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## PREFACE BY THE CEOS

This year, the Haga Initiative is celebrating 10 years, which means we have reported our climate impact for a decade. Every year we review our emissions, monitor these against our climate targets and decide upon actions that will be taken in order to reach the targets. In this year's climate disclosure, we report for the second last time on our 2020 target which includes reducing our climate impact with 40 percent by 2020. How are we doing then? We see that 11 out of 12 companies have already reached the 2020-target and our reported emissions have decreased with 22 percent compared to last year.

We report in order to be transparent, including what, how and why we report in our disclosure. Mentioning what we exclude is also an important part of our reporting. When we receive feedback, we try to improve for next year. It is not enough just being transparent with our owned emissions, transparency also applies to the emissions that occur in the supply chain or user phase of our products and services as well. This is far more difficult for some companies, which may have thousands of suppliers and subcontractors.

**Until 2030, we aim to reach net-zero for our emissions in Sweden**. We develop the framework for monitoring our emissions in a transparent way. More questions concerning our emissions and information regarding emissions in our supply chain is requested. This is an important and continuous work for us.

We shall be in line with the 1,5-degree target, this is the basis for our climate targets. We want to show the business advantages that comes with active climate work. We see that the transformation is strengthening our brands, attract employees and on many occasions decrease costs. We also note that our climate targets cannot be achieved unless we have right governance. This means governance aligned with the 1.5-degree target.

We need to ensure that the transformation into a low-carbon future continues. There are extraordinary times right now, as a result of the corona pandemic. We see that many companies struggle for survival and transformation. We need to ensure that businesses continue to work with climate as we step out of the corona pandemic. Politicians need to promote an ambitious climate policy that will improve Sweden's competitiveness. Our own experiences tell us that high climate ambitions strengthen our companies. Risks are reduced while attractiveness of employees and brand value increase. We see a climate disclosure as natural as a financial disclosure, which in turn will secure our business activities for the future and contribute to increased societal values.

Johan Skoglund

CEO JM

Klas Balkow CEO Axfood

**Dennis Mattson** CEO HKScan Sverige Anders Egelrud

CEO Stockholm Exergi

Lars Appelqvist CEO Löfbergs

trall &

Joachim Knudsen CEO McDonald's Sverige Per Olof Nyman CEO Lantmännen

Kristofer Sundsgård CEO Stena Recycling

**Ylva Wessén** CEO Folksam Hannele Arvonen CEO Sveaskog

Petter Holland CEO Preem

Sofie Eliasson Morsink

**Sofie Eliasson Morsink** CEO Coca-Cola European Partners Sverige

## **EXECUTIVE SUMMARY**

**Up until 2019, 11 out of 12 member companies** have reached the Haga Initiative's climate target<sup>1</sup> for 2020. That is one year faster than planned. All in all, the Haga Initiative member companies have decreased their scope 1 emissions by 1,5 million tonnes CO<sub>2</sub>e, compared to selected base year. This can be compared to Sweden's total emissions, about 53 million tonnes.

The emission trend for the Haga Initiative member companies is positive over time and 2019 is no exception. The direct greenhouse gas emissions (in scope 1) decreased with 22 percent compared to 2018, corresponding to 700 000 tonnes. All 12 member companies decreased their emissions in scope 1, while one company increased its emissions within the Haga scope. The decrease is partly a result of phasing out fossil fuels in electricity and district heating production, machinery downtime, efficiency improvements regarding transportation and internal processes

**During 2019, several forceful actions have been taken** to reduce emissions and the fossil dependence, such as the phase out of fossil fuels in company processes and transports as well as research and development (R&D) for carbon capture and storage (CCS). Actions such as energy efficiency and process optimization, in order to decrease the need for primary resources, and a more sustainable material and resource handling have also been seen during the year. Companies report stricter policies and guidelines for business travel and promote digital meeting options, which in turn have led to a decrease in air travel. Throughout 2019 we see a positive trend of cooperation and joint initiatives.

In summary, the Haga Initiative member companies are on the right track of decreasing emissions compared to the baseline year chosen by each company. The Haga Initiative member companies' target is an emission reduction in scope 1 with 85 percent by 2030, compared to chosen base year. This is in line with the 1.5-degree target, a target that the Global Carbon Law a describes as halving emissions every decade.

This climate disclosure includes the collective decoupling effects of the Haga Initiative over time. As greenhouse gas emissions decrease in the company's disclosures, their financial turnover increase. This is a clear sign that the Haga Initiatives vision is possible – a profitable business sector without climate impact.

In this climate disclosure, the members of the Haga Initiative present their most significant emissions in scope 3, emissions that occur upstream and downstream the supply chain. During 2019, most companies report quantitative figures of their most significant scope 3 emissions and is thereby reporting their most significant emissions throughout their supply chain. The reporting is a part of the more ambitious strategy for the Haga Initiative.

<sup>1</sup> The Haga Initiatives climate target for 2020 is a 40 percent decrease in emissions compared to selected base year in the Haga scope. The Haga scope is defined as emissions under scope 1, 2 and business travel under scope 3.

## THE HAGA INITIATIVE'S GREENHOUSE GAS EMISSIONS DISCLOSURE

**The Haga Initiative's vision** is a profitable business sector without climate impact. The climate strategy is to set targets that are in line with the 1.5-degree target. For the Haga Initiatives member companies that is a reduction in greenhouse gas emissions by 40 percent by 2020, and net-zero emissions by 2030. The companies realise that climate effort is profitable and want to inspire other companies to do the same.

The Haga Initiative wants to show opportunities to reduce climate impact and at the same time work actively on creating the right conditions for the business sector to contribute. Business has a central role to play when it comes to acting against climate change, they are well positioned to drive development in the right direction. Companies can be innovative and bring about rapid changes.

An initial step in the right direction is knowing the company's status by calculating its greenhouse gas emissions. The next step is to create a climate strategy containing targets on how to reduce climate impact. In addition to calculating and continuously reporting the yearly emissions, each company also report its most important actions taken in 2019 which resulted in reduced climate impact. To update the world on the company's climate impact is an important act to create customer demand towards climate-smart products and goods, as well as to show other companies that climate issues are an important part of corporate responsibility.

When the Haga Initiative was founded in 2010, climate targets were set to reduce emission by at least 40 percent by 2020 compared to a post-1990 base year of their choice. The member companies' climate targets cover the Haga scope as a minimum. The Haga scope is defined as emissions in scope 1, scope 2 and business travel in scope 3. During 2019, 11 out of the total 12 companies reached the target of a 40 percent reduction in greenhouse gas emissions. The targets were ambitious when they were set ten years ago, the progress has however been much faster than many expected.

#### **ABOUT THE HAGA INITIATIVE**

The Haga Initiative consists of twelve member companies:
Axfood, Coca-Cola European
Partners Sverige, Folksam,
HKScan Sweden, JM, Lantmännen,
Löfbergs, McDonald's, Preem,
Stena Recycling, Stockholm Exergi
och Sveaskog.

The member companies of the Haga Initiative make the following commitments:

- A committed CEO/ management that takes active climate responsibility
- A broad-based, ambitious climate strategy
- Regular measurement and accounting of the company's climate impact according to the GHG Protocol.
- A clearly diminishing emissions trend.
- A defined emissions target to reduce CO<sub>2</sub>e emissions by at least 40 percent by 2020 or an equivalent level of ambition
- Net zero emissions within own operations by 2030.

When the climate target was set for 2020, the full scope 3 standard (Corporate Value Chain Accounting and Reporting Standard) did not yet exist. Today, there is an increasing focus on greenhouse gas emissions throughout the supply chain: upstream and downstream. According to Greenhouse Gas Protocol, more than 70 percent of total emissions for an average company are in scope 3. For the companies in the Haga Initiative as well as for other companies, continuously accounting for and reporting on the significant emissions in scope 3 is a major challenge. Companies in the Haga Initiative recognise the importance of more comprehensive reporting and thus greater transparency for ensuring a fair description of the companies' total environmental impact

**During 2017, the Haga Initiative adopted 2030-targets**, this means reducing the emissions to net zero by 2030 in scope 1, purchased energy in scope 2 should be renewable or recycled and emissions in scope 3 are to be mapped out, identified and reduced. Sweden's goal is to reach net-zero emissions by 2045.

**In this disclosure**, the targets for 2020 are reported. As an initial step to monitor the targets for 2030, we have chosen to report the most significant emissions in scope 3 which are not covered by the present 2020 climate target.

#### THE HAGA INITIATIVE AND GHG

The Haga Initiative currently follows the GHG Protocol, allowing members to choose whether to set absolute or relative targets. The first alternative reflects the company's absolute emissions in tonnes CO<sub>2</sub>e. However, the companies in the network all operate in growing markets, which in many cases makes relative objectives the more appropriate option. In some cases, greater absolute emission figures for a company can even mean that total emissions for its products are lower i.e. because of increased materials recycling or a switch to rail transportation and district heating. In the emissions disclosures, the companies present their targets. outline the measures they have taken and plan to take to achieve their targets, and the progress they have made so far towards meeting these targets. The members can choose absolute or relative targets to achieve at least 40 percent reduction until 2020.

#### **GREENHOUSE GAS PROTOCOL**

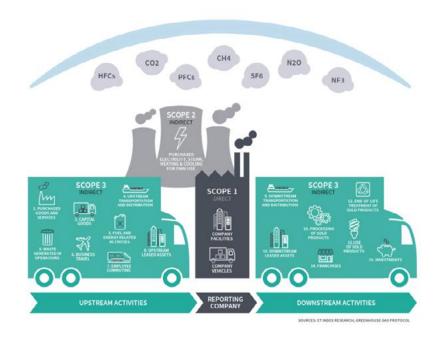
The GHG Protocol is the international accounting standard that is most frequently used by nations and companies as a calculation tool for understanding, quantifying and managing emissions of greenhouse gases. For more than ten years, the GHG Protocol has been working in partnership with the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), and with companies, nations and environmental groups around the world to build a new generation of credible and effective programs for managing climate change.

# THE 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 GHG Protocol. The GHG Protocol (Greenhouse Gas Protocol) is an international calculation standard guided by the following 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.

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.



# COMPANY REPORTS ACCORDING TO THE GHG PROTOCOL

In the greenhouse gas emissions disclosure, each company reports the emissions generated during the year, in previous years, and in its chosen base year. The companies also report the climate targets they have set and how they intend to achieve these targets. The Haga Initiative has two target years: 2020 and 2030. In this greenhouse gas emissions disclosure, the targets are reported by 2020. The scope of the target is described as "Haga scope", see box.

**Each year, the Haga Initiative aims to become** more transparent and more consistent in its reporting. As part of this, emissions in each company's disclosure table have been broken down into the three scopes set out in the GHG Protocol. Emissions in scope 3, which are generated upstream and downstream in the value chain, have also been linked to the categories in the broadened scope 3 standard (Corporate Value Chain Accounting and Reporting Standard).

## **External factors affecting emissions**

The calculation of emissions is based on activity data such as energy use and fuel consumption. These figures are then converted into emissions of greenhouse gases (CO<sub>2</sub>e) using emission factors for each emissions source.

**Sometimes a company's emissions may increase** even though it has made its operations more efficient. This can be explained by the emission factors, that can vary from year to year. These variations may be due to:

- **Gradual shifts** caused by political instruments or a technology leap at the distributers end. An example of this is the Nordic energy production mix, where fossil-based fuels have gradually decreased over time. The phase-out of fossil fuels in the district heating sector and the reduction obligations that gradually will reduce the climate impact of vehicle fuels are two other examples.
- **Temporary changes** that could cause the emission factor to either increase or decrease. For example, a cold winter may force district heating companies to use fossil fuels for peak production, or changes in social functions may result in different logistics flows.

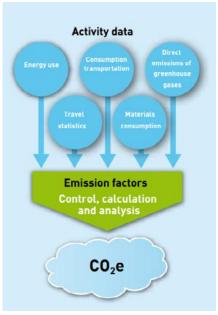
Emission factor changes are connected to real changes in emissions.

By having contractual agreements with distributers, companies can influence their reported emissions in the green-house gas emission disclosure. With contractual agreements the distributer commits to allocate part of the production to the customer, and thereby not include the environmental footprint of the product to other customers. The production mix that remains after the removal of production bound to a customer by contractual agreements is called "residual mix". The most common example of this type of contractual agreements is the electricity guarantee of origin, but the allocation of resources in this way can also be found in other sectors such as district heating, fuel and food. In contrast to the changes in the emission disclosure due to real changes, these allocations do not affect the real emissions.

According to the Greenhouse Gas Protocol, companies may choose between two scope 2 calculation methods. With the market-based method the company may choose to report a certain type of production (and in turn emissions) through contractual agreements. With the location-based method on the other hand, the entire production mix is considered when calculating the emissions. The Haga Initiative member companies are reporting in accordance with the market-based method, but the outcome of scope 2 emissions according to the location-based method are reported as well, in appendix 2.

## HAGA SCOPE FOR THE 2020 TARGET

The Haga scope is defined as emissions under scope 1, 2 and business travel under scope 3. The member companies have climate targets that encompass or exceed the Haga scope.



## **RESULTS: GREENHOUSE GAS DISCLOSURE 2019**

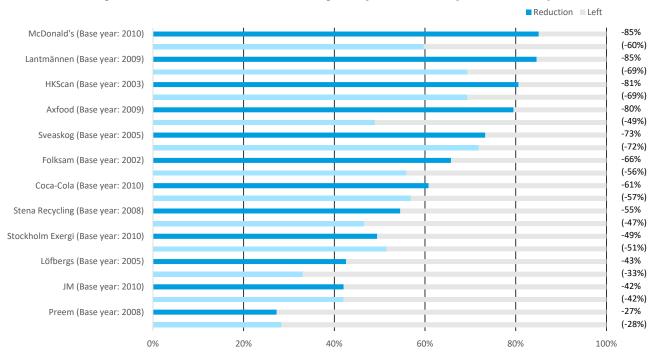
The Haga Initiative's total emission reductions in 2019 are presented below in absolute terms compared to the selected base years. The member companies in the Haga Initiative are diverse; some have their major emissions in scope 1 while others in scope 2 and 3. This means that their influence to affect emissions differ. Emissions in scope 1 (direct GHG) are emissions from sources that companies own or control. Emissions in scope 2 (indirect GHG) are emissions that occur when a company purchases electricity or district heating. Emissions in scope 3 (other indirect GHG) are divided into 15 categories and are those that occur upstream and downstream in the value chain.

