision and strategy for sustainable, profitable agriculture. Lantmännen will be able to offer grains with a 50 percent reduction as early as 2023, compared to 2015, and has good prospects of reaching the target for grains in for the own food. Regarding the total weighed grain volume, the outcome depends on other players on the market and cooperation in the value chain.

The strategy for transport is based on more sustainable fuel choices and more efficient transport flows.

Analysis and comments

Lantmännen has reported the emissions according to the same scope as in 2021 with the exception of two extensions of the calculations; own work machines and electricity consumption in workshops and properties that have their own electricity contracts. These two items contributed to each 0.2 percent of the total emission. Own work machines, however, accounted for 32 percent of the scope 1 emission and the workshops and properties with their own electricity contracts for 14 percent of the scope 2 emission.

Scope 1 emissions have decreased by 17 percent since the base year 2019. For comparable emissions, i.e. excluding the own work machines, scope 1 has decreased by 43 percent since 2019 and by 5 percent since 2021.

Scope 2 emissions have decreased by 12 percent compared to the base year, but for comparable emissions, i.e. excluding the workshops and properties with their own electricity contracts, the reduction is 24 percent and largely unchanged compared to 2021.

The largest scope 3 categories within the scope of the climate goal; energy and fuel-related activities and purchased transport have increased both compared to the base year and 2021. Although the emission from the third scope 3 category; business trips, decreases, so the emissions for these scope 3 categories increase by 25 percent in total compared to the base year.

For the climate goal as a whole, emissions increase by 14 percent compared to the base year 2019.

The background to the increased emissions for transport are actual increases due to a reduced proportion of biofuels due to high costs, but also because the calculation model for maritime transport is based on transport costs, which means that the greatly increased transport costs affect0.078014 ar the outcome negatively (increased emissions).

Outside of the climate target, Lantmännen reports, among other things, the largest source of emissions; purchased goods and services, which accounted for 84 percent of the emission. At 8 percent of Lantmännen's total emissions, use of sold products is also a large item.

Between 2022 and 2021, the total reported emissions have decreased by 7 percent.

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LÖFBERGS

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Löfbergs was founded in 1906 and is a family-owned coffee roastery, now operating in the third and fourth generation. The company is active in around ten core markets in Northern Europe. The production corresponds to about 10 million cups of good coffee – a day. In Sweden, Löfbergs has a turnover of SEK 1,301 million and has 170 employees. The group has a turnover of SEK 2,010 million and has around 300 employees.

Read more here www.lofbergs.se

Climate targets

Löfbergs' climate target for 2030 is to reduce scope 1 emissions with 85 percent, in terms of absolute emissions, compared with 2018/2019's financial year levels. In scope 2, all purchased energy shall be renewable or recycled. Emissions in scope 3 shall be reduced by at least 30 percent, related to the volume of coffee produced, compared with 2018/2019's financial year levels.

Official sustainability report

Sustainability report 2021-2022

Actions taken in 2022

- By working systematicly, Löfbergs has reduced its wastage of produced coffee to 0.47 percent.
- Löfbergs has developed a new monolaminate coffee packaging that can be recycled, which creates the conditions for a circular cycle. Compared to previous packaging, the climate impact is reduced by 55 percent.
- Together with suppliers and other partners, Löfbergs will introduce more regenerative agricultural methods in coffee plantations, with the aim of reducing the climate footprint from cultivation.

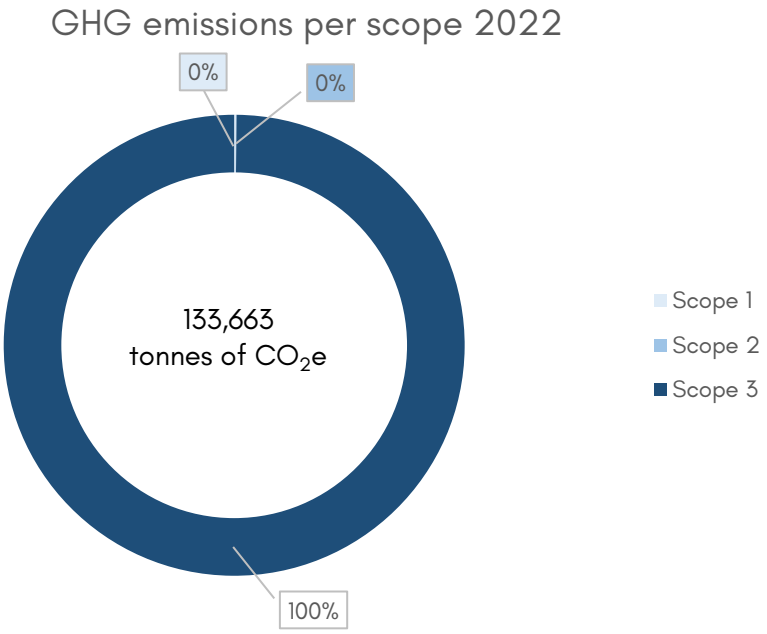


Figure 23. The figure discloses reported emissions per scope for 2022.

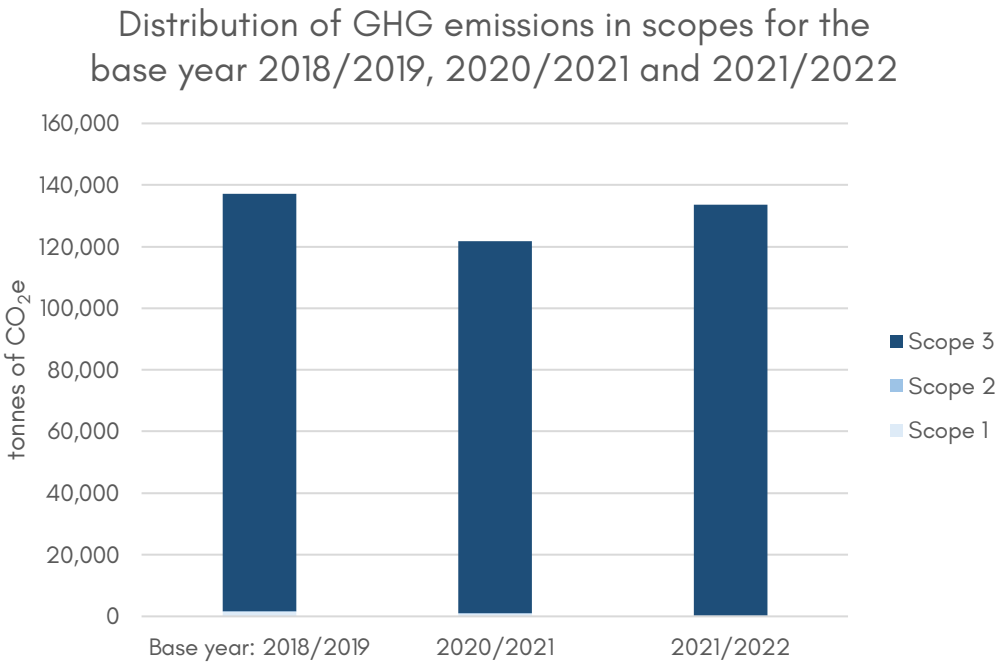


Figure 24. The figure discloses the distribution of scopes for the base year 2018/2019, 2020/2021 and 2021/2022.

Table 13. Löfberg's emissions 2022

GHG emissions (tonnes of CO_2e) [1]	Base year: 2018/2019	2020/ 2021	2021/ 2022	Share of 2021/ 2022	Change 2018/2019 - 2021/2022
Scope 1	1,551	908	161	0.1%	-90%
Roasting	1,316	771	0	-	-100%
Energy	0	0	0	-	-
Own cars	235	137	161	0.1%	-31%
Own transports	0	0	0	-	-
Scope 2	45	53	62	0.05%	+39%
Electricity	0	0	0	-	-
Distict heating	45	53	62	0.05%	+39%
Scope 3	135,494	120,808	133,439	99.8%	-2%
3.1 Purchased goods and services	111,585	99,846	110,537	82.7%	-1%
- Packaging	2,423	1,756	2,114	1.6%	-13%
- Cultivation of coffee [2]	109,161	98,090	108,424	81.1%	-1%
3.3 Fuel- and energy-related emissions	338	299	324	0.2%	-4%
3.4 Purchased transports and other upstream transports	9,691	8,129	8,975	6.7%	-7%
- Upstream	7,946	7,184	8,196	6.1%	+3%
- Downstream	1,745	944	779	0.6%	-55%
3.5 Waste management	10	6	7	0.01%	-30%
3.6 Business travel	350	10	78	0.1%	-78%
3.9 Customers own transports [3]	530	530	871	0.7%	+64%
3.11 Use of sold products	12,991	11,988	12,648	9.5%	-3%
TOTAL (excl. carbon offsets)	137,090	121,769	133,663		-3%
Carbon offsets [4]	-956	-1425	0		-100%
TOTAL (incl. carbon offsets)	136,134	120,344	133,663		-2%
GHG emissions (tonnes of CO_2e)	1,551	908	161	0.1%	-90%
Scope 1	1,316	771	0	-	-100%

Key indicators	Unit	Base year: 2018/ 2019	2020/ 2021	2021/ 2022	Change 2018/2019 - 2021/2022
Total emissions per ton produced coffee	tonnes of CO_2e/tonnes of produced coffee	5.3	5.1	5.3	+0%

1) Löfbergs´ climate disclosure includes the Swedish operations and the production facility in Viborg (Denmark). For Viborg, all parts of the report are included except business travels.
2) Cultivation including other processes at the site.
3) Transports where the customer picks up from Löfbergs' warehouse
4) Offsetting with CDM Gold standard projects.

Scope 1

In the table below, Löfberg's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	161
Direct biogenic CO_2 emissions	2,097

Scope 2

The table below displays Löfberg's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	62
Location-based method	457

Löfberg's value chain

The climate impact from coffee is greatest in scope 3. Cultivation has the greatest impact (around 80 percent), followed by the consumer's end use of the product (9 percent) and transport (around 7 percent). Packaging materials, business trips and waste management are also included in the calculation. Capital goods, staff trips to work and consumers' trips to shops, etc. are excluded.

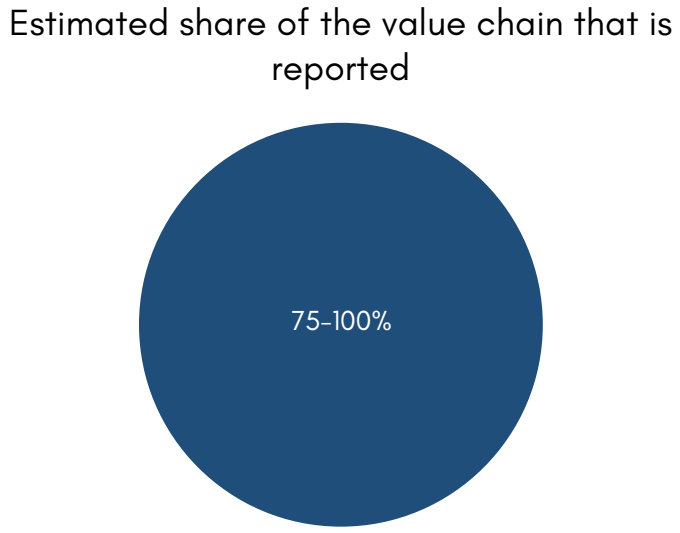


Figure 25. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 14. Löfberg's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	110,537	Packaging: 2 114 Cultivation of coffee: 108 424	Green coffee and packaging material	95%	Only emissions from green coffee and packaging material included as they stands for 95 percent of all purchased goods.	2%
	2. Capital goods	-	-	Not disclosed.			
	3. Fuel- and energy-related activities	324		-	100%	-	100%
	4. Upstream transportation and distribution	8,975	Purchased upstream transports: 8196 Purchased downstream transports: 779	-	100%		100%
	5. Waste generated in operations	7	-	Only waste from the operations in Sweden.	100%		100% (from the waste reports)
	6. Business travel	78	-	Only business travel in the Swedish operation. Includes air travel, train travel, taxi, employee cars and hotel stays.	100%		
	7. Employee commuting	-	-	Not disclosed.	-	Lack of data	-
	8. Upstream leased assets	-	-	Not relevant.	-	Not relevant.	-
Downstream	9. Downstream transportation and distribution	871		Transports where the customer purchase the transport.	100%		80%
	10. Processing of sold products	-	-	Not disclosed.	-	For the moment negligible. Roasting of green coffee at the micro roastery Crema.	
	11. Use of sold products	12,648		Preparation (brewing) of coffee, including waste treatment at customer	100%	-	0%
	12. End-of-life treatment of sold products	-	-	Not disclosed.	-	Lack of data	
	13. Downstream leased assets	-	-	Not disclosed.	-	Negligible. Leasing of coffee machines.	-
	14. Franchises	-	-	Not relevant.	-	Not relevant.	-
	15. Investments	-	-	Not relevant.	-	Not relevant.	-
	TOTAL	133,441					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)	183					

Emissions in scope 3 which are currently not included in the reporting

The emissions that are not covered in Löfberg's scope 3 reporting are staff trips to and from work, consumers' trips to and from shops, coffee machines for customers within Out of Home (hotels, restaurants, and cafes), capital goods and the purchase of office supplies, furniture and similar, to the own business.

