Oleter Group

INDEX

INTRODUCTION

Climate change is the biggest challenge facing society. To avoid the most damaging consequences of climate change, global warming should be limited to 1.5°C compared to pre-industrial times. The nations of the world have, through The Paris Agreement, agreed to limit global warming to well below 2°C with an ambition to limit global warming to 1.5°C.

In order for society to succeed in limiting warming, it is required that all actors, public as well as private, do their part to reduce their carbon footprint. One part in enabling the reduction of a business's carbon footprint is to raise awareness of the sources of climate impact through its entire value chain; including all that is required for a business to be able to produce and sell their products or services.

Greenhouse gas (GHG) accounting is the basis for raising awareness of the sources of a business' climate impact through the value chain. It is the foundation in order to follow and be able to reduce the business's carbon footprint in line with the Paris Agreement to limit the global average temperature to 1.5°C, and it is the basis for identifying and prioritizing the measures which are required to enable this reduction of GHG emissions.

To ensure that a business reduces its climate impact in line with the Paris Agreement, they should set science-based targets. In 2021, Oleter Group was one of just under 500 companies globally that joined the Science Based Targets Net Zero standard, which is the most ambitious goal for a climate-neutral value chain.

Oleter Group has set the goal of reducing their emissions by 63% by 2030 compared to 2020 - one of the highest targets set globally. During the second quarter of 2021, Oleter Group submitted their science-based targets for validation and got them approved - a recognition of the ambitious level of climate action the business is committed to.

This report shows what has happened in 2022, and provides both the big picture as well as the details of the climate impact that Oleter Group had this reporting year.

Petter Palander,
The Climate Action Agency

ABOUT THE CALCULATIONS

Scope
The scope of this climate report is Oleter Group's total climate impact for the entire operation in 2022, including all indirect emissions upstream and downstream in the value chain. Climate impact has been divided into the categories Own transport, Energy use in facilities, Energy use from machinery, Purchases, Waste, Business travel and Commuting. The calculations and this report are based on the principles and guidelines of the GHG protocol.

Purpose
The purpose of this climate report is to present an overview of Oleter Group's total climate impact, and to provide a basis on which to build the continued climate actions.

This report should serve as guidance to make informed decisions about what the business should focus on in its continued climate action to lower its carbon footprint. The report should also be used as a basis for discussing the business' climate impact internally and externally.

With a clear overview of its climate impact, the organization can make informed decisions about, and implement changes that have a positive effect on the climate and resource use. Hence, the goal is to provide the conditions for a better business model with less sustainability risks.

About the calculations
The calculations in this report are based on the GHG Protocol's Corporate Standard and Scope 3 Standard. Operational control is used as the consolidation method and 2020 has been chosen as the base year for Oleter Group.

The GHG protocol is the most internationally recognized standard, and as such it is used by basically all countries, cities and companies that calculate their carbon emissions. In 2016, 92% of Fortune 500 companies that reported their carbon emissions to CDP used the GHG protocol to calculate their climate footprint.

The calculations are based on information that has been collected and supplied by Oleter Group and its partners. Certain data, sources and calculation methods have improved over time, leading to adjusted results for earlier years compared to previous reports.

The emission factors used in this report include, to the largest possible extent, all greenhouse gases and are reported in carbon dioxide equivalents (CO_2e), which is the name for all greenhouse gases combined and converted into a common unit.

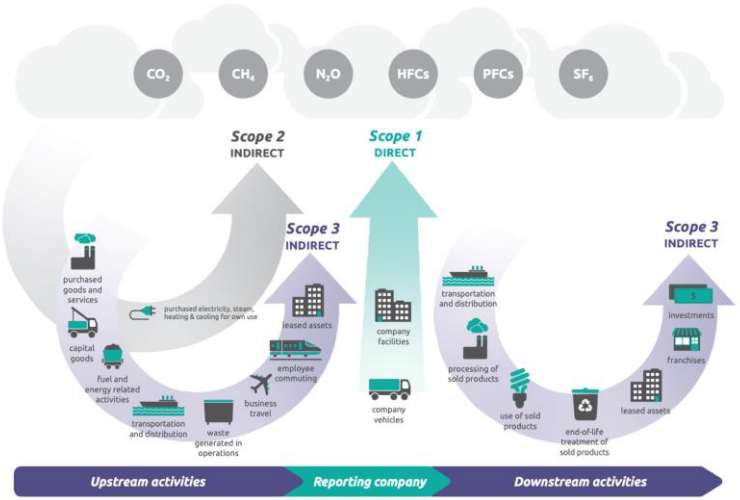
The decision has been made to move from a fixed base year in 2019 to a rolling base year due to the change the business is going through, with a strong expansion and change through acquisitions and divestitures.