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

## **Emissions reduction Haga scope**

The Haga scope covers emissions in scope 1, 2 and business travels in scope 3. All companies have reduced their emissions and 11 out of 12 companies have already reached the target of reducing emissions by 40 percent by 2020 compared to their base year. In total, the companies have reduced emissions in the Haga scope by 40 percent compared to the respective base year, equivalent to more than 1.7 million tonnes  $CO_2e$ . There are three companies that contribute to the largest emission reductions in the Haga scope, measured in tonnes  $CO_2e$ ; Stockholm Exergi, Preem and Lantmännen.

## Percental change of absolute emissions in the Haga scope - 2019 compared to base year



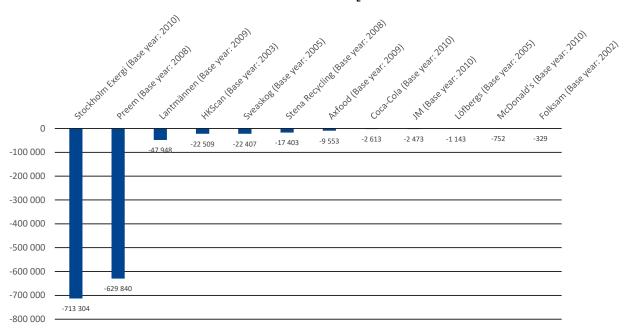
↑ The graph shows the change of companies' emissions in the Haga scope in 2019 compared to the selected base year. Changes in emissions are reported in absolute figures, where the dark blue stacks show the market-based approach and the light blue stacks show the location-based method. For the Haga initiative target the market-based approach is used.

## **Emissions reduction in scope 1**

Compared to 2018, the Haga Initiative's emissions in scope 1 have decreased with 22 percent, equivalent to 700 000 tonnes of  $CO_2$ e. All 12 companies have decreased their emissions in scope 1, partly as a result of the fossil fuel phase out in electricity and district heating production, machinery downtime, efficiency improvements regarding transportation and internal processes. The reasons behind each individual company's increased or decreased emissions is described in the company's profile below.

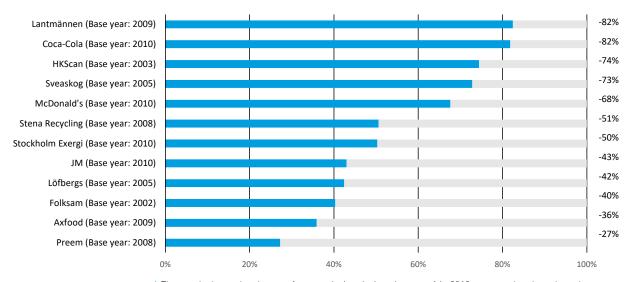
Compared to the selected base years, the companies' emissions in scope 1 have decreased by 37 percent, equivalent to 1.5 million tonnes of  $CO_2$ e. The companies contributing to the largest emissions reduction (in tonnes  $CO_2$ e) are Stockholm Exergi and Preem.

## Change of absolute emissions in Scope 1 (tonnes CO<sub>2</sub>e) - 2019 compared to base year



↑ The graph shows the change of companies' emissions in scope 1 in 2018 compared to the selected base year. Changes in emissions are reported in absolute figures in tonnes of CO₂e.

## Percental change of absolute emissions in Scope 1 - 2019 compared to base year



↑ The graph shows the change of companies' emissions in scope 1 in 2019 compared to the selected base year.

## **Emissions reduction scope 2**

Emissions in scope 2 are emissions arising from the production of purchased electricity or district heating. By purchasing guarantees of origin, companies can reduce their emissions from this category. How the emissions in scope 2 has been calculated is reported in Appendix 2.

## Significant emissions in scope 3

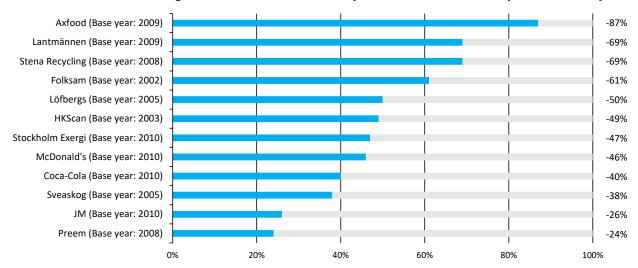
A company's emissions may be associated with emissions that are outside the Haga scope, which arises upstream and downstream in the value chain. In 2019 The Haga Initiative initiated a broader way of reporting, including more categories in scope 3. These emissions are to be followed up on. This greenhouse gas disclosure only reports on the 2020 target. This means that it is still up to each company to choose if they want to disclose these scope 3 emissions, but several of the member companies have for years been including these emissions. As a first step towards implementing the new 2030-targets of The Haga Initiative, we report the companies most prominent emissions in scope 3. This reporting is based on companies' own analysis of what emissions they consider most significant as well as what strategies they have adopted to mitigate these emissions. The report is therefore a qualitative analysis of emissions and are not quantified in this disclosure. As can be seen in the table below, emissions primarily from purchased goods and services account for the largest emissions in scope 3, according to the companies themselves. The companies' power to influence varies in different categories and the companies can therefore affect their scope 3 emissions in different ways. For instance, some strategies mentioned by the companies are cooperation with suppliers, increase the number of climate friendly alternatives and to increase the efficiency of purchased goods or services.

#### **SWEDEN'S NATIONAL EMISSIONS**

The Swedish Environmental Protection Agency reports
Sweden's national emissions per emission source. Statistics
Sweden reports Swedish companies' emissions within and outside Sweden's borders and reports emissions per industry.
SCB's calculation method is based on assumptions, which simplified comprise the total emissions by Sweden's national emissions and emissions caused by the fuel stored in Sweden for international transports.

- The Swedish Environmental Protection Agency
- SCB

## Change of relative emissions (key indicators) - 2019 compared to base year



↑ The graph shows the changes in the companies' relative emissions 2019 compared to chosen base year. The companies monitor different key indicators due to their different activities. Company specific key indicators are shown under respective company report.

	The largest category of emissions in scope 3 that quantitatively is reported in this disclosure (category according to GHG Protocol)	The largest category of emissions in scope 3 that is NOT quantitatively reported in this disclosure (category according to GHG Protocol)	Strategies to manage emissions in scope 3
Axfood	Business travel (6)	Production from agriculture (1)	Reduce food waste, expand offering of vegetarian products, work with packaging and material (e.g. plastics). Demand on suppliers targets and actions.
Coca-Cola European Partners Sverige	Refrigeration of beverage on customer premises [10]	Production of ingredients and packaging [1]	Climate target for scope 3, increased share of recycled material, sustainable production of raw materials.
Folksam	Electricity from wind power with Guarantee of Origin (3)	Investments (15)	During 2019, new, measurable, targets were set by Folksam. Among others carbon neutrality in the equity portfolio. Folksam was an initiator to the UN-convened Net-Zero Asset Owner Alliance.
HKScan Sweden	Purchased transports (4, 9) Production of meat (1)	Production of meat (1)	Gårdsinitiativet som ska hjälpa gårdarna att minska sitt klimatavtryck. Samarbete med tjänsteleverantörer och lant- brukare. Miljöpris till djurleverantörer samt ansvarsfullt producerad soja i fodret.
JM	Leased machinery (8)	Production of construction materials (1)	Renewable fuels, efficient material use, prevent generation of waste, create circular material flows, identify and test climate efficient construction materials.
Lantmännen	Purchased goods transport (4, 9)	Production of grains and other raw materials (1)	Mapping of potentials for decreased environ- mental impact, cooperation with suppliers and customers, new technologies in production.
Löfbergs	Cultivation of coffee (1)		Development projects for small-scale coffee farmers (concerns 80 000 small-scale coffee farmers), increased the share coffee from certified farms (today the entire selection has at least one certification).
McDonald's Sverige	Waste disposal (5, 12)	Production of meat (1)	Increase share of alternative proteins, global cooperation for improved sustainability within beef production, work towards phasing out plastics in packaging.
Preem	Use of sold products (vehicle fuel) (11)	Capital goods (2)	Increase the share of sold renewable vehicle fuels.
Stena Recycling	Purchased transports (4, 9)	Customers' transport of waste to the facilities (4, 9)	Procurement demands on biofuels, vehicle performance and transport optimization.
Stockholm Exergi	Production and distribution of energy and vehicle fuels (3)		Shift of fuel transportation from road to rail. During 2019, 320 000 tonnes of biofuel was transported by train to Värtaverket.
Sveaskog	Purchased timber transport with truck [4, 9]		Encourage the use of renewable vehicle fuels.

<sup>1</sup> This table is a compilation of the largest emission categories in scope 3, that are reported or not reported in this disclosure, along with adopted strategies as stated by the companies themselves.

## DECOUPLING OF THE HAGA INITIATIVE

**Sweden has managed to decouple GDP growth** from greenhouse gas emissions. Between 1990 and 2018, emissions in Sweden were reduced by 26 percent, while GDP increased by 82 percent<sup>2</sup>. Similarly, the member companies in the Haga Initiative have managed to reduce emissions while maintaining or increasing turnover.

The summary in the chart shows that the Haga Initiative member companies increased their turnover by an average of 14 percent since their respective base years, while emissions fell by an average of 62 percent (Haga scope) or 56 percent (in scope 1). The figures for average emission reduction should not be confused with the companies' aggregate emission reduction, which is 40 percent in Haga scope, or 37 percent in the in scope 1. There are obviously major individual differences behind the figures - some companies have made significant reductions in emissions and increased turnover considerably while others experienced subdued turnover or lower emission reductions.

**Turnover does not tell the entire story** of business economic development. In some cases, the change is due to new acquisitions or spin-offs, which of course, affect both sales and greenhouse gas emissions. Changes and results reported in the chart below could also be caused by the different business models of the companies of the Haga Initiative. Different business models will cause one company to have most of its emissions within the Haga scope, while another company will report most of its emissions within the supply chain. In the supply chain it is harder to access correct data than if emissions are due to the company's own activity. Although turnover is stable, it is necessary to stress that it is not the same as companies' profits and market development. What we can note is that in relation to base years, emissions have declined, and sales increased.

2 Source: GDP from the user page, fixed prices, SCB

#### Decoupling of the Haga Initiative 140 Turnover Emissions scope 1 116 120 111 Emissions Haga scope Index emissions and turnover 100 100 80 62 58 58 44 50 48 38 20 Base year 2015 2016 2017

1 The Haga Initative's reduced emissions and increased turnover. The numbers presented in the figure are the average of each company's indexed emissions and turnover (for Folksam's share, premium income has been used instead of turnover). The indexation has been made so that companies with high emissions and high turnover should not have a higher influence over the numbers than those with lower emissions /turnover. The market-based method has been used for the scope 2 emissions. If the location-based method where to be used instead, the index emissions for the Haga scope 2019 is 47.

## THE HAGA INITIATIVE 2030 TARGET AND THE CARBON LAW

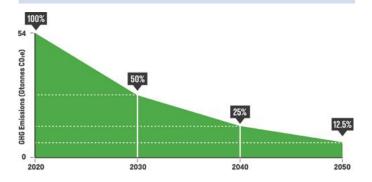
On January 20, 2020," The 1.5 °C Business Playbook" was launched at the World Economic Forum in Davos. The 1.5 °C Business Playbook is a guidance for companies and organisations and supports them to set sharp climate targets and establish a strategy which is aligned with the ambition to limit global warming to 1.5 °C.

The guidance is built upon "Carbon Law", the roadmap that Johan Rockström, together with several international researchers, presented three years ago. Carbon Law is a roadmap that follows a simple rule of thumb: halving emissions every decade in order to keep global warming between 1.5 and 2 degrees.

The roadmap requires bending the global curve of  ${\rm CO_2}$  emissions by 2020 and halving the emissions every decade until 2050. The guidance that the 1.5 °C Business Playbook provides focuses on simplicity and speed, making it easy for companies to apply the Carbon Law to strategies and emission reduction targets, so that these are in line with

#### **CARBON LAW AND THE HAGA INITIATIVE 2030 TARGET**

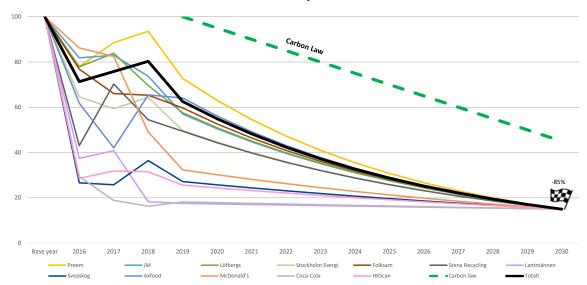
The Haga Initiative's target of 85 percent reduction to 2030 refer to scope 1. The graph below illustrates the reductions that the Haga Initiative member companies have made from the base year until 2019. It also illustrates the trajectory if the decrease corresponding to the 2030 target is made in the Haga scope, as well as the emission reduction curve according to carbon law, halving the emissions every decade.



the target of halving the emissions every decade. The Haga Initiative have chosen to report emissions in accordance with the Carbon Law, based on the scope 1-target for 2030, and have done so for the last three years.

Carbon Law clearly demonstrate what is required of the companies. Halving emissions every decade requires a minimum rate of reduction of approximately seven percent each year from 2020. For the companies in the Haga Initiative to reach the target of an 85 percent decrease in emissions by 2030, an annual average reduction rate of 11 percent was required in 2017. In 2018 the required reduction rate was 13 percent. From this year's level, an average reduction rate of 12 percent is required to reach the target by 2030.