In relation to the emissions covered in the reporting, the aspects mentioned above are deemed to be of minor importance. Löfbergs is continuously expanding the scope of its climate accounting and the ambition is to step by step include more emissions in order to provide as a transparent and accurate picture as possible of its total climate impact in the value chain.

The company's scope 3 target

30 percent reduced emissions in scope 3 (intensity target, related to the volume of coffee) by 2030, with 2018/2019 as the base year.

The company shows how the target is achieved

In order to achieve a 30 percent emission reduction in scope 3, greenhouse gases from cultivation need to be reduced. All fossil fuels need to be replaced with renewables, and emissions of carbon dioxide, methane and nitrous oxide need to be reduced through, for example, more forestry and regenerative farming methods.

Analysis and comments

Löfberg's climate accounts cover the Swedish operations as well as the production facility in Viborg, Denmark. For Viborg, all emissions are included in scope 1 and 2 except passenger cars. In order to take a broader view of its emissions, Löfbergs has chosen to include the climate impact from cultivation in the coffee it buys, disregarding the carbon sinks that coffee and shade trees constitute, and thus reports its most significant emission in the value chain. In connection with the GHG protocol developing guidance on climate calculations, land use and carbon uptake in soil and vegetation, this part may also be reported in the future, but in such cases separately.

Since the previous year, no extensions have been made to the scope. The increases in scope that have been made after the base year 2018/19 have also been calculated for the base year so that emissions can be compared.

Emissions in scope 1 have decreased by 90 percent since the base year and by 82 percent since the previous year, thanks to fossil fuels being completely phased out from roasting and heating, by replacing gas oil with biopropane and natural gas with biogas. If the transition to fossil-free alternatives from gas oil and natural gas for roasting and heating had not been carried out, the emissions in scope 1 would have been 2,100 tonnes higher, and roughly the same if all scopes are counted.

Remaining emissions in scope 1 are therefore only car journeys whose emissions since the base year have decreased by 31 percent, but increased by 18 percent since the previous year.

Coffee cultivation accounts for roughly 80 percent of the total emissions. The emission from cultivation is calculated using the categorization of various certifications and production methods as well as literature studies. Variations in the emission also depend on how large volumes are purchased during the year. Purchased coffee volume increased by 7 percent compared to the base year 2018/19 and by 11 percent compared to the previous year.

The key figure, emissions per ton of coffee produced, is roughly unchanged between the base year and 2022. This may seem surprising when emissions have overall decreased and with an increased raw coffee volume (+7 percent). However, the production of coffee has decreased by 3 percent. Shifts between purchased volume, which largely affects emissions from e.g. cultivation and upstream transport, and production may therefore need to be evaluated as a longer trend rather than between two individual years.

McDonald's is Sweden's largest restaurant chain with approximately 200 restaurants, about. 400,000 daily guests and a turnover of over SEK 5.7 billion in 2021. The company is one of Sweden's largest employers for young people. McDonald's restaurants are owned and operated by local franchises.

Read more here
www.mcdonalds.se

Climate targets

In line with other member companies in the Haga Initiative, McDonald's Sweden has adopted a target of being fossil free by 2030 and that having climate-affecting emissions caused by McDonald's operations being close to zero by 2030.McDonald's has adopted global climate targets approved by the Science Based Targets initiative, covering the entire business by 2030 including the supplier level. McDonald's has also adopted a global target of achieving net-zero emissions by 2050.

Actions taken in 2022

- Food waste at McDonald's Sweden continues to decrease and has been reduced by approximately 40 percent in the last five years.
- The number of charging posts for electric cars was doubled in 2022 - from 100 to over 200 at the end of the year. Electric car charging at McDonald's restaurants in Sweden tripled during the same period.
- McDonald's has continued working on phasing out plastic guest packaging. During 2022, just to mention a few, ice cream cups were changed from plastic to paper, plastic lids for soft drinks were removed for serving in restaurants. In total, the annual consumption of plastic in packaging has been reduced by over 350 tonnes in recent years.

Official sustainability report

McDonald's sustainability reports

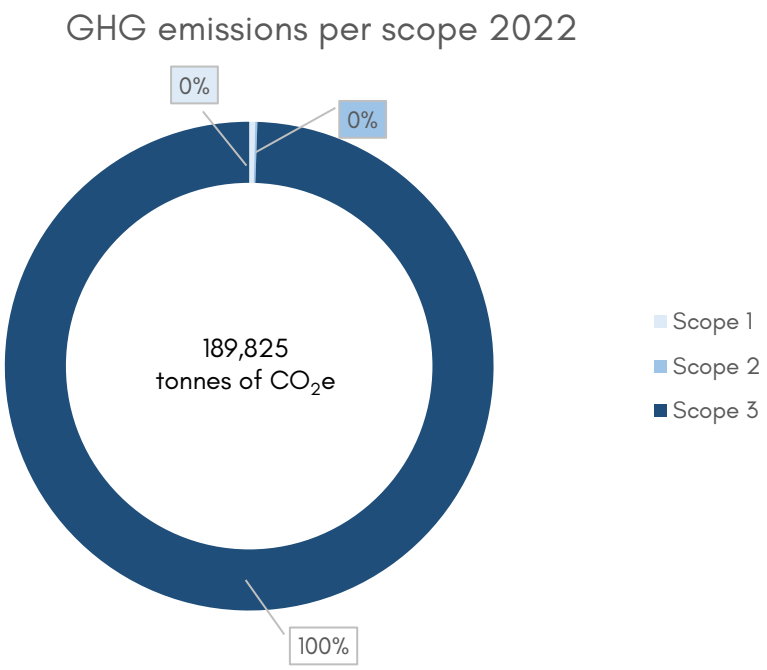


Figure 26. The figure discloses reported emissions per scope for 2022.

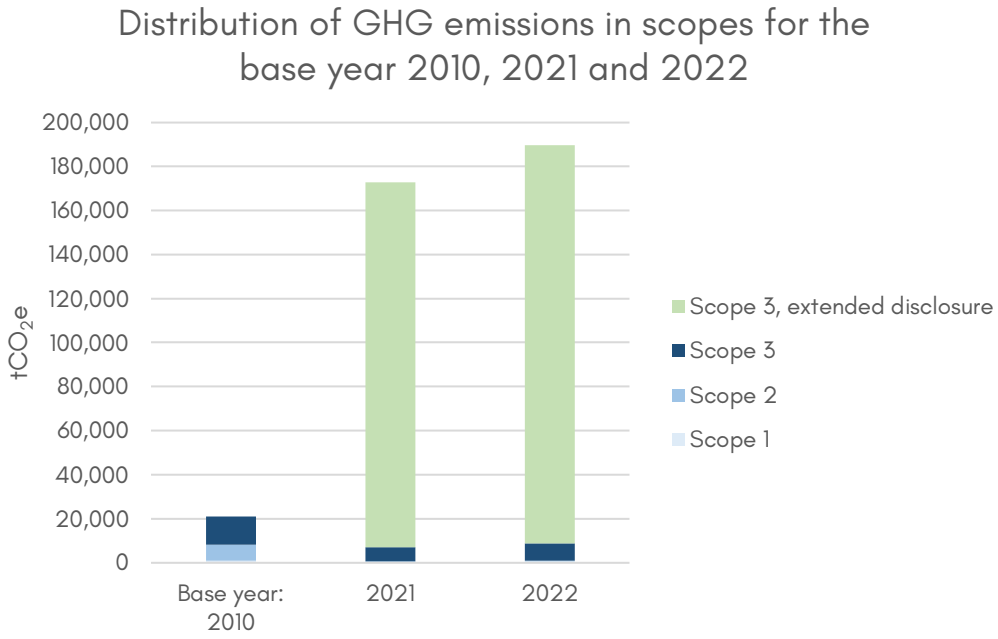


Figure 27. The figure discloses the distribution of scopes for the base year 2010, 2021 and 2022.

Table 15. McDonald's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year 2010	2021	2022	Share of total 2022	Change 2010 - 2022
Scope 1	1,112	274	750	0.4%	-33%
Refrigerants	861	222	686	0.4%	-20%
Cars	251	52	64	0.03%	-74%
Scope 2 [2]	7,139	309	272	0.1%	-96%
Electricity		3	3	0.002%	-
Distict heating		306	269	0.1%	-
Scope 3 (scope of base year)	12,710	6,422	7,894	4%	-38%
3.3 Fuel- and energy-related emissions	3,061	1,005	924	0%	-70%
3.4 Purchased transports and other upstream transports [2]	3,144	912	733	0.4%	-77%
3.5 Waste management	6,078	4,477	6,054	3.2%	-0%
3.6 Business travel	427	28	183		-57%
Extended scope 3 disclosure		165,889	180,909	95%	-
3.1 Purchased goods and services [3]		161,520	176,098	93%	-
3.4 Purchased transports and other upstream transports [4]		4,369	4,811	3%	-
TOTAL (scope of base year 2010)	20,961	7,005	8,916		-57%
TOTAL (scope from 2021)		172,894	189,825		
Carbon offsets					-
TOTAL (incl. carbon offsets)	20,961	172,894	189,825		

Key indicators	Unit	Base year 2010	2021	2022	Change 2010 - 2022
Emissions per customer visit [5]	gCO_2e/guest	215	119	130	-40%
Emissions per month of operation [5]	tonnes of CO_2e/month	6.5	3.2	3.9	-40%
Energy use per customer visit	kWh/guest	1.6	1.5	1.4	-13%

1) Scope 2 is disclosed using the market-based method.
2) Transport for distribution to and from restaurants in Sweden, including the distribution supplier HAVI's subcontractors.
3) Refers to raw materials for preparing the food served in the restaurants and the packaging used to serve the food.
4) Other transports throughout the value chain.
5) Including emissions according to the scope of the base year.

Scope 1

In the table below, McDonald's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	64
Direct biogenic CO_2 emissions	16

Scope 2

The table below displays McDonald's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	289
Location-based method	6,541

McDonald's value chain

McDonald's value chain includes several different stages from farmers who grow crops or raise animals, suppliers who refine and package raw materials, distribution centers that handle the raw materials and take care of the logistics to the restaurants. In the restaurants, the food is prepared and served to guests either to consume the food at the restaurant or choose takeaway. McDonald's encourages all suppliers in the value chain to report their climate impact publicly in CDP.

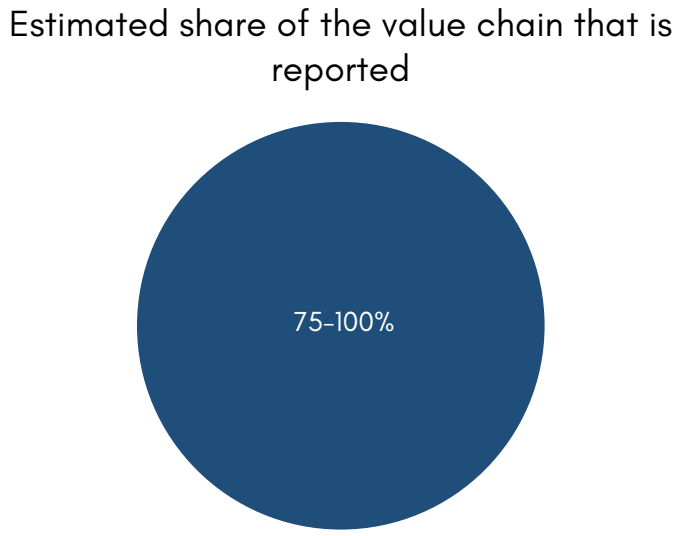


Figure 28. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 16. McDonald's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	176,098	Food, drink and packaging		95		95
	2. Capital goods						
	3. Fuel- and energy-related activities	924			95		95
	4. Upstream transportation and distribution	5,544	Transport for distribution to and from restaurants in Sweden, including the distribution supplier HAVI's subcontractors: 733 Other transports throughout the value chain: 4 811		95		95
	5. Waste generated in operations	6,054			95		95
	6. Business travel	183			95		95
	7. Employee commuting						
	8. Upstream leased assets						
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products						
	11. Use of sold products						
	12. End-of-life treatment of sold products						
	13. Downstream leased assets						
	14. Franchises						
	15. Investments						
	TOTAL	188,803					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)						

Emissions in scope 3 which are currently not included in the reporting

In the reporting of scope 3, the largest part of the impact is reported.