GHG PROTOCOL - VALUE CHAIN STANDARD

The GHG protocol divides climate emissions into three scopes to avoid the double counting of emissions. **Scope 1** refers to the direct emissions arising in the business operations, **Scope 2** are indirect emissions associated with purchased energy and **Scope 3** contains all other emissions upstream and downstream in the value chain.

For Oleter Group, the distribution between the three scopes in 2022 is as follows (excluding biogenic emissions):

- **Scope 1 - 8.0%**. Direct emissions under operational control
- **Scope 2 - 1.8%**. Indirect emissions from purchased energy
- **Scope 3 - 90.2%**. Indirect emissions upstream (through suppliers) and downstream (after production/end customer)



BACKGROUND & CONTEXT

Some significant structural changes were made in Oleter Group in 2022. Three of the companies in the group were divested: MCM Relining, NHS, and S-Pipe. This was done in order to streamline the operations, to enable increased efficiency and foster high-level expertise within property damage restoration. The divested companies were engaged in underground infrastructure maintenance.

Oleter Group also grew through acquisitions in 2022 - the largest one was the incorporation of Trinava Skadeservice in Denmark, but a few minor acquisitions also happened in Sweden and Norway, where those companies were incorporated into Frøiland Bygg Skade and Ocab, respectively. Oleter Group also achieved organic growth in 2022.

No company operates in a vacuum, and the climate impact from Oleter Group has been impacted by several external factors. The fuel consumption has risen instead of fallen, which to some extent is due to the fact that it has been impossible to get hold of EVs as planned. Therefore, the carfleet is out of date and the upgrades to EVs has been delayed. In some cases, this has forced the use of new fossil and hybrid vehicles. Delivery of new EVs are expected for 2023, which is needed to update the carfleet.

Moreover, as many companies, business travel has increased as COVID restrictions were phased out.

Data availability has generally improved, especially for waste. There are however still data gaps, especially from the Danish and Norwegian operations.

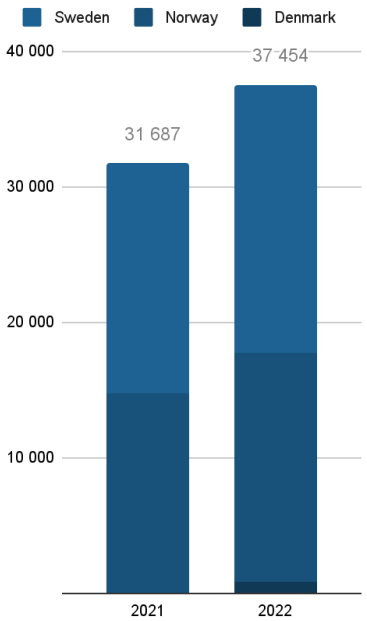
CLIMATE IMPACT

PER SCOPE / COUNTRY / EMPLOYEE / TURNOVER

CLIMATE IMPACT | Overview

Oleter Group's climate impact in 2022 amounts to 37 454 tonnes of carbon dioxide. This is an absolute increase of 18% compared to 2021 but must be seen in the light of the fact that Oleter Group acquired Trinava Skadeservice in 2022 and has also had strong organic growth. The acquisition is reflected in the report with the division of Sweden, Norway and Denmark in order to be able to follow the climate impact of the national operations separately.

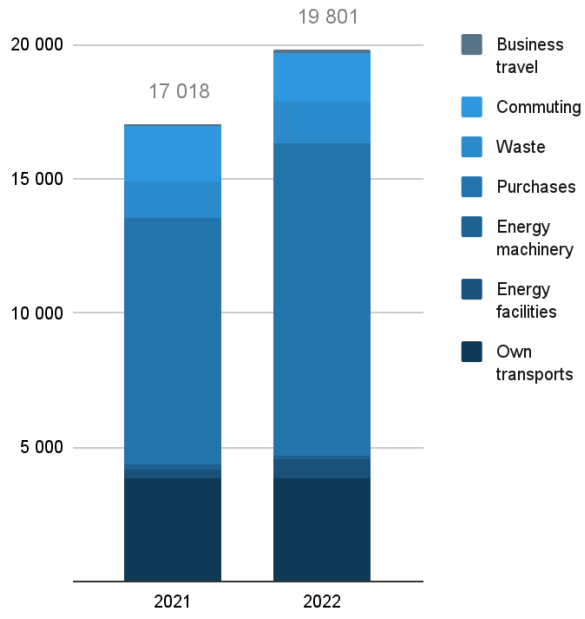
Fossil emissions (Scope 1, 2, 3)	**2021** (t CO_2e)	**2022** (t CO_2e)	**Change 2021-2022**
Denmark	n/a	848	
Norway	14 670	16 804	15%
Sweden	17 018	19 801	16%
Fossil emissions - Total	**31 687**	**37 454**	18%
Biogenic emissions	94	152	62%
Fossil + Biogenic	**31 781**	**37 605**	18%