## Emission reduction in Scope 1 (direct emissions)



<sup>↑</sup> The Haga Initiative's target of 85 percent reduction to 2030 refer to scope 1. The graph illustrates the reductions that the Haga Initiative member companies have made from the base year until 2019. It also illustrates the trajectory if the decrease corresponding to the 2030 target is made in the Haga scope, as well as the emission reduction curve according to carbon law, halving the emissions every decade.



# The Member Comapies' Greenhouse gas emissions disclosure

# **AXFOOD**



## **Axfood**

## **Climate targets**

Axfood is set to be climate neutral in the group's own activities by 2020. The company have already achieved their target to reduce its own climate impact by 75 percent (base year 2009). Moreover, Axfood has further targets for reduced climate impact in the Haga scope and the rest of scope 3. Within the food industry, the dominant climate impact occurs in production. Many of the targets affect the scope 3 emissions in a positive way.

## Actions taken in 2019

- Axfood sets out to decrease the negative impact of plastics. In 2019 the company adopted a policy stating that all plastic packaging from their own branded productss shall go to material recycling (by 2022), the use of plastic shall decrease with 25 percent (by 2025) and only renewable feedstock shall be used (by 2030).
- Axfood is transitioning to a diversified, fossil free, vehicle fleet with several different types of trucks and fuels. Half of all trucks are today customized to fossil free fuels.
- A continued modernisation to move away from climate impacting refrigerants in the stores.

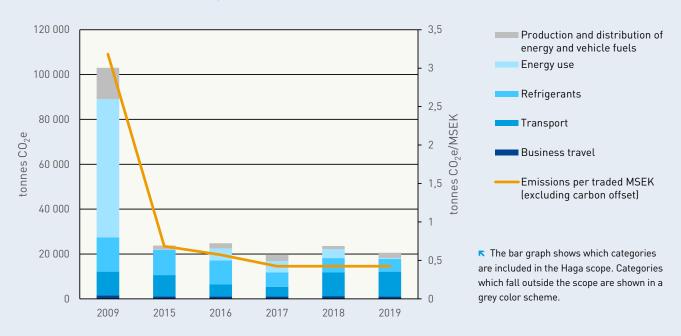
Emissions (tonnes CO <sub>2</sub> e)	Base year 2009	2018	2019	Share of total 2019	Change 2009-2019
Scope 1	26 593	17 406	17 040	83 %	-36 %
Business travel 11	851	420	326	2 %	-62 %
Own transport	10 531	10 557	11 115	54 %	6 %
Refrigerants 2)	15 212	6 429	5 599	27 %	-63 %
Scope 2	61 647	4 016	474	2 %	-99,2 %
Purchased energy <sup>3]</sup>	61 647	88 770	67 493		
Reduction through purchase of renewable	0	-84 754	-67 019		-
electricity or district heating with Guaran-					
tee of Origin 4)					
Scope 3, Haga scope	770	773	721	4 %	-6 %
Business travel 51	770	773	721	3,5 %	-6 %
TOTAL Haga scope	89 011	22 195	18 235	89 %	-80 %
Production and distribution of energy and	14 008	1 391	2 310	11 %	-84 %
vehicle fuels 6)					
TOTAL (excl. Carbon offset)	103 019	23 586	20 545	100 %	-80 %
Carbon offset 7)	0	-741	-721		-
TOTAL (incl. Carbon offset)	103 019	22 845	19 824		-81 %

Key indicators	Base year 2009	2018	2019	Change 2009-2019	Unit
Emissions per revenue (MSEK) excluding carbon offset	3,2	0,5	0,4	-87 %	tonnes CO <sub>2</sub> e/MSEK
Emissions per employee excluding carbon offset	15,1	2,3	1,9	-88 %	tonnes CO <sub>2</sub> e/employee
Emissions per revenue (MSEK) including carbon offset	3,2	0,5	0,4	-88 %	tonnes CO <sub>2</sub> e/MSEK
Emissions per employee including carbon offset	15,1	2,2	1,8	-88 %	tonnes CO <sub>2</sub> e/employee
Emissions per tonne of transported goods	24,3	16,5	17,1	-29 %	kg CO <sub>2</sub> e/tonne goods
Energy use per sqm (total)	624	319	313	-50 %	kWh/m²

- As from 2014, company-owned cars are also included. 2014, the emissions amounted to 527 tonnes.
- Base year adjusted from 4147 tonnes since a new monitoring system have been introduced. Intermediate years are not adjusted.
- 3. Emissions from production of purchased electri-
- city, district heating or district cooling, assuming that all is unspecified (residual mix). Refers to energy use in retail stores and premises owned by Axfood. "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.
- Refers to business air travel, train and taxi journeys.
- Reduction of emissions for "Purchased energy" in scope 2.
- Refers to fuels consumed in scope 1 and scope
   Only regarding energy, not business travel or transportation of goods.
- Refers to business air travel.

## **Axfood**

## Allocation of emissions 2009, 2015-2019



## **Analysis and comments**

Axfood's emissions within the Haga scope have decreased by 80 percent since the base year 2009. The company have also decreased their emissions with 20 percent since last year. The majority of emissions within the Haga scope comes from transportation and refrigerant leakages in scope 1. Since last year, emissions from transportation have increased slightly, while refrigerant leakages have decreased. Since 2018, Axfood have actively chosen to exclude the biofuel HVO in their fuel mix, this due to the admixture of palm oil. This, in combination with increased transportation of goods, is the reason behind the rise in emissions from transports in scope 1.

There has been a significant reduction in emissions from purchased energy in scope 2, 99 percent since the base year. The decrease is partly due to a change in the scope of the reported consumption data, where heat consumption is now excluded, and partly due to energy efficiency actions and the purchase of renewable, guarantees of origin-labelled, electricity.

Axfood carries out carbon offsetting to compensate for its air travel, equivalent to approximately four percent of its total emissions.

#### **MOST SIGNIFICANT EMISSIONS IN SCOPE 3**

Axfood sells thousands of different products produced on more than one farm. The complexity of the supply chain makes it almost impossible to calculate the climate impact of all the emissions. However, Axfood is working to reduce the climate impact from food, for example by reducing food waste, improving customer offering of vegetarian products and decreased use of plastic. They also work with the supply chain, by set target and action requirements.

# COCA-COLA EUROPEAN PARTNERS SVERIGE





## **Climate target**

Coca Cola European Partners (CCEP) aims to reduce greenhouse gas emissions, in all of the companies' 13 European markets, with 50 percent from its core business[1] and with 35 percent within its value chain[2] by 2025 (compared to the base year 2010). CCEP works with science-based targets, classified as "well below 2 degrees". For more information regarding ambitions and work regarding climate, see <a href="https://www.ccep.com">www.ccep.com</a>. CCEP Sweden aims at having net-zero emissions in scope 1, and only purchase renewable energy in scope 2, by 2030 – which is in line with the Haga Initiative targets.

#### Actions taken in 2019

- All energy that is used as input at the production facility in Jordbro originates from renewable sources, the electricity that is used at the production facility is climate neutral since January 1st 2019.
- The energy use per litre of produced beverage has decreased by 20 percent since 2010, due to investment in energy efficient equipment as well as to behavioural change.
- The own distribution has during the year been replaced by purchased transports.
- 1. The core business covers production, distribution and cooling equipment.
- 2. The value chain covers production, distribution, cooling equipment, ingredients and packaging.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2010	2018	2019	Share of total 2019	Change 2010-2019
Scope 1	3 193	607	580	2%	-82 %
Business travel <sup>1</sup>	1 852	510	494	2%	-73 %
Refrigerants	41	86	86	0%	113 %
Own transports	1 300	11	0	0%	-100 %
Scope 2	542	49	43	0%	-92 %
Purchased energy <sup>2</sup>	4 840	6 683	5 008		-
Reduction through purchase of renewable electricity	-4 298	-6 634	-4 965		-
or district heating with Guarantee of Origin <sup>3</sup>					
Scope 3, Haga scope	262	827	945	3%	260 %
Business travel <sup>4</sup>	262	827	945	3%	260 %
TOTAL Haga scope	3 998	1 483	1 568	6 %	-61 %
Purchased goods transport 5	4 620	979	2 785	10%	-40 %
Production and distribution of energy and vehicle	1 285	598	367	1%	-71 %
fuels <sup>6</sup>					
- whereof vehicle fuels for business travel	459	275	112	0%	-76 %
- whereof vehicle fuels for own transport	470	52	9	0%	-98 %
- whereof vehicle fuels for energy production	356	271	245	1%	-31 %
Refrigeration of beverages on customer premises 7	35 357	33 755	23 685	83%	-33 %
TOTAL (excl. Carbon offset)	45 259	36 815	28 405	100 %	-37 %
Carbon offset through electricity distributer, climate	0	0	-245		
neutral electricity					
TOTAL (incl. Carbon offset)	45 259	36 815	28 160	99 %	-38 %

Key indicators	Base year 2010	2018	2019	Change 2010-2019	Unit
Emissions per revenue 8	15,4	9,4	7,4	-50 %	ton CO <sub>2</sub> e/MSEK
Emissions per litre of beverage 8	135,9	97,5	77,2	-40 %	g CO <sub>2</sub> e/liter

- Leasing- and rental cars.
- Emissions from production of purchased electricity, district heating or district cooling, assuming that all is unspecified (residual mix). "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.
- Reduction of emissions for "Purchased energy" in scope 2.
- 4. Refers to business air travel, train and taxi.
- Refers to goods transport purchased from external forwarding agent.
- 6. Refers to fuels consumed in scope 1 and scope 2.
- The electricity consumption by refrigerators is calculated by using conservative estimates (all electricity is assumed to be residual mix).
- 8) Emissions including carbon offset relative revenue and produced beverage in litre.



## Fördelning av samtliga utsläpp i klimatbokslutet 2010, 2015-2019



## **Analysis and comments**

Compared to the base year, 2010, CCEP Sweden have reduced its emissions within the Haga scope with 61 percent. Compared to last year however, the emissions increased with 6 percent. This can be explained by increased emissions from business travel.

During the period 2018-2019 CCEP made logistical changes in order to meet the customers' demands. Today, many of the customers are collecting their goods directly from Jordbro, while the remaining deliveries (that previously were covered by own distribution) are conducted with purchases goods transport. The change in logistic lead to a change in emission distribution within the different scopes. Emissions from own distribution in scope 1 is now in scope 3 and emissions from purchased goods transport increased with 184 percent. When compared to the base year 2010 however, the overall emissions from purchased goods transport have decreased with 40 percent. Emissions as a result of customers collecting their goods at Jordbro is not covered by the scope of CCEP's climate disclosure.

CCEP's climate disclosure includes emissions that originates from electricity consumption and refrigerant leakages from company refrigerators on customers premises. These emissions make up 80 percent of the company's total emissions in 2019 and have decreased with 33 percent since the base year 2010. Since the base year emissions have decreased in absolute terms while production and revenue have increased. Emissions per litre produced beverage have decreased with 40 percent and emissions in relation to revenue have decreased with 50 percent, compared to 2010.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

The most significant emissions in CCEPS scope 3 occurs in the production of the beverage's ingredients and its packaging, which are not included in CCEPS Sweden's disclosure for the Haga Initiative. However, the company has the possibility to influence these emissions and works centrally on an overall sustainability strategy. The sustainability strategy encompasses targets for reducing emissions in scope 3, examples of actions include increased share of recycled materials in packaging and sustainable production of ingredients and raw materials.

# **FOLKSAM**





## **Climate targets**

Folksam has a target of net-zero emissions from its own activities by 2030 and from its investment portfolio by 2050.

## Actions taken in 2019

- During the year, all boards within the Folksam group have adopted measurable sustainability targets.
- Emissions stemming from travel by air and rail decreased by 31 percent compared to 2018 as a result of stricter compliance to the travel guidelines and well-developed options for digital meetings via video or web.
- Folksam was an initiator to the UN-convened Net-Zero Asset Owner Alliance. The alliance target is to achieve net-zero emissions within the investment portfolios by 2050.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2002	2018	2019	Share of total 2019	Change 2002-2019
Scope 1	816	533	487	29 %	-40%
Business travel <sup>1</sup>	773	487	419	25%	-46 %
Own transports	-	-	-		
Refrigerants <sup>2</sup>	43	46	68	4%	58 %
Scope 2	2 324	483	449	27 %	-81%
Energy <sup>3</sup>	2 324	2 989	2 237	27%	
Reduction through purchase of renewable energy or district heating with Guarantee of Origin	0	-2 506	-1 788		
Scope 3 inom Hagascopet	1 105	755	519	31 %	-53%
Business travel <sup>4</sup>	1 105	755	519	31%	-53 %
TOTAL, Haga scope	4 245	1 771	1 456	87 %	-66 %
Production and distribution of energy and vechicle fuels <sup>5</sup>	0	115	101	6%	
Printed materials and paper	141	75	64	4%	-55 %
Water	2	3	3	0%	50 %
Coffee	43	58	52	3%	21 %
TOTAL (excl. Carbon offset)	4 431	2 022	1 676	100 %	-62 %
Carbon offset	0	-2 022	-1 676	-100 %	
TOTAL (incl. Carbon offset)	4 431	0	0	0 %	

Key indicators	Base year 2002	2018	2019	Change 2002-2019	Unit
Emissions per employee excluding carbon offset	1,2	0,6	0,5	-61 %	tonnes CO <sub>2</sub> e/employee
Emissions per employee including carbon offset	1,2	0,0	0,0	-100 %	tonnes CO <sub>2</sub> e/employee

<sup>1.</sup> Leasing- and employee cars

<sup>2.</sup> Relates only to head quarter. Leakage for 2018 has been calculated as the average between 2014 and 2019

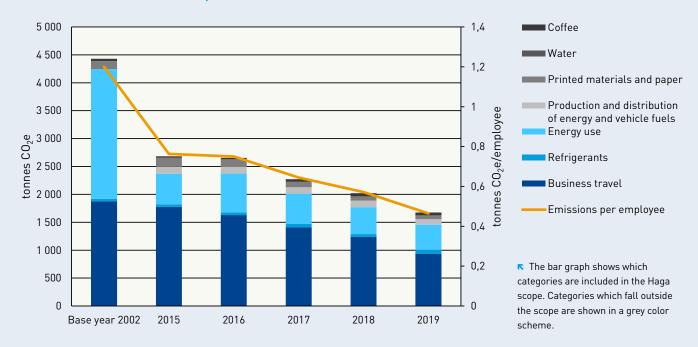
<sup>3.</sup> Measured value for the head quarter and other owned offices, estimated values for field and sales offices. "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.