The company's scope 3 target

McDonald's SBTi target means a reduction in emission intensity by 31 percent by 2030. The target will be revised in 2023, after SBTi has set regulations/criterias in place for forestry, land use and agriculture in line with the 1.5-degree target.

The company shows how the target is achieved

The first step is for suppliers to report their climate impact within the framework of CDP and then identify the way forward to reduce climate-impacting emissions.

Analysis and comments

Similar to 2021, McDonald's Sweden reports a climate statement that is expanded compared to the base year 2010. Looking at the extent reported for the base year 2010, emissions have decreased by 57 percent. After emissions decreased relatively much for 2020 and 2021, emissions increased in 2022. For the fully comparable years 2021 and 2022, total emissions increased by 10 percent. For the scope of the base year, the emission between 2021 and 2022 has increased by 27 percent.

In scope 1, the reduction is 33 percent compared to the base year and an increase of 174 percent compared to 2021. The reason for this increase is an increased climate impact from refrigerant leakage. The reason for this is not known, but may vary from year to year and should be considered over a longer cycle.

In scope 2, emissions decrease thanks to a continued decline in emissions from district heating.

In scope 3, emissions for transport to and from the restaurants were further reduced thanks to an increased share of biofuels, which is now close to 90 percent. However, emissions from waste management increased due to increased amounts of waste, where, however, calculated emissions do not take into account that the proportion of plastic in the waste is reduced through measures.

For the purchased raw materials, which are outside the climate target, the emission has increased by 9 percent compared to the previous year as a result of the number of customer visits increasing by 13 percent.

The key number of emissions per customer visit and per operating month has decreased by 40 percent since the base year, which gives an indication that a certain part of the total emission reduction of 57 percent is due to both the number of customer visits and the number of operating months being reduced by approximately 30 percent compared to the base year 2010. Between 2021 and 2022, however, it is the other way around that part of the explanation for the increased emissions between 2021 and 2022 was that the number of customer visits increased by 13 percent and the number of operating months by 5 percent.

Preem is Sweden's largest fuel company and accounts for 80 percent of Sweden's refinery capacity. Preem has approximately 1,500 employees and the business includes production, sales, distribution as well as trading and supply of goods. Preem is currently in the process of restructuring its entire production in order to eventually become completely renewable. For 2022, Preem's turnover was roughly SEK 160 billion.

Read more here www.preem.se

Climate targets

Preem's overarching climate target is to have a climate-neutral value chain by 2035. In addition, during 2022, Preem has adopted a number of intermediate targets until 2030, which include that Preem shall reduce direct greenhouse gas emissions (scope 1) by 50 percent, as well as reduce all greenhouse gas emissions (scope 1, 2 and 3) with 30 percent by 2030.

Official sustainability report

Sustainability report 2022

Actions taken in 2022

- In 2022, Preem adopted intermediate targets towards climate neutrality in 2035, which clarify where the changes need to take place in the operations and contribute to improved operational management in line with the Paris Agreement.
- Established a green financing framework and issued a green bond in order to finance conversion activities towards the goals, and invested SEK 1.3 billion for the production of renewable fuels.
- Selected crude oil suppliers with lower emissions during raw material extraction. This leads to reduced emissions for Preem's indirect emissions from raw material extraction (scope 3, category 1).

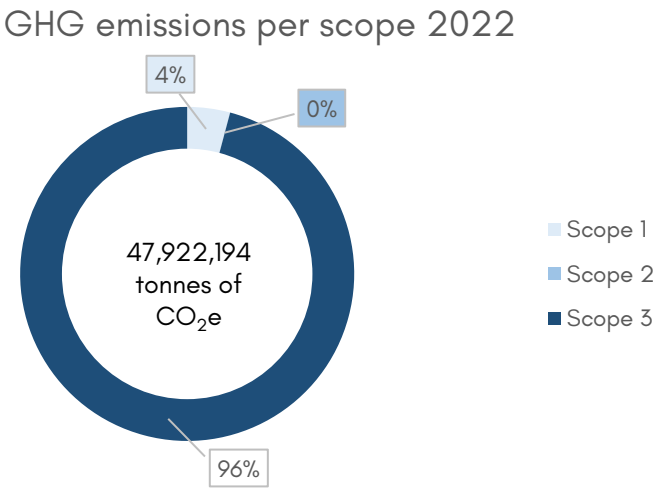


Figure 29. The figure discloses reported emissions per scope for 2022.

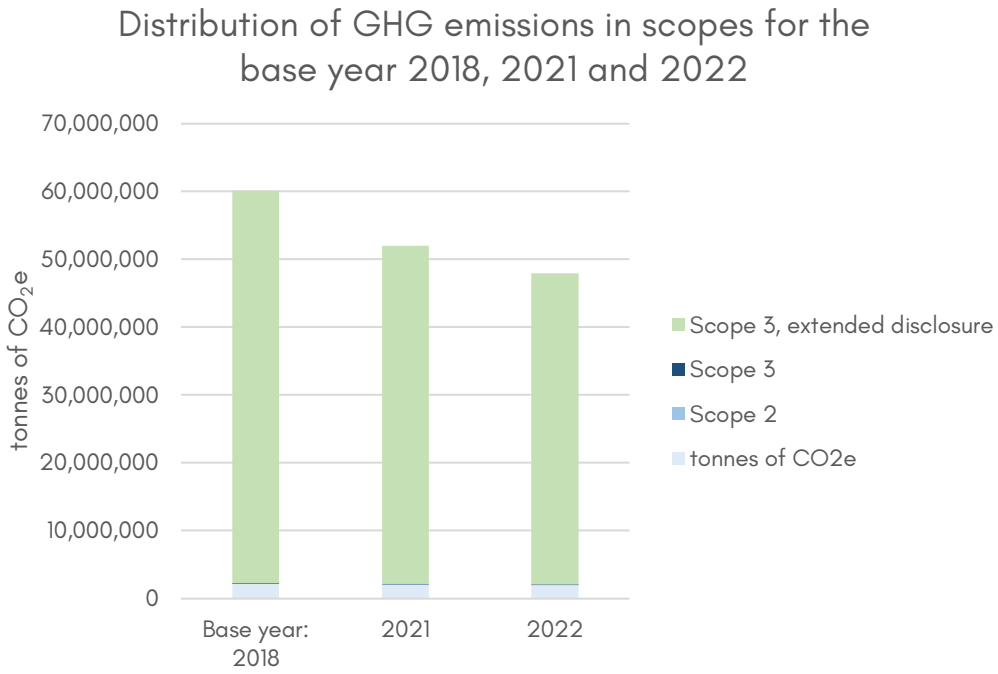


Figure 30. The figure displays the distribution of emissions per scope for base years 2021 and 2022.

Table 17. Preem's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year 2018	2021	2022	Share of total 2022	Change 2018 - 2022
Scope 1	2,161,398	2,121,439	1,976,028	4%	-9%
Own processes	2,161,083	2,121,234	1,975,775	4%	-9%
Own cars	315	144	171	0%	-46%
Heating at staffed stations	0	60	82	0%	-
Scope 2 [1]	151	10,341	10,951	0%	+7139%
Electricity [2]	40	9,935	10,410	0%	+26200%
Distict heating	112	406	541	0%	+384%
Distict cooling	0	0	0	0%	-
Scope 3	57,983,202	49,881,531	45,935,215	96%	-21%
3.1 Purchased goods and services [3]	7,737,493	4,219,000	2,633,060	5%	-66%
3.3 Fuel- and energy-related emissions	64,712	30,097	34,446	0%	-47%
3.4 Purchased transports and other upstream transports [4]	94,774	99,400	94,300	0%	-1%
3.6 Business travel	1,145	34	422	0%	-63%
3.11 Use of sold products [5]	50,083,099	45,533,000	43,172,987	90%	-14%
3.14 Energy use at staffed stations [6]	1,979	0	0	-	-100%
TOTAL (excl. carbon offsets)	60,144,751	52,013,311	47,922,194	100%	-20%
Carbon offsets					
TOTAL (incl. carbon offsets)	60,144,751	52,013,311	47,922,194		

Key indicators	Unit	Base year: 2018	2021	2022	Change 2018 - 2022
Total emissions per turnover [7]	tonnes of CO_2e/ MSEK	579	543	298	-49%

1) Scope 2 is disclosed using the market-based method.
2) For 2021 and 2022, both PREEM-owned and non-PREEM-owned stations are included.
3) Indirect emissions from extraction of raw oil.
4) Purchased transports by truck and ship.
5) Use of sold fuels globally.
6) Stations not owned by Preem.
7) Total emissions.

Scope 1

In the table below, Preem's emissions in scope 1 are reported for fossil carbon dioxide emissions. The biogenic emissions for scope 1 are currently not being reported externally.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	1,976,028

Scope 2

The table below displays Preem's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	10,951
Location-based method	47,128

Preem's value chain

Preem's largest emissions are found downstream in scope 3 within the category "use of sold products" since this category includes the combustion of the fuels and products that Preem produces and sells. There are also emissions upstream within scope 3, mainly from the raw materials Preem buys in and the transports that take place, but also to some extent from energy and fuel-related activities and business trips.

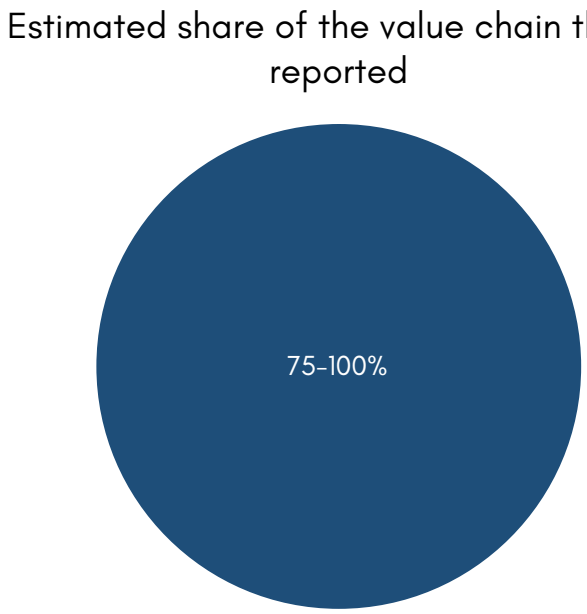


Figure 31. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 18. Preem's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	2,633,060	Indirect emissions from extraction of raw oil: 2 633 060	The scope includes climate emissions from extraction until the product has reached Preem. This includes emissions from extraction in the case of raw materials as well as emissions from extraction, transport and production in the case of finished products (implies double counting of transport emissions in cases where transport is included in this indicator).	100%	Only includes emissions from raw material extraction. Emissions from other products and services are considered to have low materiality.	100%
	2. Capital goods			New and rebuilds are not currently included.		Lack of data.	
	3. Fuel- and energy-related activities	34,446	Production: 19,593 (natural gas LYR) Electricity: 585 (market based) District heating: 21 District cooling: 2				100%
	4. Upstream transportation and distribution	94,300	Road transports (GHG reduction through certificates): 4,300 Sea transports: 90,000	Road transports (without GHG reductions through certificates): 7,160 tonnes CO_2e			93%
	5. Waste generated in operations					Lack of data.	
	6. Business travel	422	Air travel: 390 Train travel: 0,001 Rental cars: 32				0%
	7. Employee commuting			No calculations are made for the moment.		Lack of data.	
	8. Upstream leased assets					Not relevant	
Downstream	9. Downstream transportation and distribution						
	10. Processing of sold products					Not relevant	
	11. Use of sold products	43,172,987	User phase emissions (TTW), Export: 25,049,739 User phase emissions (TTW), Sweden: 15,553,628 User phase emissions (TTW), Norway: 2,569,620		100%		100%
	12. End-of-life treatment of sold products					Not relevant	
	13. Downstream leased assets					Not relevant	
	14. Franchises					Not relevant	
	15. Investments					Not relevant	
	TOTAL	45,935,215					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)					Lack of data.	