CLIMATE IMPACT | Category | Sweden

Oleter Group's biggest climate impact in the Swedish operations is from the category Purchasing, which accounts for 59% of the total climate impact in the operations in Sweden. The second largest category of emissions comes from own transports and accounts for 19% of emissions, while the third largest category is commuting and accounts for 9% of total. The categories with the least climate impact are Energy Machinery and Business Travel, which together are estimated to account for 1.5% of the total climate impact.

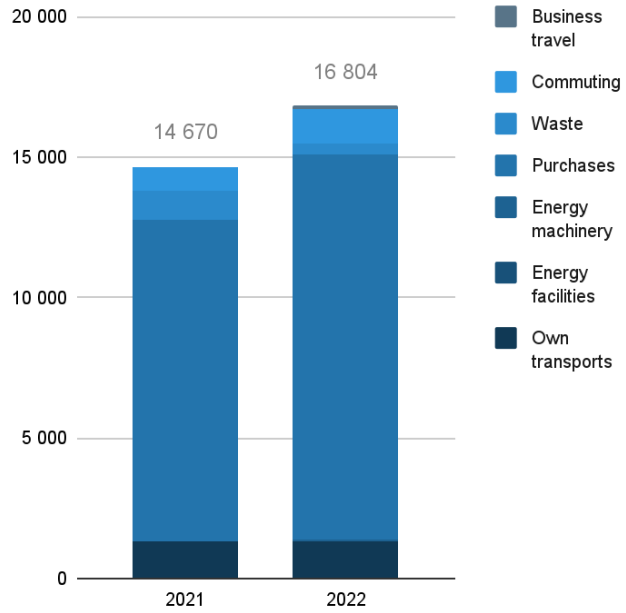
Fossil emissions Per category	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share** **(%)**	**Change** **2021-2022**
Own transports	3 823	3 867	19,5%	1%
Energy facilities	365	685	3,5%	88%
Energy machinery	161	159	0,8%	−1%
Purchases	9 178	11 610	58,6%	27%
Waste	1 398	1 562	7,9%	12%
Business travel	81	148	0,7%	81%
Commuting	2 013	1 771	8,9%	−12%
Total	**17 018**	**19 801**		**16%**



CLIMATE IMPACT | Category | Norway

Oleter Group's biggest climate impact in the Norwegian operations is from the Purchasing category, which is estimated to account for 81% of the total climate impact from operations in Norway. The second largest category of emissions comes from own transports, which is estimated to account for 8% of total emissions. From the Energy premises category, no emissions have been identified as all electricity is renewable and basically all heating comes from direct electricity use.

Fossil emissions Per category	**2021** ($t CO_2e$)	**2022** ($t CO_2e$)	**Share (%)**	**Change 2021-2022**
Own transports	1 314	1 311	7,8%	0%
Energy facilities	0	0	0%	0%
Energy machinery	30	68	0,4%	126%
Purchases	11 412	13 694	81,5%	20%
Waste	1 012	406	2,4%	−60%
Business travel	34	127	0,8%	269%
Commuting	867	1 197	7,1%	38%
Total	**14 670**	**16 804**		**15%**

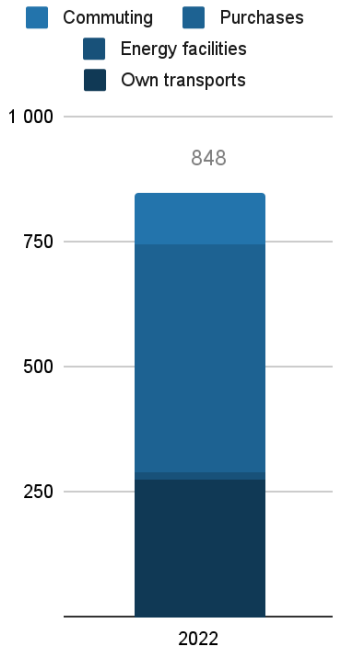


CLIMATE IMPACT | Category | Denmark

Oleter Group's largest climate impact in the Danish operations is from the Purchasing category, which is estimated to account for 54% of the total climate impact from operations in Denmark. The second largest category of emissions comes from own transport, which is estimated to account for 32.5% of total emissions.