<sup>4.</sup> Flight taxi and train travels.

<sup>5.</sup> Only scope-3 emissions from wind power.

## **Folksam**

## Allocation of emissions 2002, 2015-2019



#### **Analysis and comments**

Folksam's emissions within the Haga scope have decreased by 66 percent since the base year 2002, and 18 percent since 2018. The total emissions have been reduced with 62 percent since the base year and 17 percent since 2018.

Business travel accounts 56 percent of the total emissions and is thereby the main source of Folksam's emissions. Business travels include leasing cars, mileage, cab, flight, and train travels. During 2019, Folksam have promoted stricter compliance to their travel guidelines and as a result, emissions from business travels have been reduced with 24 percent.

Purchased energy (scope 2) make up 27 percent of the company's total emissions. All purchased electricity for Tullgården, the field and sales offices and Förenade Liv are origin-labelled with Bra Miljöval.

Since 2014, electricity and heat consumption have decreased with 12 and 25 percent, respectively. This has led to a total reduction in energy consumption with 18 percent between 2014 and 2019. The decrease in consumption can be led back to energy efficiency measures that have been taken, as well as a more detailed monitoring.

Folksam offsets its carbon footprint, thus achieving net-zero carbon emissions.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Emissions from Folksam investments are the company's most significant emissions in scope 3. Real estate owned by Folksam Group generated 4 169 (4 217) tonnes CO<sub>2</sub>e, while the investment portfolio generated 810 493 (994 430) tonnes CO<sub>2</sub>e. During 2019, the life insurance companies within the Folksam group, Folksam Liv and KPA pension, have more the halved their holdings in foreign equity portfolios. The level of sustainability has been strengthened with higher sustainability rating and lower carbon footprint.

# **HKSCAN**





## Climate targets

HKScan Sweden has a target to achieve net-zero emissions by 2030, compared to the base year 2003. The target is set in absolute terms and includes emissions in scope 1, scope 2 as well as business travel, purchased animal transports and production and distribution of energy and vehicle fuel in scope 3. During 2019, HKScan started Gårdsinitiativet, an initiative where the target for 2030 is to reduce climate impact from meat with 20 percent, increase areas that favour biodiversity with 5 percent and reduce eutrophication with 20 percent in scope 3 (base year 2018).

## Actions taken in 2019

- Gårdsinitiativet: By implementing 100 different actions, HKScan together with its farmers will work towards decreased climate impact from farms and increase the environmental benefits of Swedish meat.
- Rebuilding in Kristinastad: The investment generated major energy savings, among other halving the liquid gas consumption and an 85 000 m<sup>3</sup>/annum reduction in water consumption.
- Flue gas condensation in Halmstad: the investment in a new treatment facility decreased the factory's carbon dioxide emissions by 80 percent, about 600 tonnes CO<sub>2</sub>.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2003	2018	2019	Share of total 2019	Change 2003-2019
Scope 1	30 242	9 531	7 734	24%	-74%
Business travel <sup>1</sup>	1 596	835	727	2%	-54%
Heating <sup>2</sup>	22 334	6 412	5 064	16%	-77%
Refrigerants	0	370	146	0%	-
Own transports	2 965	115	104	0%	-96%
CO <sub>2</sub> in production <sup>3</sup>	3 347	1 799	1 694	5%	-49%
Scope 2	24 619	1 318	2 776	9%	-89%
Purchased energy <sup>4</sup>	24 619	24 546	19 931		
Reduction through purchase of renewable electricity or district heating with Guarantee of Origin <sup>5</sup>	0	-23 228	-17 155		
Scope 3, Haga scope	0	320	131	0%	-
Business travel <sup>6</sup>	0	320	131	0%	-
TOTAL, Haga scope	54 861	11 169	10 641	33%	-81%
Production and distribution of energy and vehicle fuels <sup>6</sup>	5 747	1 105	1 314	4%	-77%
- whereof fuels for business travel	110	171	148	0%	36%
- whereof fuels for own transports	0	25	22	0%	-
- whereof fuels for purchased energy	5 637	909	1 144	4%	-80%
Purchased animal transports	10 516	6 380	6 728	21%	-36%
TOTAL HKScan's climate target	71 123	18 654	18 683	59%	-74%
CO <sub>2</sub> in packaging <sup>2</sup>	3 347	1 799	1 694	5%	-49%
Other purchased transports 7	0	5 779	5 774	18%	-
Waste disposal <sup>8</sup>	0	834	891	3%	-
Packaging <sup>9</sup>	0	4 334	4 591	14%	-
End consumer's disposal of packaging waste 10	0	190	174	1%	-
TOTAL (excl. the primary production of meat)	74 470	31 589	31 807	100%	-57%

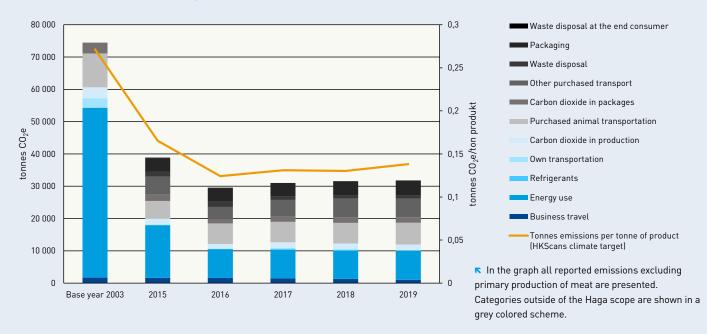
Emissions from the primary production of meat	2018	2019	Change 2018-2019
Primärproduktion av nötkött	956 000	888 000	-7%
Primärproduktion av griskött	277 000	249 000	-10%
Primärproduktion av lammkött	35 000	29 000	-17%
TOTAL	1 268 000	1 165 000	-8%

Key indicators	Base year 2003	2018	2019	Change 2003-2019	Unit
Emissions per ton produced product (HKScans climate target) 11	0,27	0,13	0,14	-49%	ton CO <sub>2</sub> e/ton product

- 1. Refers only to cars
- 2. The carbon dioxide is a residual product from the industry. Aproximately half is emitted during production (scope 1) and half when the end consumer opens the carbon dioxide filled packaging (scope 3).
- 3. Emissions from production of purchased electricity, district heating or district cooling, assuming that all is unspecified (residual mix).
- 4. Refers to business air travel, rai travel and hotels.
- 5. Refers to fuels consumed in scope 1 and scope 2. Also includes purchased electricity for processes outside HKScan's 10. Refers to emissions caused by waste disposal by the consuoperations
- Reduction of emissions for" purchased energy" in scope 2.
- 7. Refers to refrigerated transports and transfer of animals
- 8. Refers to waste disposal (to landfill, materials recycling and production of biogas). Calculated from 2012 onwards.
- 9. Emissions from the production of packaging materials
- Calculated from 2012 onwards.
- mer. Calculated from 2012 onwards.
- 11. Note that the calculations for the key indicator have changed. in order to avoid double counting. All previous years, including the base year 2003, have been updated. The adjustment refers only to production volume, not the consumption.

## **HKSCAN**

## Allocation of emissions 2003, 2015-2019



## **Analysis and comments**

HKScan's emissions within the Haga scope have decreased with 81 percent compared to the base year 2003. Compared to previous year, 2018, the emissions have decreased with 5 percent. The emission reduction is consistent throughout all categories, but the most significant reduction occurred in purchased energy. This can be led back to HKScan's continuous improvements in media reduction, investments in equipment and machinery etc.

Purchased electricity have in absolute terms decreased, but the emissions in scope 2 have increased compared to last year. This is due to a decrease in purchased hydro power.

There is a substantial reduction in emissions from business travel in scope 3 (320 tonnes  $\mathrm{CO_2e}$  in 2018 and 131 tonnes  $\mathrm{CO_2e}$  in 2019). This can partly be explained by the air travel restrictions the company introduced during the year and party due to reduced travels over all as a part of the company's environmental work. The emissions from refrigerants have more than halved, as a result of lower replenishment need than the year before.

HKScan's climate target is in line with previous year. The target includes the Haga scope, production and distribution of fuel and purchased transports.

HKScan measures emissions that are outside the Haga scope and the own climate target as well. These emissions occur in scope 3 and include production of packaging, waste management (both in production and at the end customed) and other purchased transports. In total, these entries account for 13 060 tonnes  $\rm CO_2e$ . In this climate disclosure, HKScan also report the emissions from the primary production of meat. This has not been done before and the results can be seen in a separate table. The primary production of meat is the most significant emissions in scope 3.

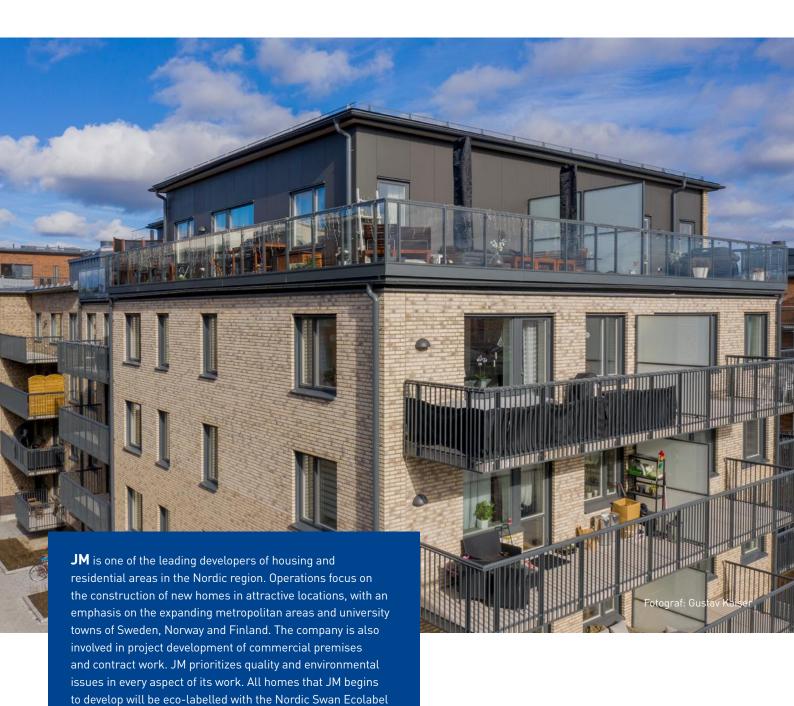
## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Emissions from primary production of meat represent the most significant source of emission in HKScan scope 3. Rearing cattle, in particular, causes significant emissions of greenhouse gases, especially methane. However grazing cattle is required to preserve biodiversity and carbon retention the farmlands, and to maintain the open agricultural landscapes. The tradition of keeping cattle provides valuable ecosystem services and is a part of nature's circle. During 2019 Gårdsinitiativet was initiated, where HKScan work together with its distributers to decrease emissions and increase environmental benefits of Swedish meat.

from 2018. The company employs 2 600 people and generates

sales of SEK 16 billion. www.jm.se

# JM





## Climate targets

JM has a target to reduce emissions with a climate impact to close to zero by 2030. The objective is divided into subtargets which cover own emissions from transport of personnel and energy use (at least 85 percent below the base year of 2010), as well as indirect emissions from machinery, goods transports, construction material, the energy performance of buildings, and the climate footprint of residents. Energy use in development properties is not included in the target. This is because energy measures are implemented as soon as there is an opportunity to develop the property. Regarding emissions occurring during the stage of production of building materials and the running of the buildings, the target close to zero applies to the part of the climate impact that JM is able to influence.