Emissions in scope 3 which are currently not included in the reporting

The emissions that are currently not included in Preem's scope 3 calculations are primarily emissions from indirect purchases. These emissions stem mainly from the rebuilding and development of refineries, depots, and stations to ensure renewable production and sales as well as good safety at all Preem's facilities. Remodeling and development require a lot of materials and resources that are not currently included in Preem's scope 3 emissions. Building materials such as concrete and steel, technical equipment and chemicals are examples of indirect purchases whose emissions may be contributing but have not yet been mapped. Preem also does not include other indirect purchases, such as office equipment and IT, even though these are deemed to constitute a very small percentage of the total emissions.

The main reasons for why Preem has not yet included these scope 3 emissions in the climate calculations are the amount of data and the availability of reliable emission factors. Due to its complex business, Preem has a very large variety of purchases and purchase categories. Mapping and analysing all of these purchases is resource-intensive work. In addition, there have not been reliable emission factors that are supplier-specific, which has made it difficult to calculate the emissions with sufficiently high accuracy.

The company's scope 3 target

Preem's overall climate target; having a climate-neutral value chain by the year 2035, which includes scope 3. In scope 3, the majority of emissions occur when using the products. Preem's transition to providing renewable fuels is the most important scope 3 emission reduction measure, indirectly contributing to emission reductions for the entire transport sector. In addition to this, during 2022 Preem has adopted additional intermediate targets until the year 2030. One of these intermediate targets include scope 3, which has the objective of reducing all greenhouse gas emissions (scope 1, 2 and 3) by 30 percent by 2030.

The company shows how the target is achieved

To ensure that Preem meets the high climate targets, a transition plan for the transformation of the production has been developed. It includes Preem's projects, investments, and measures in the transition to renewable production and the associated logistics chain. The plan shows how the estimated volume of renewable production will increase to approximately 5 million cubic meters until 2035 and how the estimated phase-out of fossil crude oil takes place. The volume of fuel produced will thus be considerably less than at present. The transition plan forms the main part of Preem's business strategy and is the starting point for the realization of the climate targets. Activities and targets cover all business areas at Preem.

Analysis and comments

Preem's total emissions compared to the base year 2018 decreased by 20 percent, i.e. roughly 12 million tons of carbon dioxide equivalents. Compared to 2021, the annual emission was 8 percent or just over 4 million tonnes lower. The background to this is that all the largest items in the climate statement (refinery's direct emissions, extraction of raw materials and not least the use phase for sold fuel) decrease both compared to the base year 2018 and compared to the previous year.

Thanks to the reduction in emissions from the refinery, scope 1 emissions were reduced by 9 percent compared to the base year and by 7 percent compared to 2021.

Emissions in scope 2 increase sharply, over 7,000 percent, compared to the base year. The background to this is that, for 2021 and 2022, the electricity consumption of non-Preem-owned supermarkets is also included in scope 2. As these have their own electricity contracts, which are not known to Preem, Preem has calculated the emission with an emission factor for Nordic residual mix. So even though that electricity consumption only accounts for 4 percent of Preem's total electricity consumption, it has a large impact on scope 2 emissions, but not on Preem's total emissions.

Emissions from purchased crude oil have fallen sharply; -66 percent compared to the base year and by 38 percent compared to 2021.

The emission from the use phase of sold fuel has decreased by approximately 14 percent (almost 7 million tons of CO_2e) compared to the base year and by 5 percent (2.4 million tons of CO_2e) compared to the previous year. The contributing reason for this is that the amount of fossil fuels sold is decreasing.

The key number emissions per turnover is difficult to draw any conclusions from because Preem's turnover is largely controlled by the spot price of crude oil. The combination of reduced emissions and an increased price of crude oil contributed to the key figure falling by 49 percent compared to the base year and by 45 percent compared to 2021.

STENA RECYCLING

Stena Recycling is Sweden's leading recycling company and a comprehensive partner for developing sustainable circular solutions within all types of operations. With 1,900 dedicated employees and 90 facilities across the country, Stena Recycling creates long-term solutions every day for both customers and society at large. The company has a turnover of SEK 14.5 billion.

Read more here
http://www.stenarecycling.se

Climate targets

Stena Recycling AB undertakes to reduce the absolute emissions of greenhouse gases in scope 1 and 2 by 50 percent until 2030 from the base year 2021.

Stena Recycling AB also undertakes to reduce the absolute emissions of greenhouse gases in scope 3 by 25 percent by 2030 from the base year 2021.

Official sustainability report

Annual and sustainability report 2021-2022

Actions taken in 2022

- In 2022, Stena Recycling began the work on developing a more detailed strategy to reach the climate targets by 2030. Important areas that have been identified are climate-smart purchases, conversion to fossil-free logistics, and investments for increased material recycling.
- Work on transition continues where fossil fuels are phased out, in the near term mainly through the use of biofuels. The effect compared to the previous year is that the use of HVO as fuel for work machines and own vehicles has increased significantly. Biogas and other biofuels are also used to a greater extent than before. At the same time, work is underway for a successive electrification of the company's construction machinery. The long-term goal is for a significant part of Stena Recycling's machines and vehicles to be powered by electricity.
- In 2022, Swerec's plastic recycling facility in Lanna was acquired, which expands the company's capacity and enables sorting and material recycling of more plastic qualities. This is part of continued investments to increase capacity for material recycling and processing.

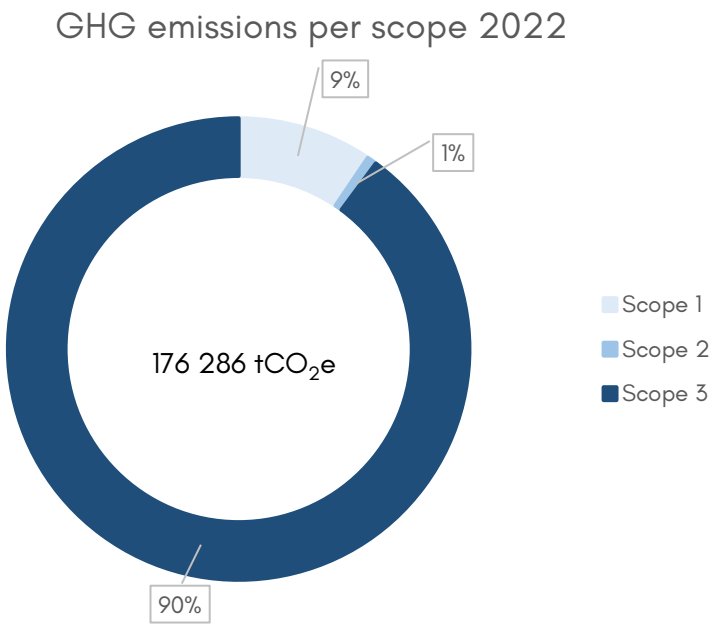


Figure 32. The figure discloses reported emissions per scope for 2022.

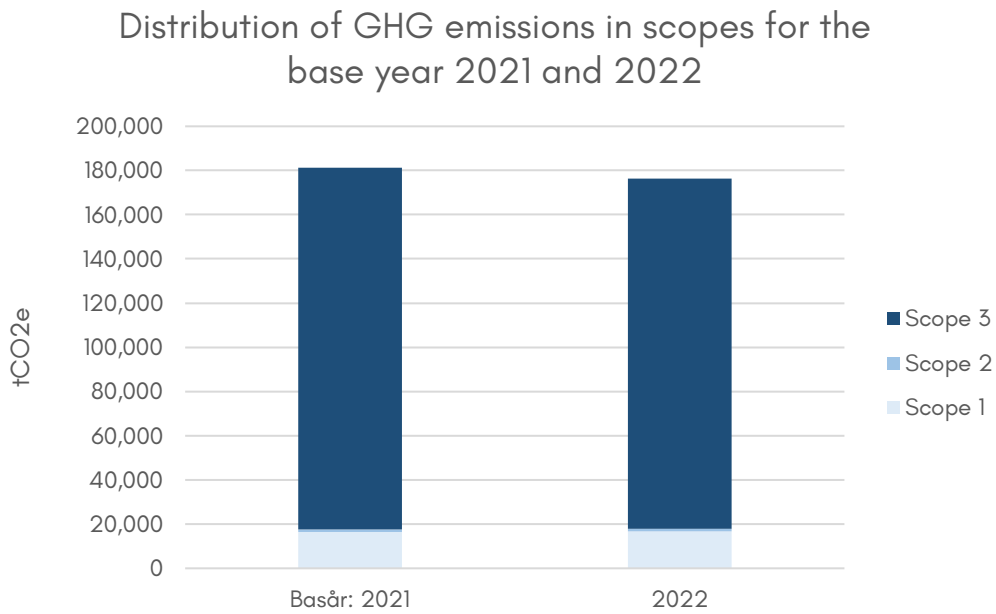


Figure 33 The figure discloses the distribution of scopes for the base year 2021 and 2022.

Table 19. Stena Recycling's emissions 2022.

GHG emissions (tonnes of CO_2e)	2021	2022	Share of total 2022	Change 2021-2022
Scope 1	16,394	16,658	9%	2%
Own processes	1,739	1,881	1%	8%
Own heating	451	1,753	1%	289%
Own transports	3,257	2,311	1%	-29%
Own working machines	6,704	6,357	4%	-5%
Own cars	490	962	1%	96%
Fugitive emissions	3,754	3,394	2%	-10%
Scope 2 [1]	1,310	1,192	1%	-9%
Electricity	152	152	0.1%	0%
Distict heating	1,159	1,040	1%	-10%
Scope 3	163,599	158,437	90%	-3%
3.3 Fuel- and energy-related emissions	5,201	4,772	3%	-8%
3.4 Purchased transports and other upstream transports	77,282	83,564	-	-
3.5 Waste management	10,215	10,721	6%	5%
3.6 Business travel [2]	145	587	0.3%	305%
3.7 Employee commuting [3]	1,873	2,085	1%	11%
3.9 Downstream transports (not purchased by Stena Recycling)	13,638	14,747	-	-
3.11 Use of sold products	54,971	41,723	-	-
3.13 Downstream leased assets	274	238	0.1%	-13%
TOTAL (excl. carbon offsets)	181,304	176,286	100%	-3%
Carbon offsets				
TOTAL (incl. carbon offsets)	181,304	176,286		-3%
Scope 1	16,394	16,658	9%	2%
Own processes	1,739	1,881	1%	8%

Key indicators	Base year 2021	2022	Change 2021 - 2022	Unit
Emissions per amount of material collected	0.052	0.050	-4%	tonnes of CO_2e/tonnes of collected material

1) Scope 2 is disclosed using the market-based method.
2) Air travel, rental cars and other.
3) Travel between home and work.

Scope 1

In the table below, Stena Recycling's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	15,650
Direct biogenic CO_2 emissions	10,427

Scope 2

The table below displays Stena Recycling's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	1,192
Location-based method	6,748

Stena Recycling's value chain

Emissions in scope 3 occur mainly at the beginning of the value chain from purchased goods and services and during the production and transport of fuels. Emissions at the end of the value chain arise from downstream transport, leased assets and when sold products are consumed by customers.