## Actions taken in 2019

- During the year, priority has been given to mark all new housing with the Nordic Swan Ecolabel. The labelling implies that JM from 2018 onwards builds housing with even lower environmental- and climate impacts, for example by requiring lower levels of energy use than stipulated by current applicable rules. During 2019, the calculated energy need in new housing was down to 55 kWh/m2 (excluding household- and operational elec-
- In order to decrease JM:s climate impact, new environmental requirements have been implemented for vehicle fuels, transports and machinery. During the year, the guidelines for business cars and travels have been
- Several pilot projects have been in progress during the year, among others a fossil free construction site, testing of concrete with less climate impact, solar panels on construction barracks and residential buildings as well as climate declarations for buildings using life cycle assessments.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2010	2018	2019	Share of total 2019	Change 2010-2019
Scope 1	5 755	4 241	3 282	23 %	-43 %
Business travel <sup>1</sup>	3 970	3 416	2 681	19%	-32 %
Heating	1 785	825	601	4%	-66 %
Scope 2	2 544	1 481	1 369	10 %	54 %
Purchased energy <sup>2</sup>	9 608	10 616	6 068		
Reduction through purchase of renewa-ble elec-	-7 065	-9134	-4699		
tricity or district heating with Guarantee of Origin <sup>3</sup>					
Scope 3, Haga scope	357	493	366	3 %	103 %
Business travel <sup>4</sup>	357	493	366	3%	3 %
TOTAL, Haga scope	8 656	6 216	5 017	35%	-42 %
Purchased transport	2 487	2 366	1 970	14%	-21 %
Leased machinery	8 663	8 105	5 329	37%	-38 %
Production and distribution of energy and vehicle	1485	1 160	948	7%	-36 %
fuels <sup>5 6</sup>					
- whereof fuels for business travel	692	733	615	4%	-11 %
- whereof fuels for production of energy	793	427	333	2%	-58 %
Energy use in new homes (first 2 years of use)	1 437	1 037	1 030	7%	-28 %
TOTAL (excl. Carbon offset)	22 728	18 883	14 295	100%	-37 %
Carbon offset 7	-359	-458	-331		-8 %
TOTAL (incl. Carbon offset)	22 369	18 425	13 963	98%	-38 %
Key indicators	2010	2018	2019	Change 2010-2019	Unit

Key indicators	2010	2018	2019	Change 2010-2019	Unit
Emissions per home 8	7,5	6,2	5,6	-26 %	tonnes CO <sub>2</sub> e/home

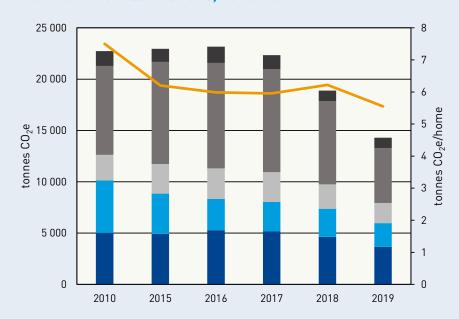
- 1. Car journeys in vehicles controlled by JM.
- 2. Refers to electricity used in production, electricity used in properties owned by JM, district heating used in production and district heating in properties owned by JM. Emissions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). In "Share of total" is Guarantee of Origin included
- 3. Reduction of emissions for "Purchased energy" in Scope
- 4. Refers to air, taxi, bus and train travel and hotels
- 5. Refers to fuels consumed in scope 1 and scope 2. These correspond to upstream emissions from the fuel (production of the fuel) and energy use in newly built properties in their first two years.
- 6. Production and distribution of energy and vehicle

fuels have been adjusted after completed verification, this since JM:s sustainability report for 2019 was published and the post did not correspond between the two.

- 7. JM applies carbon offset for air travels
- 8. Excluding energy use in new homes the first two



## Allocation of emissions 2010, 2015-2019





The bar graph shows which categories are included in the Haga scope. Categories which fall outside the scope are shown in a grey color scheme.

## **Analysis and comments**

JM:s emissions within the Haga scope have been reduced with 42 percent since the base year 2010, and with 19 percent since 2018. This can, to a large extent, be explained by a reduction in number of homes built. Emissions per home have decreased with 10 percent since last year.

Emissions from car journeys in vehicles controlled by JM, dropped by 22 percent since last year. The major contributor to this drop would be that employee cars used in service have decreased with 24 percent (fuel consumption in service cars is basically unchanged) since last year. Also, the reduction obligations for vehicle fuels have been present throughout the entire 2019 while only present during the second half of 2018 which had an impact on the emission reductions.

Other business travel emissions have decreased with 26 percent compared to last year, due to a reduction in number of flights.

In addition to the business travel included in the Haga scope, JM also includes other emissions in scope 3. Among these, emissions from outsourced transportation and machinery has dropped by 17 and 34 percent respectively, compared to last year. Due to the previous mentioned reduction in number of homes built. JM have also chosen to report the emissions corresponding to the energy consumption in newly built properties during the first two years, these emissions have decreased by 28 percent since the base year 2010. JM carbon offset business travel by air.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Utsläppen från tillverkning av byggmaterial ingår inte i JM:s klimatbokslut och utgör en betydande utsläppskälla i scope 3. JM har viss rådighet över detta och i egenskap av en stor materialanvändare identifierar JM de produkttyper i produktionen som har en stor klimatpåverkan och arbetar löpande gentemot klimateffektivare lösningar av dessa. JM driver flera initiativ internt för att minska klimatpåverkan från materialen genom att effektivisera materialanvändningen, minska uppkomsten av byggavfall och skapa mer cirkulära materialflöden. Bostäderna utvecklas löpande mot allt bättre energiprestanda – mot minskat energibehov och minskad klimatpåverkan under byggnadernas drift och förvaltning.

# LANTMÄNNEN





## **Climate targets**

- A reduction of emissions from production by 40 percent relative to revenue by 2020, from 2015 levels.
- Fossil free production in Sweden and Norway by 2025, other Nordic countries by 2030 and the rest of Europe 2040.
- By 2020, enhance energy efficiency by 3 percent per year in relation to production volumes.
- Reduce emissions from purchased transports with 70 percent by 2030, per own value added, with 2009 as base year.
- Create conditions for a sustainable primary production, halving the climate impact every decade in order to be climate neutral by 2050.

## Actions taken in 2019

- Continued efforts towards enhanced energy efficiency and phasing out of fossil fuels. Transition to renewable origin-labelled electricity in additionally 4 countries.
- Klimat & Natur, Lantmännen's program for future cultivation, have been updated with criteria for fossil free farms and thriving zones for biodiversity.
- Mapping the prerequisites for a sustainable Swedish agriculture sector by 2050, summaries in the report "Framtidens jordbruk". In collaboration with Yara, a pilot project was launched with the ambition to create the world's first fossil free food chain.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2009	2018	2019	Share of total 2019	Change 2009-2019
Scope 1	58 145	10 605	10 197	11%	-82 %
Business travel	4 508	3 755	3 724	4%	-17%
Heating	53 637	6 850	6 473	7%	-88%
Scope 2	100 138	18 231	11 611	13%	-88 %
Purchased energy <sup>1</sup>	100 138	151 454	139 560		
Reduction through purchase of renewa-ble electricity or district heating with Guarantee of Origin $^{\rm 2}$	0	-133 223	-127 949		
Scope 3, Haga scope	2 893	2 878	3 012	3%	4 %
Business travel <sup>3</sup>	2 893	2 878	3 012	3%	4%
TOTAL, Haga scope	161 177	31 714	24 819	27%	-85%
Purchased goods transport <sup>4</sup>	79 867	65 472	61 600	67%	-23%
Production and distribution of energy and vehicle fuels 5	32 993	9 137	5 985	6%	-82%
- whereof fuels for business travel	953	867	873	1%	-8%
- whereof fuels for production of energy	32 040	8 270	5 111	6%	-84%
TOTAL (excl. Carbon offset)	274 037	106 323	92 404	100%	-66%

Key indicators	2009	2018	2019	Change 2009-2019	Unit
Emissions per unit of revenue	14,2	5,5	4,4	-69 %	tonnes CO <sub>2</sub> e/MSEK

<sup>1.</sup> Emissions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). The emission factor for residual mix increased by around 150 percent between 2009 and 2014

<sup>2.</sup> Reduction of emissions for "Purchased energy" in scope 2.

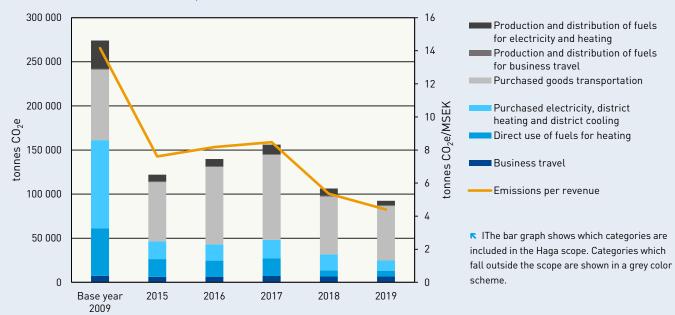
<sup>3.</sup> Refers to business air travel and rail journeys.

 $<sup>{\</sup>it 4. Refers to goods transportation provided by external contractors.}\\$ 

<sup>5.</sup> Refers to fuels consumed in scope 1 and scope 2.



## Allocation of emissions 2009, 2015-2019



## **Analysis and comments**

Emissions from Lantmännen have increased the last few years but last year (in the 2018 report) Lantmännen broke the trend and disclosed record low emissions compared to the base year. This year Lantmännen have decreased their emissions even further and disclose a reduction of 13 percent compared to last year. Lantmännen's total emissions have decreased with 66 percent compared to the base year 2009. The decrease can be led back to the purchase of renewable guarantee of origin-labelled electricity, the transition from fuel oil to bio-based alternatives and the fact that use of natural gas has been replaced by biogas in the own production. Within the Haga scope, emissions have decreased with 85 percent since the base year and the company's key indicator, emissions per unit of revenue, have decreased with 69 percent. This is mainly the result of reduced emissions and increased turnover.

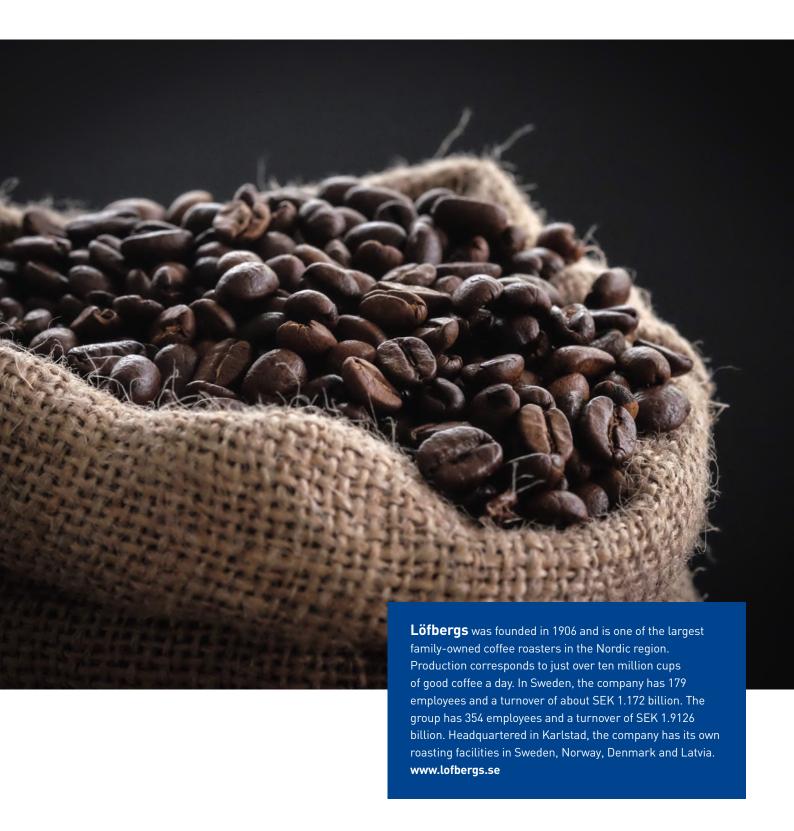
Purchased goods transport in scope 3 account for the majority of Lantmännen's total emissions (67 percent). Emission reductions in this category has therefore a significant effect on the total emission reduction. Since the base year 2009, emission from purchased goods transport have decreased with 23 percent, due to an escalation in the share of biofuels. Between the years 2009 and 2019 the share of biofuels has gone from around 10 percent to make up about two thirds of the total fuel consumption. This year, one of the transport providers was substituted by one with better climate performance which could partly explain the change from previous year.

Emissions from purchased energy in scope 2 have decreased with 36 percent compared to last year. As a result of purchased renewable guarantee of origin-labelled energy, the emissions in this category have decreased with 88 percent since the base year even though the total energy consumption have increased.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Lantmännen's reported scope 3 emissions include the purchased freight transports. business travel and production of purchased energy and fuels. In 2018 the purchased freight transports represented a significant part of the reported emissions. Emissions from growing grain and other ingredients are not included in Lantmännen's disclosure, it is however an important focus area in Lantmännen's sustainability work. For example, with development of new cultivation concepts with lower climate impact and R&D work for increased sustainability throughout the value chain from field to fork. See "actions taken in 2019".

# LÖFBERGS





## **Climate targets**

Löfbergs' climate target is to reduce greenhouse its own carbon dioxide emissions by 40 percent between 2005 and 2020. The target is related to the volume of coffee produced and covers emissions and energy use in own production and business travel. An important part of the climate target is that production is to be fossil free by 2020. Moreover, by 2030, Löfbergs' packaging will consist exclusively of renewable or recycled material.

#### Actions taken in 2019

- Continues to phase out fossil-based plastics and replaced it by a plant-based alternative. This reduces the climate impact of the packaging by more than 30 percent at the first stage
- Decrease emissions from business travel by having more plug-in hybrid electric company vehicles. By 2020, all new company cars are to be rechargeable or fuelled by biogas
- Increases the blend of renewable propane at roasting, which contributes to a reduction of the climate impact and making Löfbergs one of the most efficient in Europe. Less than 0,1 tonnes of carbon dioxide emissions per ton coffee produced.

5 : (1	2005 Base	0017/0010	0010/0010	Share of total	Change 2005-
Emissions (tonnes CO <sub>2</sub> e) <sup>1</sup>	year	2017/2018	2018/2019	2018/2019	2018/2019
Scope 1	2 694	1 876	1 551	1%	-42 %
Roasting	1 623	1 613	1 316	1,03%	-19 %
Energy	295	0	0	0,0%	-100 %
Business travel <sup>2</sup>	265	263	235	0,2%	-11 %
Own transports	511	0	0	0,0%	-100 %
Scope 2	459	57	45	0%	-90 %
Purchased energy	459	1 808	1 414		
Reduction through purchase of renewable electricity or	0	-1 751	-1 369		
district heating with Guaran-tee of Origin <sup>3</sup>					
Scope 3, Haga scope	236	506	350	0%	48 %
Business travel <sup>4</sup>	236	515	354	0,3%	50 %
Reduction through purchase of bio jet fuel through Fly	0	-9	-4		
Green Fund <sup>5</sup>					
TOTAL, Haga scope	3 390	2 439	1 946	2 %	-43 %
Production and distribution of energy and vehicle fuel 6	375	386	357	0,3%	-5 %
Purchased transports 7	6 825	10 122	10 518	8,2%	54 %
Packaging <sup>8</sup>	2 836	2 803	2 423	1,9%	-15 %
Coffee cultivation 9	122 873	126 983	112 244	88,0%	-9 %
TOTAL (excl. Carbon offset)	136 299	142 734	127 489	100 %	-6 %
"Sustainable Business" – carbon offset coffee. 11	0	-968	-956		
TOTAL (incl. Carbon offset)	136 299	141 766	126 533	99 %	-7 %

Key indicators	2005	2017/2018	2018/2019	Change 2005- 2018/2019	Unit
Emissions per tonne coffee produced (Haga scope)	0,15	0,09	0,08	-50 %	tonnes CO <sub>2</sub> e/tonne coffee produced
Emissions per tonne coffee produced (total)	6,00	5,28	4,87	-19 %	tonnes CO <sub>2</sub> e/tonne coffee produced
Emissions per tonne purchased green coffee (Haga	0,13	0,08	0,06	-51 %	tonnes CO <sub>2</sub> e/tonne purchased green
scope)					coffee
Emissions per tonne purchased green coffee (total)	5,21	4,37	4,16	-20 %	tonnes CO <sub>2</sub> e/tonne purchased green
					coffee

- Löfbergs' disclosure covers its Swedish operations as well as its production site in Viborg, Denmark.
   The disclosure of Viborg all parts except for business travel are included in the reporting.
- 2. Refers to leased vehicles
- 3. Reduction of emissions for "Purchased energy" in Scope 2.
- Refers to air, rail and taxi travels and hotel.
- Reduced emissions from air travel through Fly Green Fund, which implies a higher share of bio jet fuel. During 2017/2018 and 2018/2019, 75 percent was allocated to bio jet fuel and the remaining 25 percent funded research development.
- 6. Refers to fuels consumed in scope 1 and scope 2.
- Refers to transportation of green coffee beans from grower to factory, transportation of packaging
- materials and distribution. The calculation method for transportation of packaging has changed.
- Extraction of raw material and production of packaging.
- 9. Coffee cultivation, including associated processe
- 10. All carbon offset is carried out through CDM Gold standard projects 2012/2013-2018/2019.



## Allocation of emissions 2005, 2014/2015-2018/2019



## **Analysis and comments**

Löfbers' climate disclosure includes Swedish operations and the production facility at Viborg (Denmark). Löfbergs' include the climate impact of the coffee cultivation that it purchases, not adjusted for the carbon sinks provided by the coffee plantations and their shade plants, hence they are reporting on the most significant emissions in the value chain. Roasting stand for the majority of emissions within the Haga scope, and 1.0 percent of the total emissions. From 2017, Löfbergs purchase a Bio Mix with bio propane, reducing  $\mathrm{CO}_2\mathrm{e}$  emissions by 575 tonnes in 2018/2019 – a 28 percent reduction of  $\mathrm{CO}_2\mathrm{e}$  emissions compared to if only fossil fuels had been used in the roasting process.

Thanks to an increasing share of certified coffee the emissions that occur during cultivation have decreased with more than 14 000 tonnes (-12 percent). This is a great contributor to Löfbergs' total emission reduction of 11 percent.

In relative terms, the emissions per tonne produced coffee have decreased with 19 percent since 2005, and with 20 percent per tonne purchased green coffee.

Emissions from electricity and heating have reduced substantially, partly thanks to the use of district heating rather than oil-fired systems, and partly to the fact that electricity consumption in Sweden and Denmark is purchased as origin-labelled wind power.

Emissions from business travel is still higher than they were 2005, but they have decreased substantially since last year.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Coffee cultivation is the main cause of emissions in scope 3. Löfbergs does not have its own plantations, but nonetheless is working in various ways to reduce the climate impact of the plantations. For example, through various development projects. In Coffee & Climate, 85 000 small-scale coffee cultivators have been given education and the tools to meet climate change. Löfbergs also work on increasing demand and access to coffee from certified farms. The proportion of certified coffee keep increasing. Today all of Löfbergs' coffee has at least one type of certification.

# McDONALD'S





McDonald's Sverige has a target of a 40 percent reduction in carbon dioxide emissions by 2020 relative to the number of customers, from the base year of 2010. The target includes emissions in scope 1, scope 2 and business travel in scope 3. The 2020 target was fulfilled in 2016. In addition, there is a target to reach 95 percent renewable fuel for deliveries of input to the restaurants by 2020. In line with other member companies in the Haga Initiative, McDonald's has adopted a target of fossil free operations by 2030, and that McDonald's operations have emissions close to zero by 2030.

- McDonald's has increased the number of quick chargers for plug-in electric vehicles near its restaurants, and in 2019 enough electricity was transmitted to drive more than 3 176 000 kilometres, an increase of 133 percent compared to 2018.
- During the year, the offer of vegetarian options was developed and McDonalds's launched McFalafel and Crispy Cheese. McDonald's ambition is that 50 per cent of purchased protein should be vegetarian, chicken or fish by 2020. In 2019, that share was 42 percent.
- McDonald's continues the work to phase out packaging made of plastic. During 2019 the consumption of
  plastic straws decreased with 20 percent. The plastic milkshake cup was replaced by cup in paper, and the
  plastic lid for salads was removed during the year. The changes made has resulted in a yearly decrease in
  plastic consumption by 70 tonnes.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2010	2018	2019	Share of total 2019	Change 2010-2019
Scope 1	1 112	546	360	4 %	-68 %
Business travel <sup>1</sup>	251	122	60	1 %	-76 %
Refrigerants	861	424	300	4 %	-65 %
Scope 2	7 139	677	699	9 %	-90 %
Purchased energy 2)	33 834	32 231	23 818		
Reduction through purchase of renewa-ble	-26 695	-31 554	-23 119		
electricity and district heating with Guarantee of					
Origin <sup>3</sup>					
Scope 3, Haga scope	427	325	234	3 %	-45 %
Business travel <sup>4</sup>	427	325	234	3 %	-45 %
TOTOAL, Haga scope	8 678	1 548	1 293	16 %	-85 %
Waste disposal	6 078	5 758	5 884	73 %	-3 %
Production and distribution of energy and vehicle	3 061	886	870	11 %	-72 %
fuels <sup>5</sup>					
- whereof fuels for business travel	23	11	2		-93 %
- whereof fuels for energy production	3 038	874	868		-71 %
TOTAL McDonald's Sverige's climate target	17 817	8 191	8 047	100%	-55%
Logistics <sup>6</sup>	3 144	1 105	992		-68 %

Key indicators	Base year 2010	2018	2019	Change 2010-2019	Unit
Emissions per customer visit (climate target)	215,4	119,3	116,3	-46 %	g CO <sub>2</sub> e/customer
Emissions per month of operation (climate target)	6,5	3,4	3,3	-49 %	ton CO <sub>2</sub> e/month
Energy use per customer visit	1,6	1,6	1,5	-8 %	kWh/customer

<sup>1.</sup> Refers only to company cars

<sup>2.</sup> Emissions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.

<sup>3.</sup> Reduction of emissions for "Purchased energy" in scope 2.

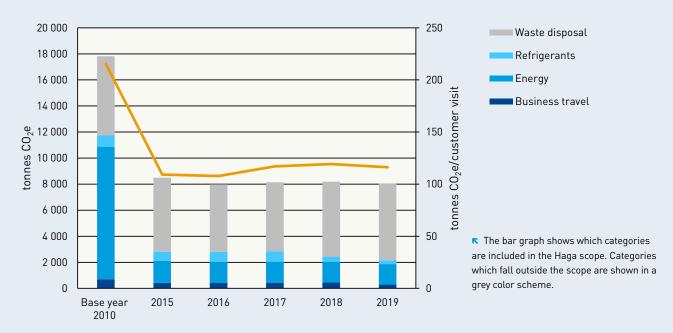
<sup>4.</sup> Refers to business air travel, train and taxi journeys.

<sup>5.</sup> Refers to fuels consumed in scope 1 and scope 2.

<sup>6.</sup> From 2015, the consumption of diesel from the sub-suppliers of the distribution supplier HAVI is included.



#### Allocation of emissions 2010, 2015-2019



#### **Analysis and comments**

McDonald's Sweden has reduced its emissions in the Haga scope by 85 percent since the base year 2010. The Haga scope includes about 16 percent of the total calculated emissions, thus the company has set its own climate target where waste management, production and distribution of energy and also vehicle fuels are included. Within this emission target, the company has more than halved (55 percent) its emissions compared to the base year (2010). Emissions per customer visit decreased by 45 percent since the base year.

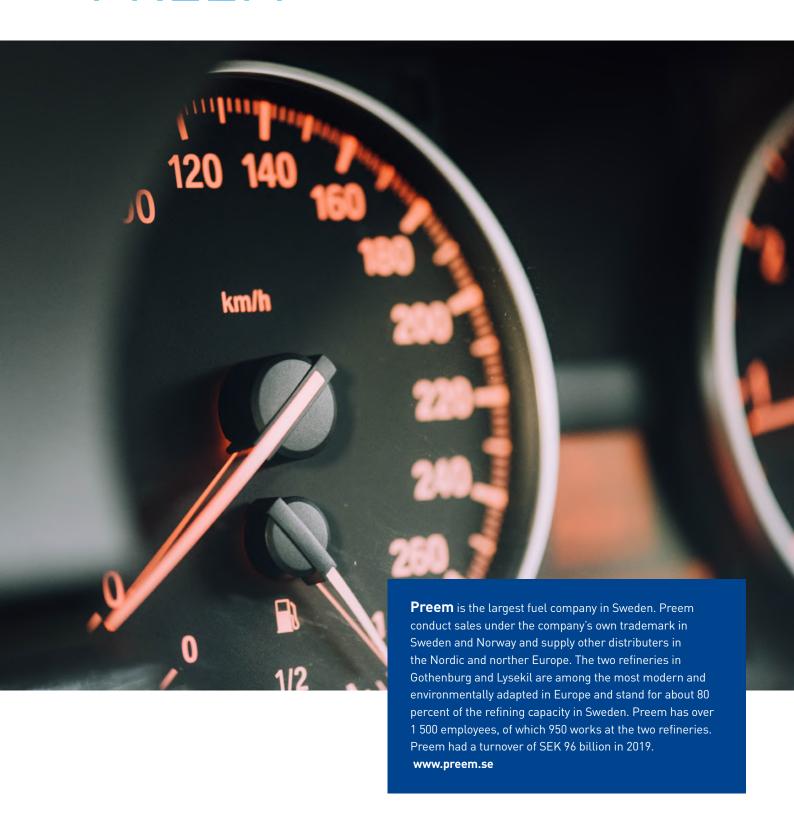
Waste disposal accounts for 73 percent of McDonald's Sweden's total emissions. These have declined only marginally since the base year and increased since 2018. On the other hand, emissions from business travel have decreased compared both to the base year and 2018. This decline can be explained by a reduced number of air travels and less emissions from company cars. The reduced emissions from company cars could be a result of changing the emission factor, to one that is more specific and better represent the actual fuel consumption.

Since 2017 the company no longer purchases any unspecified electricity, but all purchased electricity is labelled with Good Environmental Choice (Bra Miljöval) or origin-labelled renewable electricity. This has, together with about three percent lower energy consumption, contributed to the reduction of purchased electricity and district heating (scope 2) by 90 percent since the base year.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

McDonald's most significant emission in scope 3 is purchased agricultural products. McDonald's was one of the initiators of the Global Round Table of Sustainable Beef, an organization that promotes sustainability in beef production around the world. In Sweden, McDonald's restaurant industry is the largest purchaser of Swedish beef and has cooperated with LRF for many years to increase the Swedish self-sufficiency of beef. McDonald's Sweden is also working to constantly develop its menu with different protein options. Today more than 40 percent are chicken, vegetarian and fish protein. As the first restaurant company in the world McDonald's global has set climate targets by 2030 that has been approved by the Science Based Targets initiative (SBTi), which includes reductions of emissions in the supply chain.

# **PREEM**





Preem targets net-zero emissions within the company's own production by 2040 and is also aiming at decreasing the emissions from the products produced. Net-zero emissions also include the value chain (incl. scope 3) by the latest 2035. There is a need for a substantial transition from fossil to renewable raw materials in order to reach these targets. Preem has accelerated this transition by including production of at least 5 000 000 m3 renewable fuels, compared to the 200 000 m3 that are being produced today. This green transition will be driven by R&D, building green value chains and adapting refineries.

#### Actions taken in 2019

Preem decided during 2019 to become the world's first climate neutral petroleum and biofuels producing company. The commitment is followed by a climate strategy that will be a driver for decreased emissions within own activities and the transition to renewable raw material that will generate emission reductions in scope 3. Several initiatives are already underway, below follows examples of additional initiatives taken in 2019.

- Europe's first facility for pyrolysis oil fuels, expected to be commissioned in 2021.
- Preem became part owner in SunCarbon with the purpose of producing lignin raw materials, to be used as a renewable raw material in the refineries.
- Permit application submitted regarding the built of Sweden's largest production facility for renewable diesel and jet fuel, located in Gothenburg.
- Carbon capture and Storage (CCS) equipment installed at Preem's refineries in Lysekil. This is Sweden's largest pilot plant for CCS and Preem collaborates with the Swedish energy agency.
- Signed a cooperation agreement with Vattenfall regarding the investigation of electrolysis with renewable energy at refineries to produce fossil free hydrogen for biofuel production.