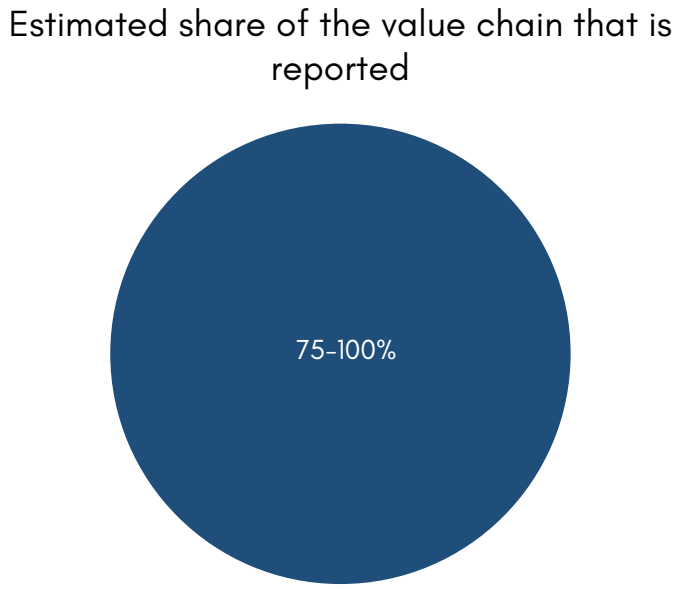


Figure 34. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 20. Stena Recycling's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	112		Consumption of paper and water.		Data lacks for other goods and services.	100%
	2. Capital goods	2,747		Personal IT equipment and cell phones.		Personal equipment, approx. 3 years of usage. Thereafter back to supplier for reusage.	100%
	3. Fuel- and energy-related activities	267	Electricity: 134 Heating and cooling: 133	Upstream emissions related to energy consumption (electricity, heating and cooling) in Swedbank's premises.			100%
	4. Upstream transportation and distribution	0		Safety transports.		Has decreased in Sweden due to decreased usage of cash in the society.	100%
	5. Waste generated in operations	31		Waste from Swedbank´s offices.			100%
	6. Business travel	2,134	Air travel: 1 577 Hotel stays: 138 Taxi and rental cars: 17 Car travel: 401 Train and bus travel: 1			Fair data quality. Air travel is the emission source that has varied most since 2019. Swedbank works hard to maintain the low emissions from air travel through digital solutions.	100%
	7. Employee commuting	10	Remote working: 10		Employee commuting: Data for distance and vehicle type is missing. The calculation is based on generic values from EU.		0.16%
	8. Upstream leased assets					Not relevant	
Downstream	9. Downstream transportation and distribution					Not relevant	
	10. Processing of sold products					Not relevant	
	11. Use of sold products					Not relevant	
	12. End-of-life treatment of sold products					Not relevant	
	13. Downstream leased assets					Not relevant	
	14. Franchises					Not relevant	
	15. Investments	6,757,126	Oil and gas: 4,629,558 Power production: 771,077 Mortgage Baltic states: 540,291 Real estate Baltic states: 278,268 Mortgage Sweden: 230,677 Steel production: 167,952 Real estate: 139,303		77%		100%
	TOTAL	6,762,427					

Emissions in scope 3 which are currently not included in the reporting

Emissions for the categories 3.1 purchased goods and services and 3.2 capital goods cannot be reported this year due to ongoing work with mapping and revision of calculation methodology. These two categories are estimated to make up 15 percent of the total emissions in scope 3.

The company's scope 3 target

Stena Recycling AB undertakes to reduce the absolute emissions of greenhouse gases in scope 3 by 25 percent by 2030 from the base year 2021.

The target limit for scope 3 is limited to emissions related to purchased transport (paid by Stena or by an external party) and purchased goods, services, and capital goods.

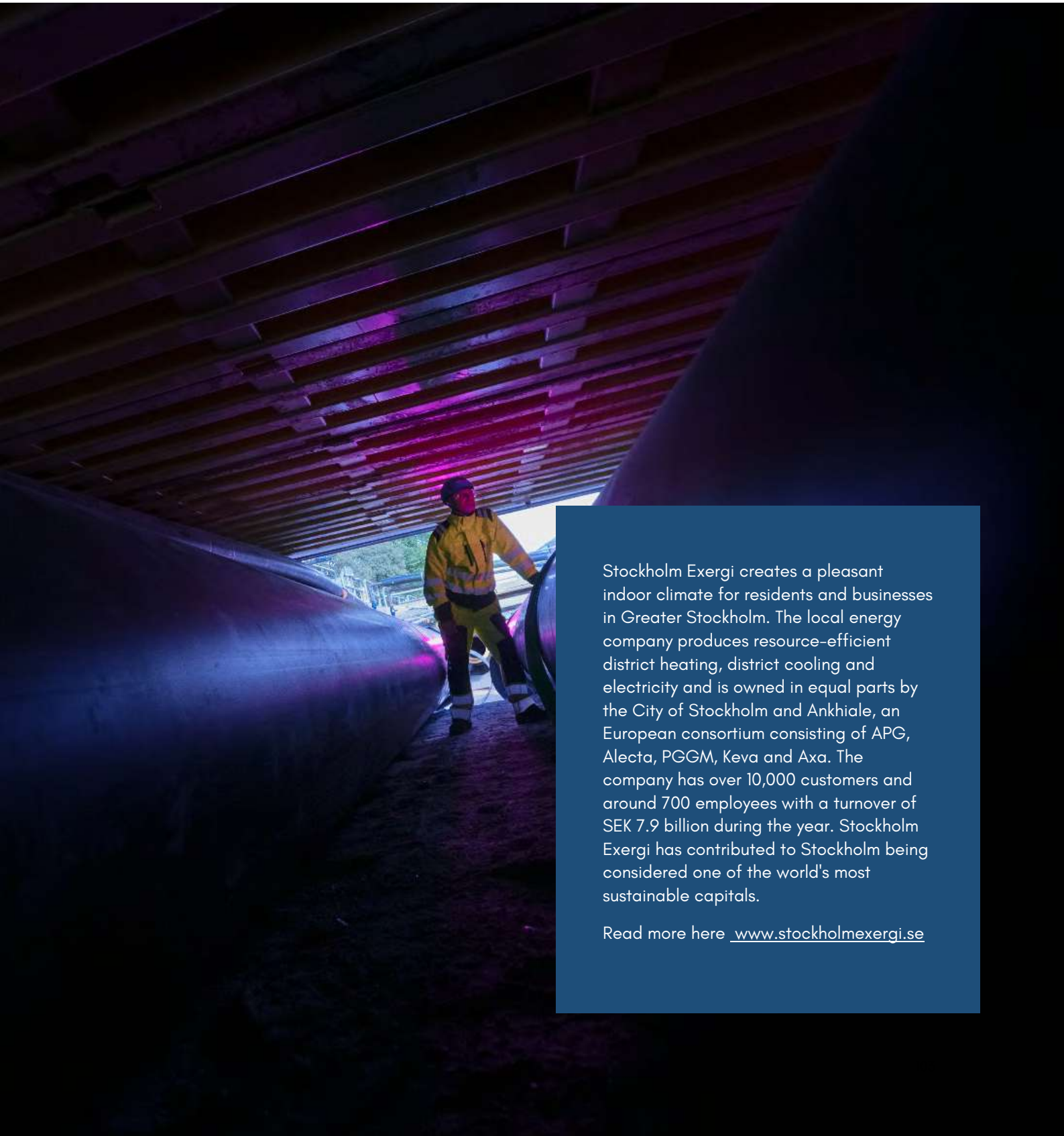
The company shows how the target is achieved

Goal fulfillment is largely dependent on a society-wide transformation of transport and requires national and European investments in, among other things, expansion of charging infrastructure, access to fossil-free fuel and increased access to railways. Initiatives are also required to increase the use of recycled raw materials and to reward recycled raw materials over virgin ones. To achieve the goal, Stena Recycling works with continuous review of logistics solutions to achieve higher efficiency, as well as further develops collaborations with contracted haulers and shipping companies for conversion to fossil-free transport of goods by road and at sea. Stena Recycling also focuses on recycled material in its own purchases, such as material in flatbeds, containers, and packaging. In order to ensure and expand the capacity for material recycling and processing, investments are made in new operations and processes.

Analysis and comments

In total, Stena has increased the use of clean renewable fuels from 18% to 27% between the years 2021 and 2022. In 2022, 42% of the fuel in its own trucks and 19% of the fuel in its own working machines was clean renewable fuels. During 2021, measurements of landfill gas have been carried out, which has meant a better basis for calculating emissions from Stena's landfills. Previously reported emissions have relied on the Methane Commitment (MC) method, which means that future emissions are calculated based on a life cycle perspective. The new values represent actual emissions during the reporting period. The emissions are calculated using the First Order Decay (FOD) method and have been calibrated based on measurement data. Due to a major fire that affected two of Stena's facilities, temporary heating systems with heating oil and diesel were required during the year. This has contributed to a significant increase in emissions from heating. A new category has been added to scope 3 reporting relating to the use of sold products. Stena sells recycled heating oil and reclaimed wood, which contributes to emissions from customers who buy the products.

stockholm exergi



Stockholm Exergi creates a pleasant indoor climate for residents and businesses in Greater Stockholm. The local energy company produces resource-efficient district heating, district cooling and electricity and is owned in equal parts by the City of Stockholm and Ankhiale, an European consortium consisting of APG, Alecta, PGGM, Keva and Axa. The company has over 10,000 customers and around 700 employees with a turnover of SEK 7.9 billion during the year. Stockholm Exergi has contributed to Stockholm being considered one of the world's most sustainable capitals.

Read more here www.stockholmexergi.se

Climate targets

Stockholm Exergi's climate target is that the energy production shall bind more carbon dioxide than what is being released along the entire value chain. The goal is achieved with Bio-CCS to create permanent minus emissions that are estimated to be put into operation at the end of 2026. The company's strategy is to reduce emissions by phasing out fossil oil and after 2030 introduce CCS technology in its final treatment of residual waste with energy recovery. Residual emissions will then be neutralized by permanent minus emissions.

Official sustainability report

Annual and sustainability report 2022

Actions taken in 2022

- During the year, Stockholm Exergi has carried out studies that show how residual waste treated with energy recovery can change in composition and properties if all material recovery targets are achieved. The amount of residual waste generated in Stockholm can be reduced by almost 50 percent.
- Stockholm Exergi has carried out consultations with local residents and the public, the plan is to submit an application for an environmental permit in March 2023 to build a full-scale bio-CCS plant at Värtaverket.
- In 2022, the sales of Stockholm Exergi's digital energy services hit a record with over 600 newly signed service contracts. Over 10,000 apartments were connected to the digital heating optimization concept that helps customers save energy.

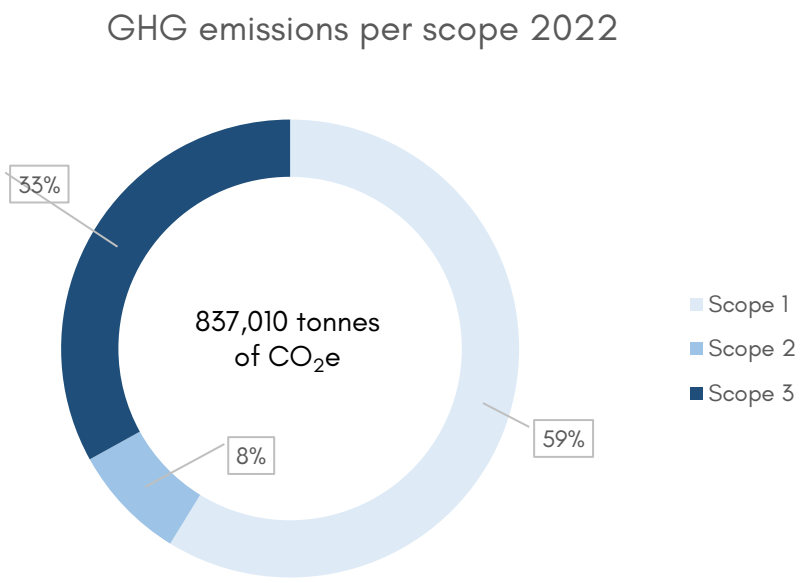


Figure 35. The figure discloses reported emissions per scope for 2022.

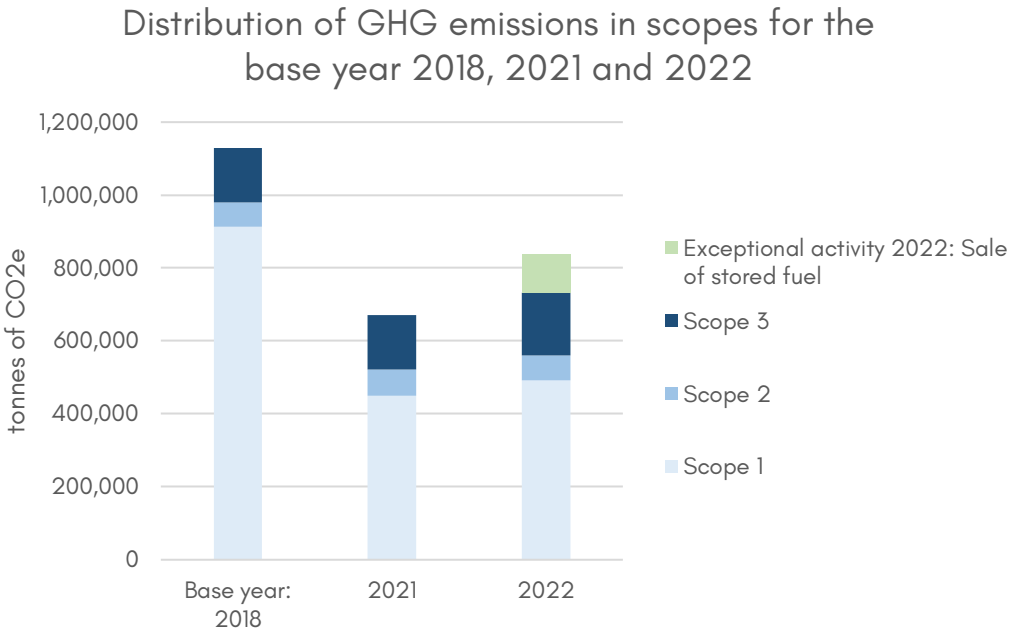


Figure 36. The figure disclose the distribution of scopes for the base year 2018, 2021 and 2022.

Table 21. Stockholm Exergi's emissions 2022.

GHG emissions (tonnes of CO_2e)	Base year: 2018	2021	2022	Share of total 2022	Change 2018 - 2022
Scope 1	913,238	450,193	491,914	59%	-46%
Production	912,957	450,036	491,813	59%	-46%
- Carbon dioxide from coal combustion	461,020	0	0	-	-100%
- Carbon dioxide from fossil oil combustion	95,859	51,924	70,855	8%	-26%
- Carbon dioxide from incineration of fossil fraction of residual waste	303,737	377,471	400,068	48%	+32%
- Other greenhouse gases [1]	52,342	20,641	20,890	2%	-60%
Own cars	281	158	101	0.01%	-64%
Scope 2 [2]	67,389	71,645	68,555	8%	+2%
Electricity	67,389	71,645	68,555	8%	+2%
Scope 3	148,840	148,751	276,541	33%	+86%
3.1 Purchased goods and services [3]	28,796	28,796	28,796	3%	+0%
3.3 Production by another district heating producer but supplied by Stockholm Exergi [4]	47,955	76,834	84,285	10%	+76%
3.3 Production and distribution of energy and vehicle fuels [5]	71,910	43,097	59,228	7%	-18%
3.6 Business travel	179	24	36	0.004%	-80%
3.11 Use of sold fuels [6]	0	0	104,196	12%	-
TOTAL (excl. carbon offsets)	1,129,468	670,589	837,010	100%	-26%
Carbon offsets	-351,160	-105,890	-88,446		
TOTAL (incl. carbon offsets)	778,309	564,699	748,565		-4%

Key indicators	Unit	Base year: 2018	2021	2022	Change 2018 - 2022
Emissions from own production [7]	gCO_2e/kWh	108	65	72	-33%
Emissions per energy delivery before carbon offsetting [8]	gCO_2e/kWh	111	68	77	-30%
Emissions per energy delivery after carbon offsetting	gCO_2e/kWh	76	57	68	-11%

1) Nitrous oxide, methane, and refrigerants
2) Scope 2 is disclosed using the market-based method.
3) Chemicals, additives, working machine services and other purchased goods. Calculated for 2022 but an assumption is made that the emissions in 2018 and 2021 are equal to 2022.
4) Emissions from producer other than Stockholm Exergi in production collaboration for district heating. The emissions include both emissions from the plants and from the extraction and distribution of fuels to these plants.
5) Refers to, in addition to the production and distribution of fuels, the transport of additives and ash as well as upstream emissions for purchased electricity and fossil emissions from aerial thermography
6) Emissions when sold fuels are used by the customer.
7) Total emissions except for district heating that is produced by another producer and emissions from sold fuels.
8) Total emissions except for emissions from sold fuels.

Scope 1

In the table below, Stockholm Exergi's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	541,880
Direct biogenic CO_2 emissions	2,071,229

Scope 2

The table below displays Stockholm Exergi's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	68,555
Location-based method	73,856

Stockholm Exergi's value chain

Emissions in scope 3 occur primarily at the beginning of the value chain from the production and transport of fuels and from district heating production from cooperating district heating producers. Emissions also occur at the end of the value chain from transport of residual products from the business.
As of 2022, Stockholm Exergi has expanded scope 3, category 1, Purchased goods and services.

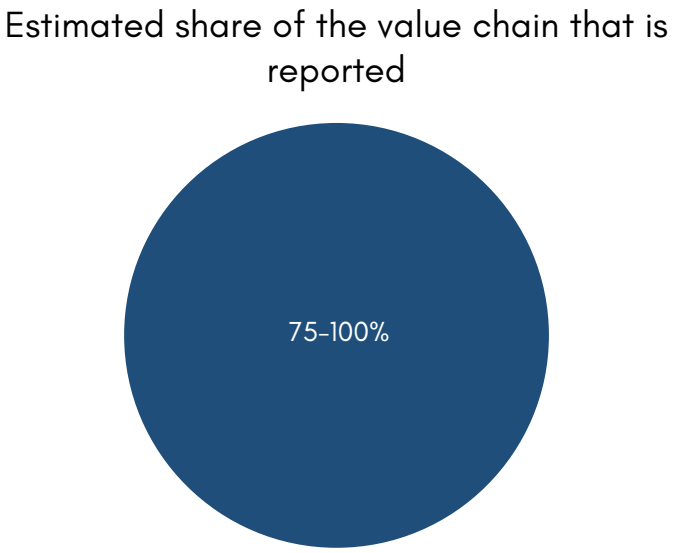


Figure 37. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 22. Stockholm Exergi's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	28,796	Chemicals and additives: 7 345 Working machine services: 411 Other purchased goods: 21 041		95%	Lack of data	0%
	2. Capital goods			Not disclosed		Lack of data	
	3. Fuel- and energy-related activities	143,513	Purchased heat from other producers and sold by Stockholm Exergi: 84 285 Production of fuels: 33 494 Transport of fuels: 24 310 Other transports: 1 386 Aerial thermography: 6 Cars in duty (upstream): 32		100%		100%
	4. Upstream transportation and distribution						
	5. Waste generated in operations		Waste transport is included in 3.3.				
	6. Business travel	36	Air travel.		100%		0%
	7. Employee commuting			Not disclosed		Cars in duty is included in scope 1	
	8. Upstream leased assets			Not relevant.		Not relevant.	
Downstream	9. Downstream transportation and distribution		Included in 3.3.				0%
	10. Processing of sold products			Not relevant.		Not relevant.	
	11. Use of sold products	104,196	Sold fuels from storage.		100%		100%
	12. End-of-life treatment of sold products			Not relevant.		Not relevant.	
	13. Downstream leased assets			Not relevant.		Not relevant.	
	14. Franchises			Not relevant.		Not relevant.	
	15. Investments			Not relevant.		Not relevant.	
	TOTAL						
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)			Not disclosed		Lack of data.	

Emissions in scope 3 which are currently not included in the reporting

Capital goods, i.e. emissions for the construction of new facilities, are currently not included.

The company's scope 3 target

The process to develop targets is ongoing.

The company shows how the target is achieved

The process to develop targets is ongoing.

Analysis and comments

Unlike the other companies in the Haga Initiative, Stockholm Exergi has its largest share of emissions in scope 1; 59 percent. For the base year, that percentage was even higher, 80 percent, and in 2021, the share of emissions in scope 1 was 67 percent. The reason it was so high in 2018 was mainly because coal combustion, which accounted for around 50% of scope 1 emissions, was still there. That the proportion is lower in 2022 than in 2021 is mainly due to the emission in scope 3 being unusually high due to a single event; that the remaining coal stock has been sold and that the emission when this coal is burned is reported in Stockholm Exergis scope 3. The emission for this coal is just over 100,000 tons of CO_2e and in 2022 accounts for 12 percent of Stockholm Exergis' emissions.

Emissions in scope 1 have decreased by 46 percent since the base year of 2018, largely thanks to the cessation of coal combustion. Compared to the base year, emissions from burning fossil oil have also decreased. However, the emission from the treatment of residual waste has increased by almost 100,000 tonnes of CO_2e, or 32 percent. This is due to two reasons, on the one hand, the amount of waste that is treated has increased by approximately 10 percent, and on the other hand, the emission per ton of treated residual waste has increased by approximately 20 percent. The reason for the latter is primarily an increased proportion of plastics of fossil origin in the residual waste. However, the increase between 2021 and 2022 is solely due to an increased amount of residual waste.

In addition to the additional emissions for the use of sold coal, emissions for purchased goods and services have also been added and estimated to be constant over the reported years. Approximately 10 percent of Stockholm Exergi's total emissions are accounted for by other district heating producers, whose heat is delivered in Stockholm Exergi's district heating network. The emission in this category has increased and to some extent is also due to the fact that the emission per ton of residual waste has increased in Söderenergi's and E.ON's waste incineration plants.

Emissions in the entire value chain have decreased by 26 percent since the base year 2018 but increased by 25 percent compared to 2021. Excluding the extraordinary event with the sale of the fuel, emissions have decreased by 35 percent compared to the base year and increased by 9 percent compared to 2021.

The production and delivery key figures have decreased by around 30 percent compared to the base year and increased by around 12 percent compared to 2021. In these key figures, however, the sale of the fuel has been excluded to describe the operational activities.

Swedbank

Swedbank provides the people and companies the opportunity to create a better future through a vision of a society that is financially sustainable and sound. Swedbank is the leading bank with over 7 million private customers and 550,000 corporate customers in four home markets Estonia, Latvia, Lithuania, and Sweden. Swedbank is also active in the rest of the Nordic countries, the US and China. Together with 9,400 employees in Sweden, Swedbank works to make the financial life easier.

Read more here www.swedbank.com

Climate targets

Swedbank's climate target for its own operations is to reduce the direct emissions of greenhouse gases by 60 percent by the year 2030 compared to 2019 (scope 1, 2 and 3).

Swedbank has also adopted climate targets for the credit portfolio until the year 2030. The targets are in line with the 1.5-degree target and cover the sectors: mortgages, commercial real estate, power generation, oil and gas and steel. This is part of Swedbank's commitment within the Science Based Targets initiative and the Net-Zero Banking Alliance

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Actions taken in 2022

- During the year, Swedbank has worked proactively to support the bank's customers in the transition to reduce greenhouse gas emissions.
- During 2022, Swedbank has set targets for scope 3, category 15; investments. The climate targets include: mortgages, commercial real estate, power generation, oil, gas and steel. They are selected based on their impact on the climate, the bank's portfolio exposure and available data.
- Swedbank has continued to develop products and services that can contribute to achieving the targets by 2030.
- Swedbank continues to work actively to reduce the environmental impact from its direct emissions, including from business trips. Internal goals exist at group and unit level with a focus on increasing the proportion of digital meetings via platforms to replace travelling.

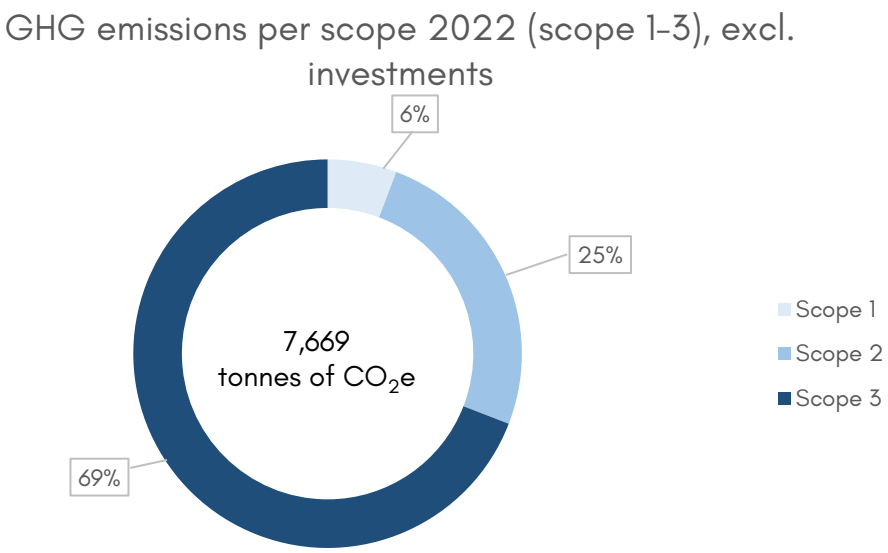

Figure 38. The figure discloses reported emissions per scope for 2022 the extent reported, excluding scope 3 cat. 3.15; Investments.