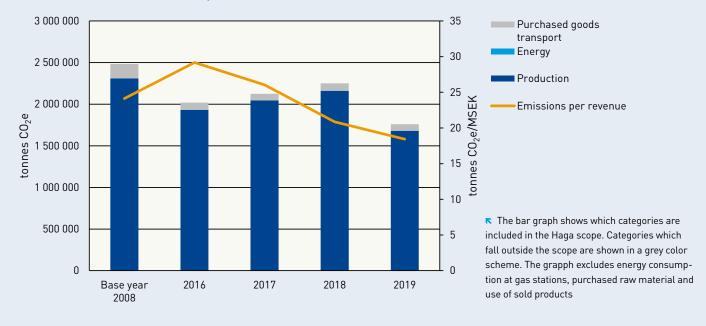
Emissions (tonnes CO <sub>2</sub> e)	Base year 2008	2018	2019	Share of total 2019	Change 2008-2019
Scope 1	2 310 605	2 161 398	1 680 765	3%	-27%
Production <sup>1</sup>	2 310 306	2 161 083	1 680 453	3,2%	-27 %
Business travel <sup>2</sup>	299	315	313	0,0%	5 %
Scope 2	1 021	230	279	0%	-73%
Purchased energy <sup>3 4</sup>	79 670	232 941	140 325		
Reduction through purchase of renewable electricity r district heating with Guarantee of Origin $^{5}$	-78 649	-232 711	-140 046		
Scope 3, Haga scope	925	1 145	795	0%	-14%
Business travel <sup>6</sup>	925	1 145	795	0,0%	-14 %
TOTAL, Haga scope	2 312 551	2 162 774	1 681 839	3 %	-27 %
Purchased transports 7	172 118	90 200	78 100	0,2%	-55 %
Energy consumption at gas stations		1 979	2 007	0,0%	
Purchased raw material		7 737 493	5 763 775	11,1%	
Use of sold products <sup>8</sup>		50 083 099	44 377 763	85,5%	
TOTAL (excl. Carbon offset) 9	2 484 669	60 075 545	51 903 484	100 %	-29 %
Carbon offset	-	-	-		
TOTAL (incl. Carbon offset)	2 484 669	60 075 545	51 903 484	100 %	-29 %

Key indicators	Base year 2008	2018	2019	Change 2008-2019	Unit
Emissions per revenue	25,93	27,06	21,78	-16 %	tonnes CO <sub>2</sub> e/MSEK

- 1. Combustion in Preem's refineries.
- $2. \ \mbox{Refers}$  to business travel with cars driven by employees.
- Emissions from production of purchased electricity, district heating or district cooling, assuming that all is unspecified (residual mix).
- 4. Emission factors for 2008, 2016 and 2017 have been adjusted,
- in order to reflect the consumption of electricity from with  $\mbox{\it Guarantee}$  of Origin
- 5. Reduction of emissions for "Purchased energy" in scope 2.
- 6. Refers to business air travel
- 7. Refers to purchased goods transportation by truck and freighter.
- Refers to use of Preem's sold products globally. Is not accounted for in total emissions and it is not possible to distinguish what share of those emissions derive from Sweden
- The change in comparison with the base year excludes the energy consumption at gas stations, purchased raw material and use of sold products.



#### Allocation of emissions 2008, 2016-2019



#### **Analysis and comments**

Within the Haga scope, Preem have reduced emissions with 27 percent compared to the base year 2008 and 22 percent compared to last year, going against the trend of increasing emissions previous year. Preem's refineries stand for 96 percent of the company's total emissions (excluding energy consumption at gas stations, purchased raw material and use of sold products). The decrease in emissions is connected to less purchased crude oil, production and sales due to planned maintenance downtime at the Lysekil refinery. Absolute emissions in Preem's value chain decreased with about 8 million tonnes (or 14 percent) compared to 2018, this includes the user phase. Note that 2018 was a year with full production.

Preem's key indicator, emissions per unit revenue, has dropped with 24 percent since the base year and with 12 percent since 2018. The key indicator is now 18,4 g  $\rm CO_2$ e/SEK. The drop can be explained by the substantial decrease in overall emissions.

Preem saw significant emission reductions as a result of decreased volumes, efficient planning and a modernization of the vehicle fleet. 55 percent compared to the base year and 13 percent compared to 2018.

From 2018 Preem include the climate impact from the use of the company's sold products (including purchases products) in the disclosure. The emissions in this category decreased with 5,7 Mtonnes (11 percent). Mostly due to the total decrease in production (13 percent). The  $\rm CO_2e$  savings from renewable fuel sales increased with 35 percent, from 1,5 Mtonnes till 2,0 Mtonnes.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Customers use of the company's fuels make up 86 percent of Preem's total emissions and has thereby the most significant climate impact in scope 3. The purchase of raw materials is the second largest contributor to Preem's scope 3 emissions, 11 percent. The emissions occur primarily when the customers, and their customers, use the fuel. The target for 2030 is to increase the production of renewable fuel to 85 million tonnes. This would result in a reduction of 12,5 million tonnes CO<sub>2</sub>e, compared to fossil fuels, which make up about 20 percent of Sweden's national emissions. In order to reach netzero emissions 2045 there is need for further 38 million tonnes CO<sub>2</sub>e reduction in scope 3. This requires an extensive transition from fossil fuels to renewable alternatives.

# STENA RECYCLING





Stena Recycling has an overall target of a 40 percent reduction in climate impact by 2020 compared to 2008. It is a relative goal based on the quantity of materials collected.

- The electrification of material processors and other machines continued during 2019, 16 rucks and 3 material processors now run on electric power.
- Project for optimizing the paper processors have contributed to a more efficient production, energy savings and decreased costs for maintenance.
- New guidelines concerning purchases of plastic products resulted in 90 percent of the purchased waste bins were made from recycled plastics.

Emissions (tonnes CO <sub>2</sub> e)	Base year 2008	2018	2019	Share of total 2019	Change 2008-2019
Scope 1	34 405	18 740	17 002	40%	-51%
Business travel	834	1 323	1 410	3%	69%
heating <sup>1</sup>	11 194	2 566	2 794	7%	-75%
Own transports	8 776	3 789	4 590	11%	-48%
Machinery	13 601	11 062	8 209	19%	-40%
Scope 2	7 869	6 651	1 239	3%	-84%
Purchased energy <sup>2</sup>	7 869	25 118	16 591		
Reduction through purchase of renewable electricity	0	-18 467	-15 353		
or district heating with Guarantee of Origin <sup>3</sup>					
Scope 3, Haga scope	992	918	1 140	3%	15%
Business travel <sup>4</sup>	992	918	1140	3%	15%
TOTAL, Haga scope	43 266	26 309	19 381	53%	-55%
Purchased transports 5	23 036	19 526	19 281	45%	-16%
Production and distribution of energy and vehicle	5 959	3 990	4 286	10%	-28%
fuels <sup>6</sup>					
- whereof fuels for business travel	218	268	330	1%	51%
- whereof fuels for own transportation	1 023	978	1150	3%	12%
- whereof fuels for own machinery	2 221	1 990	1 945	5%	-12%
- whereof fuels for energy production	2 510	<i>753</i>	861	2%	-66%
TOTAL (excl. Carbon offset)	72 261	49 825	42 947	100%	-31%
Carbon offset	0	0	0		
TOTAL (incl. Carbon offset)	72 261	49 825	42 947	100%	-31%

Key indicators	Base year 2008	2018	2019	Change 2008-2019	Unit
Emissions per unit of collected material	0,039	0,014	0,012	-69%	tonnes CO <sub>2</sub> e/tonne collected material

<sup>1.</sup> Including LPG consumption for flame cutting

<sup>2.</sup> missions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.

<sup>3.</sup> Reduction of emissions for "Purchased energy" in scope 2.

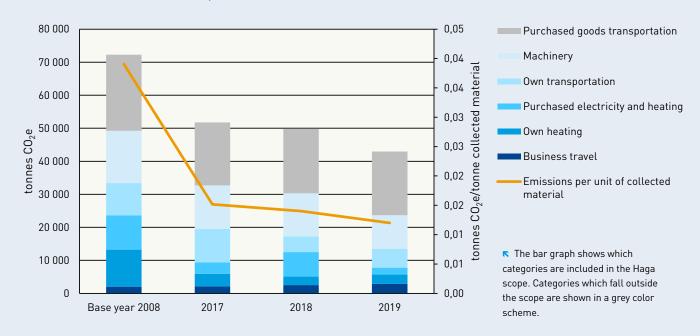
<sup>4.</sup> Air and rail travel.

<sup>5.</sup> Refers to outward and intermediate transports.

 $<sup>6.\</sup> Refers$  to fuels consumed in scope 1 and scope 2.



#### Allocation of emissions 2008, 2017-2019



#### **Analysis and comments**

Stena Recycling's emissions in the Haga scope have decreased by 55 percent since the base year 2008, and by 26 percent since last year. Emissions per unit of collected material, Stena Recycling's key indicator, have dropped with 69 percent since the base year and account today 0,012 tonnes CO.e/ ton collected material.

Thanks to a decision to purchase origin-labelled electricity from hydropower and a decreased electricity consumption (15 percent less than 2018), the company's dimate impact in scope 2 have decreased with 84 percent since the base year.

Emissions in scope 1 have decreased both compared to base year and to last year, with 51 percent and 9 percent, respectively. The emissions in scope 1 originates first and foremost from own transports, machinery and heating. Emissions are thereby closely related to the choice of energy fuel. An increased biodiesel mix have reduced the emissions from machinery with 26 percent compared to 2018. This exceeds the increased emissions connected with increased own transportation and processes. The increase in owned transport is due to a repurchase of previous transport divestment.

The purchased transports involve 45 percent of the company's total climate impact. The decommissioning and sales of own fleet operators resulted in an increase of purchased transports. In total, the emissions from transports have increased with 3 percent during 2019. Since the base year 2008, the total emissions from transports have decreased with 24 percent, partly due to an increase in biodiesel.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Emissions from Stena Recycling's customers' transports of waste to the facilities are not included in the emission disclosure and represent significant emissions in scope 3. Stena Recycling is aware of these emissions and is working to reduce them by setting environmental requirements when outsourcing, such as requirements of vehicle performance and transport optimization.

## STOCKHOLM EXERGI





Stockholm Exergi's target is to reduce emissions by 40 percent by 2020, compared to 2010 levels. This includes renewable energy, recycling, enhanced efficiency, and as a last resort carbon offsetting. By 2030, 100 percent of the production shall be based on recycled or renewable energy and during 2022 the use of coal shall be phased out. Stockholm Exergi strives to create carbon sinks, by at least 800 000 tonnes  $CO_2$  per annum, through bio-CCS and biochar.

- The phase out of fossil fuels during 2019 the decision was made to close the company's last coal-fired boiler. The production from 2020 will mainly be covered by renewable or recycled energy.
- Waste separation A separation facility is under construction at Bristaverket, in collaboration with the waste company SÖRAB. Metals and 75 percent of all plastic can be sorted from household waste.
- Negative emissions A pilot bio-CCS facility was initiated at the CHP in Hjorthagen. The goal is larger facility
  that will be able to separate 800 000 tonnes biogenic CO<sub>2</sub> per annum. Together with Stockholm Vatten och Avfall the pilot product" district heating with negative emissions" were launched, based on their biochar facility.

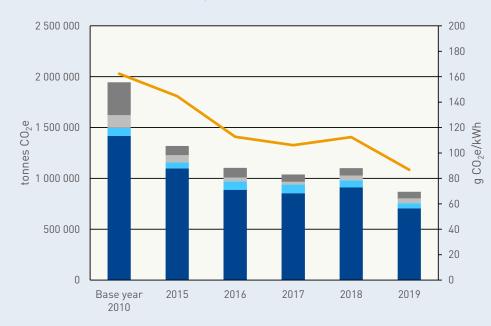
Emissions (tonnes CO <sub>2</sub> e) <sup>1</sup>	Base year 2010	2018	2019	Share of total 2019	Change 2010-2019
Scope 1	1 418 507	913 238	705 203	81,2%	-50%
Production <sup>2</sup>	1 418 156	912 957	705 002	81,2%	-50%
- CO <sub>2</sub> from burning of coal	624 340	461 020	274 401	31,6%	-56%
- CO <sub>2</sub> from burning of oil	420 232	95 859	68 483	7,9%	-84%
- CO <sub>2</sub> from burning fossil fuel fraction of municipal waste	210 756	303 737	326 149	37,6%	55%
- Other GHG related emissions	162 828	52 342	35 969	4,1%	-78%
Business travel <sup>3</sup>	351	281	201	0,02%	-43%
Scope 2	77 982	67 389	50 994	5,9%	-35%
Purchased electricity <sup>4</sup>	442 002	362 287	264 861		
Reduction through purchase of renewable electricity or district	-364 020	-294 898	-213 866		
heating with Guarantee of Origin <sup>5</sup>					
Scope 3	448 990	120 044	111 928	12,9%	-75%
Business travel <sup>6</sup>	176	179	132	0,02%	-25%
TOTAL, Haga scope	1 496 665	980 807	756 329	87%	-49%
Production by another district heating producer but supplied by	124 850	47 955	47 510	5,5%	-62%
Stockholm Exergi 7					
Production and distribution of energy and vehicle fuels 8	323 963	71 910	64 286	7,41%	-80%
- whereof fuels for business travel 9	75	57	45	0,01%	-40%
- whereof fuels for energy production	323 888	71 853	64 240	7,4%	-80%
TOTAL (excl. Carbon offset)	1 945 479	1 100 672	868 125	100%	-55%
Carbon offset	-7 797	-351 160	-231 963		
TOTAL (incl. Carbon offset)	1 937 682	749 513	636 162		-

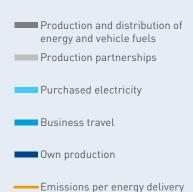
Key indicators	Base year 2010	2018	2019	Change 2010-2019	Unit
Emissions from production 10	158	105	85	-46 %	g CO <sub>2</sub> e/kWh
Emissions per energy delivery before carbon offsetting <sup>11</sup>	162	108	87	-47 %	g CO <sub>2</sub> e/kWh
Emissions per energy delivery after carbon offsetting 12	162	74	64	-61 %	g CO <sub>2</sub> e/kWh

- Emissions of CO<sub>2</sub>, methane, refrigerants and N20 from Stockholm Exergi's own production.
- refers to methane, refrigerants and N<sub>2</sub>0 Tonnes CO<sub>2</sub>e adjusted according to IPCC AR5 as from 2017
- Refers to business car travel. Emissions in 2010 are assumed to be same as in 2014.
- 4. Emissions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin. The marketbased method is used when calculating scope 2 emissions. Had the location-based method been applied the emissions
- had in scope 2 had been 71 kTonnes)
- Reduction of emissions for "Purchased energy" in scope 2.
   Stockholm Exergi purchase electricity with Guarantee of Origin for its district heating and district cooling production
- Refers to business air travel. Emissions in 2010 are assumed to be same as in 2014.
- Emissions by actors other than Stockholm Exergi in the
  case of production partnerships for district heating. The
  emissions include both emissions from plants and from the
  extraction and distribution of the fuels for these plants
- 8. Production refers to extraction and processing of the fuels.
  In addition to distribution of the fuels, also transportation
- of additives and ashes as well as upstream emissions from purchased electricity and emissions from air thermography.
- 9. Emissions in 2010 are assumed based on the value from 2014.
- 10. Total emissions from production of electricity, heating and
- Total emissions from scope 1, 2 and 3 for the total supply of district heating, electricity and district cooling before carbon offsetting.
- 12. Total emissions from scope 1, 2 and 3 as above for the total supply of district heating, electricity and district cooling after carbon offsetting.