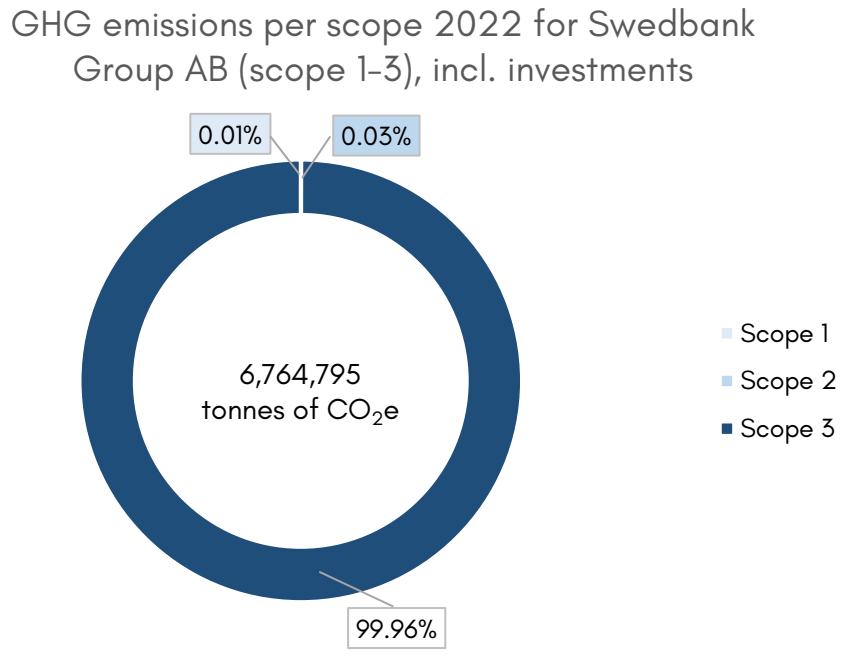

Figure 39. The figure discloses the emissions in 2022 distributed by scope with the scope reported, including scope 3 cat. 3.15; Investments. The figures apply to Swedbank Group AB.

Table 23. Swedbank's emissions 2022.

GHG emissions (tonnes of CO_2e)	2022	Share of total 2022
Scope 1	441	0.007%
Refrigerants	10	0.000%
Own cars	431	0.006%
Scope 2 [1]	1,927	0.028%
Electricity	713	0.011%
Distict heating	1,214	0.018%
Scope 3, excl. Investments	5,301	0.078%
3.1 Purchased goods and services [2]	112	0.002%
3.2 Capital goods [3]	2,747	0.041%
3.3 Fuel- and energy-related emissions	267	0.004%
3.4 Purchased transports and other upstream transports	0	0.000%
3.5 Waste management	31	0.000%
3.6 Business travel [4]	2,134	0.032%
3.7 Employee commuting [5]	10	0.000%
TOTAL (excl. carbon offsets)	7,669	0.113%
Carbon offsets [6]	6,757,126	99.887%
TOTAL (incl. carbon offsets)	6,764,795	

Key indicators	Unit	2022
GHG emissions per employee (excl. investments)	tonnes of CO_2e/employee	1.9

1) Scope 2 is disclosed using the market-based method.
2) Office supplies.
3) Computers, screens, cell phones and other smaller electronics.
4) Travel with air, train, hotel, cars, taxi and buses.
5) Travel between home and office.
6) The figures refer to Swedbank Group AB. Swedbank does not report the emissions data for investments per country. Emissions based on data from 2021.

Scope 1

In the table below, Swedbank's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic emissions.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	431
Direct biogenic CO_2 emissions	245

Scope 2

The table below displays Swedbank's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	1,927
Location-based method	2,523

Swedbank's value chain

Swedbank's direct emissions in scope 3 (excl. investments) comes from business trips, security transports, paper consumption, water consumption, IT equipment and telephones, and waste. Of these emission sources, business trips, IT equipment and telephones are the most significant.

Swedbank's scope 1 and 2 emissions have been relatively unchanged in recent years, where scope 1 is approximately 450 tonnes and scope 2 approximately 5,000 tonnes.

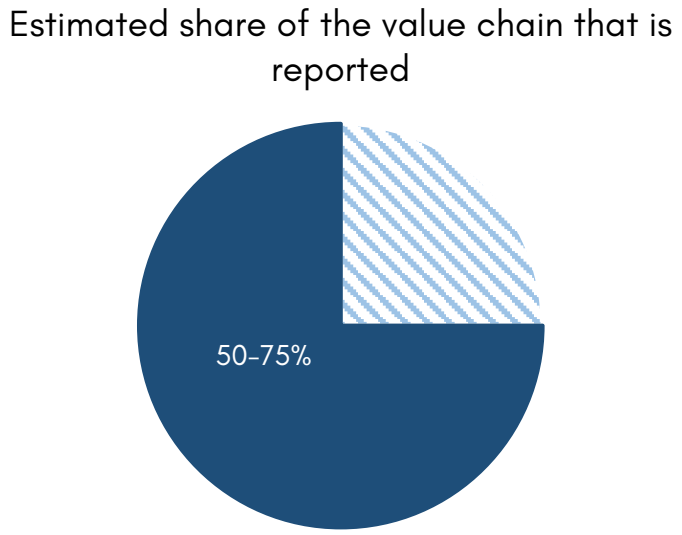

Figure 40. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 24. Swedbank's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Uppströms	1. Purchased goods and services	112		Consumption of paper and water.		Data lacks for other goods and services.	100%
	2. Capital goods	2,747		Personal IT equipment and cell phones.			100%
	3. Fuel- and energy-related activities	267	Electricity: 134 Heating and cooling: 133	Upstream emissions related to energy consumption (electricity, heating and cooling) in Swedbank's premises.			100%
	4. Upstream transportation and distribution	0		Safety transports.			100%
	5. Waste generated in operations	31		Waste from Swedbank´s officies.			100%
	6. Business travel	2,134	Air travel: 1,577 Hotel stays: 138 Taxi and rental cars: 17 Car travel: 401 Train and bus travel: 1				100%
	7. Employee commuting	10	Remote working: 10				
	8. Upstream leased assets					Not relevant	
Nedströms	9. Downstream transportation and distribution					Not relevant	
	10. Processing of sold products					Not relevant	
	11. Use of sold products					Not relevant	
	12. End-of-life treatment of sold products					Not relevant	
	13. Downstream leased assets					Not relevant	
	14. Franchises					Not relevant	
	15. Investments	6,757,126	Oil and gas: 4,629,558 Power production: 771,077 Mortgage Baltic states: 540,291 Real estate Baltic states: 278,268 Mortgage Sweden: 230,677 Steel production: 167,952 Real estate: 139,303		77%		100%
	TOTAL	6,762,427					

Emissions in scope 3 which are currently not included in the reporting

In Swedbank's first set of reduction targets for financed emissions, five sectors are covered: mortgages, commercial real estate, power generation, oil and gas and the steel sector, based on their impact on the climate, the bank's portfolio exposure and available data. This delimitation means that Swedbank includes 77 percent of the loan portfolio's volume.

Swedbank's objective is to expand the reporting of the bank's financed emissions to include more sectors. The biggest challenge is the availability of data, especially for scope 3. Swedbank is dependent on information from its customers, various authorities, and available methods for calculating emissions. Swedbank will continuously follow up on and update its climate goals.

The company's scope 3 target

Swedbank's climate target for the indirectly financed emissions (via Swedbank's financing) covers a total of 77 percent of Swedbank's loan volume exposure. The base year is 2019 to exclude any pandemic-related effects on Swedbank's portfolio.

The targets are developed using scientific methods and the sectors have been chosen based on their impact on the climate, the bank's portfolio exposure and available data. In the process to develop the targets, baselines for current emission levels have been calculated using a method developed by the organization Partnership for Carbon Accounting Financials (PCAF). Based on the baselines, sector-specific and science-based targets have been developed that indicate how the credit portfolio needs to change for the financed emissions to decrease in line with global climate targets.

Climate targets for the loan portfolio for 2030

- Mortgage: the goal is to reduce the financed emission intensity ($kgCO_2e/m2$) by 39 percent
- Commercial properties: the goal is to reduce the financed emission intensity ($kgCO_2e/m2$) by 43 percent.
- Power production: the goal is to reduce the financed emission intensity (tCO_2e/MWh) by 59 percent.
- Oil and gas (exploration, production and refining): the goal is to reduce the absolute financed emissions (tCO_2e) by 50 percent.
- The steel sector: the goal is to reduce the financed emission intensity (tCO_2e/ton) by 29 percent.

The company shows how the target is achieved

To achieve the targets, Swedbank focuses on:

- risk management in the identified sectors; mortgages, commercial real estate,
- power generation, oil and gas and the steel sector
- product development and consultancy to support the movement within the respective sector
- develop and improve internal systems for storage and availability of relevant data
- improve calculations and increase data quality

Swedbank's policies regulate the financing of fossil fuels, and include, among other things, restrictions regarding coal mines and power production, exploitation of new oil or gas deposits and oil refineries.

Analysis and comments

This is the first year that Swedbank reports its climate disclosure in the Haga Initiative. The climate disclosure contains all relevant emission sources and therefore gives a good picture of Swedbank's operations in Sweden. As expected, emissions from financing dominate with as much as 99.8 percent of emissions. Second come emissions to manufacture capital goods such as IT and cell phones (20 percent excl. investments), followed by business trips (15 percent excl. investments).

Emissions in scope 1, which account for 3 percent of emissions, are dominated by passenger cars. The emissions in scope 2, which account for 14 percent of the remaining emissions, are distributed with approximately one third from purchased electricity and two thirds from district heating.

Of the financed emissions, which apply to 2021, oil and gas account for 69 percent of the emissions, followed by power production that account for 11 percent, mortgages that account for 11 percent and other that account for 9 percent. Compared to the previous year, 2020, the emission has decreased by approximately 1.3 million tonnes of carbon dioxide equivalents.

white

Sara kulturhus, Skellefteå. Henrik Rosenqvist

White Arkitekter is one of Scandinavia's leading architectural offices, working with sustainable architecture, design and urban development. White Arkitekter is an employee-owned architecture collective with approximately 700 employees with a presence in Sweden, Norway, Great Britain, Germany, Canada and East Africa. During 2022, the company had a turnover of SEK 760 million. In addition to architecture, White Arkitekter offers services in sustainability, project management, digital design, building care and visualization. The vision is that by 2030, all White's projects will be strong in form and climate neutral.

Read more here
https://whitearkitekter.com/se/

Climate targets

By 2030, White's goal is for the company's CO_2e emissions to be reduced by 50 percent compared to 2018 (energy, travel, purchases, and waste). All design assignments shall be climate neutral or better (applies to buildings) and the climate impact of prescribed materials shall be 50 percent lower than the reference value for 2023.

By 2023, the goal is that the company's CO_2e emissions are reduced by 30 percent compared to 2018 (energy, travel, purchases and waste) and that 30% of the project assignments (applies to buildings) are climate neutral or better.

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Actions taken in 2022

- During 2022, all of White's study trips have been carried out by train or bus. (This can be compared to 2018 when these were carried out by air and gave rise to 338 tonnes of CO_2e).
- The number and percentage of business trips by air have decreased.
- Digital tools have been developed to establish climate budgets in all assignments.

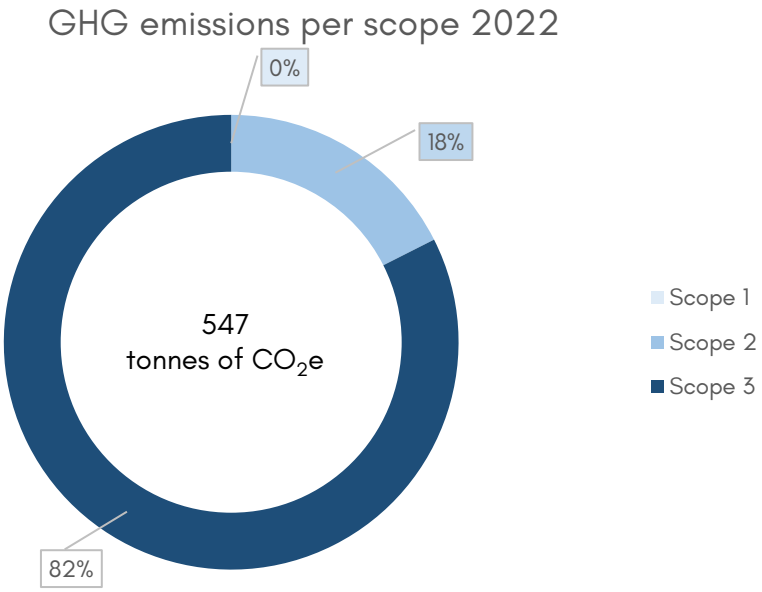

Figure 41. The figure discloses reported emissions per scope for 2022.