#### Allocation of emissions 2010, 2015-2019





The bar graph shows which categories are included in the Haga scope. Categories which fall outside the scope are shown in a grey color scheme. The category Production partnerships includes emissions from other heat producers delivering heat to Stockholm Exergi's district heating network.

#### **Analysis and comments**

Emissions from Stockholm Exergi's own production decreased significantly during 2019 (23 percent), compared to previous year. Compared to the base year 2010, emission have reduced by 50 percent. During the second half of 2019, the use of coal as fuel almost ceased. This resulted in an almost 40 percent decrease in the use of coal as fuel compared to 2018 and is the reason behind the significant emissions reduction in Stockholm Exergi's own production. There has been a reduction in oil usage as well, compared to 2018. However, during 2018 there was a biofuel deficiency resulting in an increased use of oil that year. Fossil fuels in production has been replaced by biofuels and heat pumps, as well as an increased waste incineration which explains the increased emissions from waste incineration. "Other GHG related emissions" include N<sub>2</sub>O, methane and refrigerants and these have decreased with 31 percent. The relation between N<sub>2</sub>O emissions and the burning of coal is the main reason for the decrease.

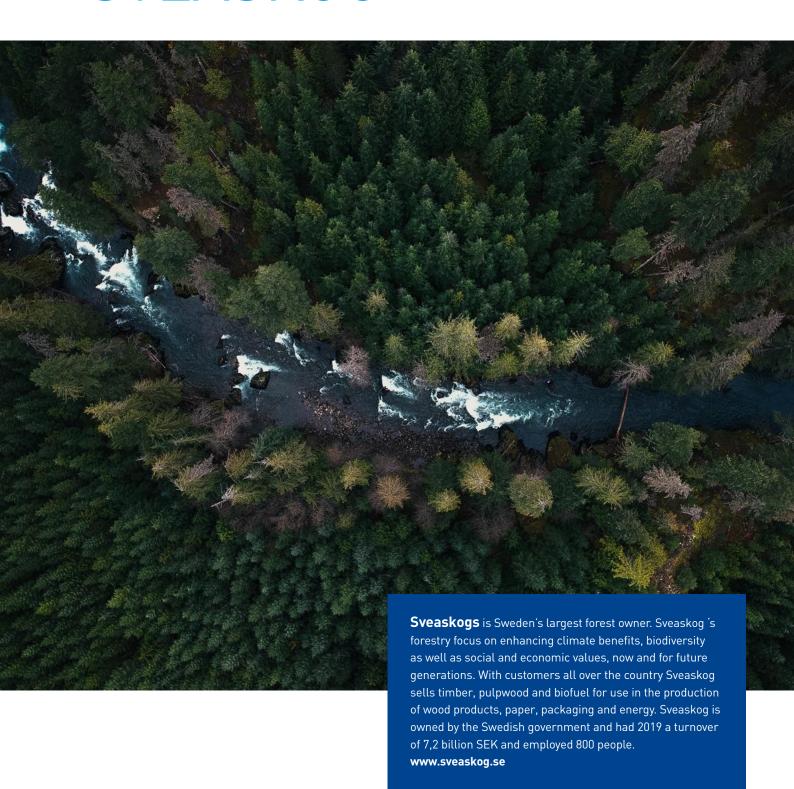
The Haga scope covers 87 percent of Stockholm Exergi's total emissions and has been reduced by 49 percent compare to the base year and 23 percent compared to previous year. The key indicators emissions per energy delivery and emissions from production have both decreased with approximately 45 percent since the base year and 20 percent since 2018.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Stockholm Exergi has for many years reported all significant greenhouse gas emissions.

Emissions from extraction, processing and transportation of the fuels to the plants account for around eight percent of emissions. These are included in the disclosure in scope 3. Emissions from the extraction of fuels are relatively low, as a large proportion of the fuels are residues from the forest, industry and society.

# **SVEASKOG**



### **业** SVEASKOG

#### **Climate targets**

The target of Sveaskog is to reduce direct as well as indirect carbon dioxide emissions by a minimum of 30 percent by 2020 compared to 2010 levels, relative to the volume of wood raw material supplied. With 2005 as the base year, the goal is to reduce carbon dioxide emissions within the Haga scope by 40 percent by 2020. This has already been achieved.

- New supplier agreement signed regarding vehicle fuel, in order to secure a long-term supply of fuel for own machinery.
- Efficiencies in transport logistics. Taken part of several R&D projects that will enable heavier and longer transports, resulting in fewer transports and reduced emissions.
- Co-partner of SunCarbon AB that develops a technique for lignin oil from pulp mills black liquor, which can replace products based of fossil raw material.

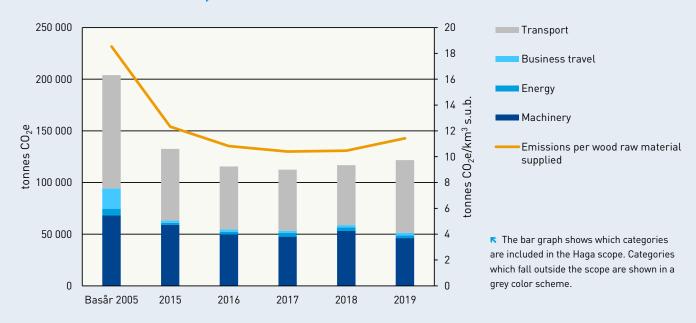
Emissions (tonnes CO <sub>2</sub> e)	Base year 2005	2018	2019	Share of total 2019	Change 2005-2019
Scope 1	30 766	9 074	8 359	6,9%	-73 %
Business travel <sup>1</sup>	13 380	1 817	1 722	1,4%	-87 %
Energy <sup>2</sup>	5 084	2 971	2 311	1,9%	-55 %
Machinery	12 303	4 286	4 326	3,6%	-65 %
Scope 2	776	3	4	0,0%	-99 %
Purchased energy <sup>3</sup>	776	5 714	4 340		
Reduction through purchase of renewable electricity or district heating with Guarantee of Origin <sup>4</sup>	0	-5 712	-4 336		
Scope 3, Haga scope	643	267	237	0,2%	-63 %
Business travel <sup>5</sup>	643	267	237	0,2%	-63 %
TOTAL, Haga scope	32 185	9 344	8 600	7,1%	-73 %
Purchased transports	109 631	57 937	70 254	57,8%	-36 %
Leased machinery	53 576	46 478	39 656	32,6%	-26 %
Production and distribution of vehicle or energy fuels <sup>6</sup>	8 542	2 997	3 136	2,6%	-63 %
- whereof fuels for business travel	5 575	328	490	0,4%	-91 %
- whereof fuels for energy production	751	389	345	0,3%	-54 %
- whereof fuels for own transport and machinery	2 216	2 280	2 301	1,9%	4 %
TOTAL (excl. Carbon offset)	203 934	116 756	121 646	100 %	-40 %
Carbon offset	0	0	0		
TOTAL (incl. Carbon offset)	203 934	116 756	121 646	100 %	-40 %

Key indicators	Base year 2005	2018	2019	Change 2005-2019	Unit
Emissions per unit of wood raw material supplied (total)	18,5	10,5	11,4	-38 %	ton CO <sub>2</sub> e/km³fub

- $\ensuremath{\mathsf{1.}}$  Company cars, cars used for company business and leased cars
- 2. Heating using own boilers.
- 3. Emissions from production of purchased electricity, district heating or district cooling assuming that all are unspecified (residual mix). "Share of total 2019" includes contracts for renewable energy with Guarantee of Origin.
- 4. Reduction of emissions for "Purchased energy" in scope 2  $\,$
- 5. Air and rail travel.
- 6. Refers to fuels consumed in scope 1 and scope 2.

### 业 SVEASKOG

#### Allocation of emissions 2005, 2015-2019



#### **Analysis and comments**

The majority of Sveaskog's emissions originate from purchased transports. Even though these emissions have increased with 21 percent compared to 2018, they have decreased with approximately 36 percent since the base year. The increase can be deduced to the vehicle fuel reduction obligations, since the transport entrepreneurs use renewable fuels to the greatest extent possible. As a result of the reduction obligations, the access to HVO that is not produced from PFAD is limited which has led to an increased amount of diesel being used during 2019. For leased machinery on the other hand, the opposite effect can be seen since regular diesel is the most common fuel. The reduction  $(CO_2)$  quota scheme has helped reduce the emissions in this category by almost 15 percent compared to 2018 and 26 percent compared to the base year.

Emissions from own machinery have more than halved since 2005 but increased compared to last year, also as a result of the reduction obligations. It affects the emissions from production of fuels for own machinery in scope 3.

The key indicator, emissions per unit of wood raw material supplied, has since the base year shown a downward trend. However, it has slightly increased during the last two years, explained by the increased emissions from own and leased machinery. Compared to the base year the key indicator has decreased with 38 percent.

## MOST SIGNIFICANT EMISSIONS IN SCOPE 3

Sveaskog's most significant emission in scope 3 derives from timber transportation by road and from forestry machinery. These fall within scope 3 and are reported in the disclosure under purchased transports and under own or leased machinery and are included in the climate target. Sveaskog encourages the use of renewable fuels for leased machinery and purchased transports.

#### **APPENDIX 1: BIOGENIC EMISSIONS**

Biogenic carbon dioxide emissions arise when biofuel is used for heating, production and transportation. Combustion in air of fuel containing carbon results in the formation of carbon dioxide, regardless of whether the fuel is fossil or renewable. In the medium to long term, however, only carbon dioxide emissions from fossil fuels contribute to the greenhouse effect, because biofuels absorb just as much carbon dioxide during their growth as is released on combustion. Carbon dioxide emissions from combustion of biofuels are known as biogenic carbon dioxide emissions. In the GHG Protocol and in national climate reporting, biogenic carbon dioxide emissions must be reported separately from emissions from fossil fuels.

In the table below, the companies' biogenic carbon dioxide emissions are shown parallel to their fossil fuel emissions in scope 1. Note that only carbon dioxide emissions are reported, which is why the fossil  $\mathrm{CO}_2$  emissions in the table are not the same as the greenhouse gas emissions expressed in  $\mathrm{CO}_2$ e (carbon dioxide equivalents) in each company's disclosure.

Allocation of direct CO <sub>2</sub> emissions between fossil (scope 1) and biogenic	biogenic CO <sub>2</sub> emissions in scope 1 (tonnes)	Fossil CO <sub>2</sub> emissions in scope 1 (tonnes)
Axfood	5 680	17 040
Coca-Cola European Partners Sverige AB	85	580
Folksam	Can not be calculated	487
HKScan	767	7 734
JM	464	3 282
Lantmännen	23 486	10 197
Löfbergs	704	1 551
McDonald's Sverige	0	360
Preem	0,7	1 681 065
Stena Recycling	2 294	17 003
Stockholm Exergi	1 873 285	705 203
Sveaskog	2 364	8 359

## APPENDIX 2: SCOPE 2 EMISSIONS ACCORDING TO DIFFERENT CALCULATION METHODS

Under the GHG Protocol, scope 2 emissions can be calculated using one of the following methods:

- Market-based method, which distinguishes between with Guarantee of
  Origin purchased electricity, heating or cooling and unspecified supplies. A
  specific emission factor is used for with Guarantee of Origin products, while
  an emission factor for a residual mix is used for unspecified supplies. The
  emission factor for the residual mix is affected by the production mix and the
  share of sold Guarantee of Origin certificates.
- Location-based method, which uses one emission factor for everything supplied through the power, heating or cooling grid. This calculation method does not take purchased Guarantee of Origin labelled electricity into account but the entire supply from the grid has the same emission factor, reflecting the actual emissions in the grid.

Under new guidelines in the GHG Protocol, the method chosen is to be declared and the emissions according to the method not chosen are to be reported separately. The Haga Initiative's greenhouse gas emissions disclosure uses the market-based method, which is also the method prescribed by Energimarknadsinspektionen (the Swedish Energy Markets Inspectorate). Scope 2 emissions according to each method are reported below.

	CO <sub>2</sub> emissions in scope 2 "Location-based method" (tonnes)	CO <sub>2</sub> emissions in scope 2 "Market-based method" (tonnes)
Axfood	16 234	474
Coca-Cola European Partners Sverige AB	1229	43
Folksam	875	450
HKScan	6 847	2 776
JM	2 491	1 369
Lantmännen	28 744	11 611
Löfbergs	372	45
McDonald's Sverige	6 219	699
Preem	33 698	279
Stena Recycling	4 784	1239
Stockholm Exergi	63 251	50 994
Sveaskog	485	4



## **Axfood**



## Folksam

### **HKSCAN**















Ш SVEASKOG