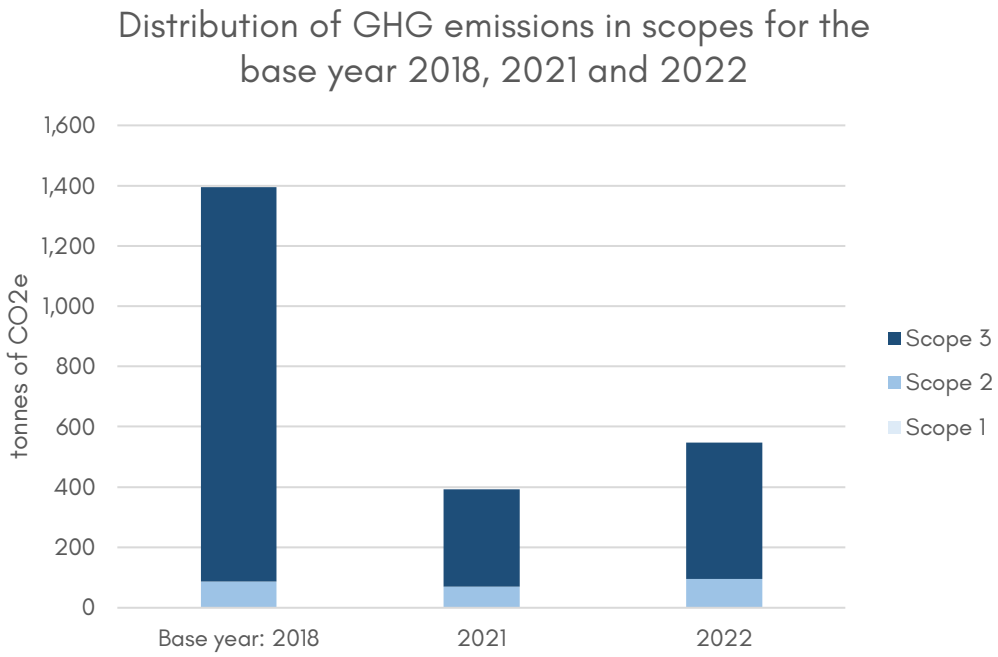

Figure 42. The figure discloses the distribution of scopes for the base year 2018, 2021 and 2022.

Table 25. White's emissions 2022.

GHG emissions (tonnes of CO_2e) [1]	Base year: 2018	2021	2022	Share of total 2022	Change 2018 - 2022
Scope 1	0	0	0	-	-
Scope 2 [2]	88	71	96	18%	+9%
Electricity	0	9	22	4%	-
Distict heating	87	62	74	14%	-15%
Distict cooling	1	0	0	-	-100%
Scope 3	1,308	321	451	82%	-66%
3.1 Purchased goods and services [3]	309	69	94	17%	-69%
3.2 Capital goods [4]	125	151	167	30%	+34%
3.3 Fuel- and energy-related emissions	24	22	14	3%	-43%
3.5 Waste generated in operations	4	12	1	0%	-66%
3.6 Business travel [5]	847	68	174	32%	-79%
TOTAL (excl. carbon offsets)	1,396	392	547	100%	-61%
Carbon offsets					-
TOTAL (incl. carbon offsets)	1,396	392	547		-61%

Key indicators	Unit	Base year: 2018	2021	2022	Change 2018 - 2022
GHG emissions per employee	tonnes of CO_2e/employee	1.9	0.7	1.0	-50%
Number of employees	Employees	726	568	572	-21%

1) Includes operations in Sweden, Norway, UK and Germany.
2) Scope 2 is disclosed using the market-based method.
3) Includes paper, cloud services, food and beverage.
4) Includes IT equipment.
5) Includes air travel, mileage, rental cars, taxi, train and hotel stays.

Scope 1

In the table below, White's emissions in scope 1 are reported for both fossil carbon dioxide emissions and biogenic.

Direct emissions of carbon dioxide	Tonnes of CO_2
Fossil CO_2 emissions in scope 1	0
Direct biogenic CO_2 emissions	0

Scope 2

The table below displays White's emissions in scope 2 for both the market-based method and the location-based method.

Scope 2 method	Scope 2 (tonnes of CO_2e)
Market-based method	96
Location-based method	152

White's value chain

White Arkitekter is a service company that does not produce or sell any products. Emissions in scope 3 are limited to the following:

- Purchasing and service: food, paper, cloud services
- Purchase of capital goods: computers, screens, and telephones
- Energy and fuel-related activities (upstream)
- Waste
- Business travel: flight, train, car, rental car, taxi + hotel

Employees' trips to and from work are not included.

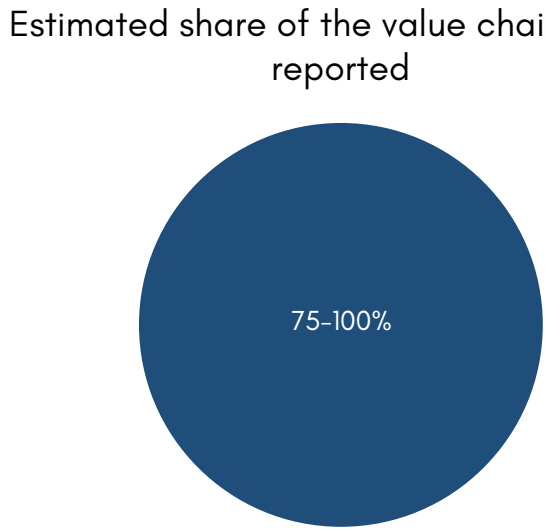

Figure 43. The figure displays the company's estimate of how much of the value chain that is included in the reporting.

Table 26. White's estimated emissions in the value chain, broken down by category.

	Scope 3 category	Emissions in tonnes of CO_2e	Included emission sources (tonnes of CO_2e).	Limitations	Estimated emission coverage (%)	Justification for exclusions	Share of emissions with primary data (%)
Upstream	1. Purchased goods and services	94	Food and beverages: 84 Cloud services: 9 Paper: 1	No other procurements.	80%	No data available.	1%
	2. Capital goods	167	IT equipment: 167	No other capital goods.	50%	No data available.	0%
	3. Fuel- and energy-related activities	14	Electricity: 6 District heating: 7 District cooling: 1				100%
	4. Upstream transportation and distribution	0				Negligible	
	5. Waste generated in operations	1					0%
	6. Business travel	174	Air travel: 146 Mileage and rental cars: 13 Taxi: 5 Train travel: 4 Hotel stays: 9				92%
	7. Employee commuting			Not included in the disclosure.		Not considered part of corporate responsibility.	
	8. Upstream leased assets					Negligible	
Downstream	9. Downstream transportation and distribution					Negligible	
	10. Processing of sold products					Not relevant.	
	11. Use of sold products					Not relevant.	
	12. End-of-life treatment of sold products					Not relevant.	
	13. Downstream leased assets					Not relevant.	
	14. Franchises					Not relevant.	
	15. Investments					Not relevant.	
	TOTAL	451					
Outside of scope 3	Waste management for waste sent for incineration in plants with energy recovery (not included in category 5)	16					

Emissions in scope 3 which are currently not included in the reporting

The emissions in scope 3 are dependent on data from other actors. When purchasing, requirements are placed on suppliers and there are purchasing instructions for employees. However, the precision of the data differs markedly between different actors. The level of detail for purchases could be improved, mainly regarding office supplies, but there is also the possibility of including more purchases, for example furniture, copiers, and supplementary computer equipment.

For trips, there is information that can be followed up more precisely. For example, there is a lack of information on what type of car the employees drive when they use their own car for business trips. White has a policy of booking environmentally friendly taxis as well as rental cars, but there is no data on what percentage of trips meet these requirements. White has not followed up exactly how the employees get to and from work, but in the big cities, a large percentage take public transport or bike.

White is constantly working to develop processes and make it easier for employees to make environmentally friendly choices, while the demands on suppliers are constantly being tightened.

In the long term, White will report emission reductions from materials for the buildings it projects, but a better follow-up methodology is needed, and the industry establishes a base level. However, the company does not have control over the final climate footprint of the buildings, as much can change during the construction phase and operation.

The company's scope 3 target[1]

In 2030, the company's emissions of CO_2e shall be 50 percent lower than in 2018.
In 2023, the company's emissions of CO_2e shall be 30 percent lower than in 2018.

The company shows how the target is achieved

White's emissions in the own operation is 61 percent lower in 2022 compared to 2018. The biggest reason is the switch to conducting study trips by train and bus instead of by plane. In addition, business trips have decreased compared to before the pandemic.

Next year, the company will continue to review the travels, but also purchases.

[1] The targets for 2030 also include scope 3 emissions

Analysis and comments

This is the first year that White Arkitekter presents its climate disclosure in the Haga Initiative. However, White Arkitekter already has a climate target with the base year of 2018. As can be seen in the climate disclosure, White Arkitekter has no emissions in scope 1.

Emissions in scope 2 have increased by 9 percent compared to the base year, which is explained by the fact that additional operations in Germany and UK do not have electricity agreements with guarantees of origin for fossil-free electricity.

The reduced emissions for purchased goods, 69 percent compared to the base year, stem mainly from food and beverages, which can partly be explained by 21 percent fewer employees, but also by pandemic restrictions, at least for 2021. The reduced emissions for cloud services are partly due to changed methodology and sources.

Reduced emissions from business trips, 79 percent compared to the base year, is also due to pandemic restrictions, but also that White Arkitekter introduced a policy in 2019 that study trips should be made by train.

In total, White Arkitekter's emissions have decreased by 61 percent, while the number of employees has decreased by 21 percent. This means that the emission per employee has decreased by 50 percent since the base year. Compared to the pandemic restriction year 2021, however, emissions have increased by 40 percent, which is by 70 percent explained by increased emissions for business trips.

Appendices

Appendix 1.

Biogenic emissions

Biogenic carbon dioxide emissions occur when biofuels are used for heating, production and transport. When fuels containing carbon are burned in air, carbon dioxide is formed regardless of whether the fuel is fossil or renewable. Over time, however, it is only carbon dioxide emissions from fossil fuels that contribute to the greenhouse effect because biofuels absorb as much carbon dioxide during their growth as they release during combustion. The carbon dioxide emissions from burning biofuels are called biogenic carbon dioxide emissions. According to the national report on greenhouse gas emissions, both fossil emissions, biogenic emissions and biogenic uptake are reported in accordance with the so-called LULUCF regulation. The biogenic net is thus reported for land use. If the companies were to report the biogenic carbon dioxide emissions together with the fossil emissions, the biogenic emissions would therefore be reported twice.

In the table below, the companies' biogenic carbon dioxide emissions are reported in parallel with the fossil ones in scope 1. Note that only carbon dioxide emissions are reported, which is why the fossil carbon dioxide emissions in the table do not correspond to emissions of greenhouse gases expressed in CO_2e (carbon dioxide equivalents) in the respective companies' climate accounts. Also note that biogenic absorption of carbon dioxide is not reported in the table.

Distribution of direct biogenic emissions	Direct biogenic CO_2e emissions (tonnes)	Fossil CO_2e emissions in scope 1 (tonnes)
JM (2022)	345	2,677
Swedbank (2022)	245	441
Axfood (2021)	5,531	13,007
Stena Recycling (2021)	10,427	16,658
Coca-Cola (2019)	0	1,101
Lantmännen (2019)	161,170	8,514
Löfbergs (2018/19)	2,097	161
Preem (2018)	5,057	1,976,028
Stockholm Exergi (2018)	2,071,229	491,914
White (2018)	0	0
McDonalds (2010)	16	750
HKScan (2003)	2,732	6,305
Folksam (2002)	0	229

Appendix 2.

Emission reductions in scope 2

The emissions in scope 2 consist of emissions that occur during the production of purchased electricity, district heating, district cooling and steam. Scope 2 has two approved calculation methods; market-based method and location-based method.

Market-based method:

- The emission factor is determined based on guarantees of origin. If no guarantees of origin have been purchased, the average emission factor is used for the part of the production from the power grid that has not been sold with guarantees of origin.

Location-based method:

- Emission factors correspond to the total production of the power grid from which the consumer draws its electricity.

Below, all the companies' emissions in scope 2 are reported, calculated by using both methods.

Comparison of calculation method scope 2	Total scope 2 according to Market-based (tCO_2e)	Total scope 2 according to Location-based (tCO_2e)
JM (2022)	1,131	2,968
Swedbank (2022)	1,927	2,523
Axfood (2021)	2,725	19,963
Stena Recycling (2021)	1,192	6,748
Coca-Cola (2019)	12	202
Lantmännen (2019)	17,881	39,588
Löfbergs (2018/19)	62	457
Preem (2018)	10,951	47,128
Stockholm Exergi (2018)	68,555	73,856
White (2018)	96	152
McDonalds (2010)	272	6,541
HKScan (2003)	1,925	6,703
Folksam (2002)	232	567

Axfood
Coca-Cola EUROPACIFIC PARTNERS
Folksam
HKSCAN
JM
Lantmännen
KAFFEROSTERIET LÖFBERGS ETABLERAT 1906
STENA RECYCLING
stockholm exergi
Swedbank
white