It should be noted that there was very limited data available from Denmark, with no reported activity data on waste, business travel or energy from machinery use. Waste and business travel is to some extent covered in the purchasing category.

Fossil emissions Per category	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share (%)**
Own transports	n/a	276	32,5%
Energy facilities	n/a	14	1,6%
Energy machinery	n/a	no data	
Purchases	n/a	456	53,8%
Waste	n/a	no data	
Business travel	n/a	no data	
Commuting	n/a	103	12,1%
Total		848	

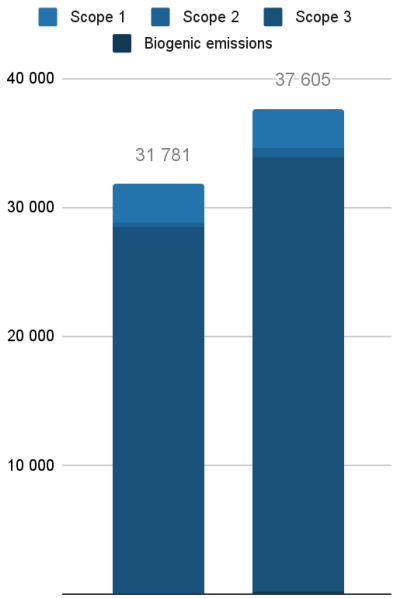


CLIMATE IMPACT | Scope

Of Oleter Group's fossil emissions in 2022, 8% arise from direct emissions (Scope 1) This is through mobile combustion, i.e. emissions from the vehicles you drive. 2% of the total emissions come from indirect emissions (Scope 2) through purchased energy. Other emissions arise through Oleter Group's value chain (Scope 3) and amount to 90%.

While still a small share of the total, the emissions in Scope 2 have almost doubled in size. This is due to a higher amount of reported non-renewable electricity use in the Swedish operations. Also the emissions from Scope 3 have increased by 19%, leading to a total emission increase of 18% from 2021 to 2022. This includes the acquisition of Trinava in Denmark, but as this only accounts for 2.3% of total emissions, organic growth has been the main driver of the emission increase.

Fossil emissions	**2021 (t CO_2e)**	**2022 (t CO_2e)**	**Share of total (%)**	**Change 2021-2022**
Scope 1	3 030	3 056	8%	1%
Scope 2	349	686	2%	97%
Scope 3	28 309	33 712	90%	19%
Fossil emissions - Total	**31 687**	**37 454**		18%
Biogenic emissions	94	152		62%
Fossil + Biogenic	**31 781**	**37 605**		18%



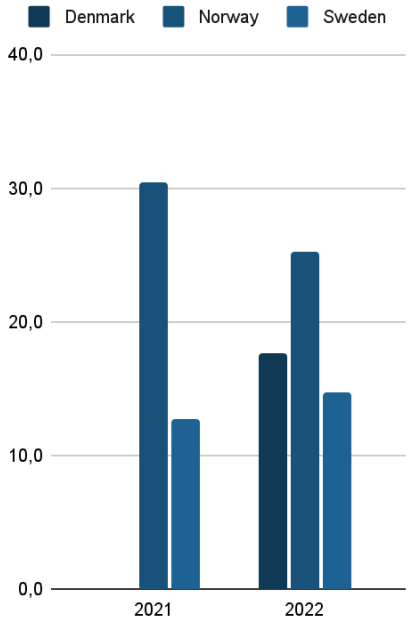
CLIMATE IMPACT | Employee

As the business grows, both organically and through acquisitions, the emissions are shown in relation to the number of employees to be able to determine whether the emissions increase in pace with the growth. It should be noted that for Denmark, only a few categories have been measured and therefore the total cannot be directly compared with the data from Sweden and Norway.

Emissions per employee were 18.1 tons of carbon dioxide in 2022 and have increased from 17.4 tons of carbon dioxide in 2021 - an increase of 4%. Despite increased total emissions, emissions per employee are not increasing at the same rate.

Number of employees	**2021**	**2022**	**Change 2021-2022**
Denmark	n/a	48	
Norway	483	667	38%
Sweden	1 343	1 350	1%
Total	**1 826**	**2 065**	**13%**

Emissions / employee (t CO_2e)	**2021**	**2022**	**Change 2021-2022**
Denmark	n/a	17,7	
Norway	30,4	25,2	−17%
Sweden	12,7	14,7	16%
Total	**17,4**	**18,1**	**5%**



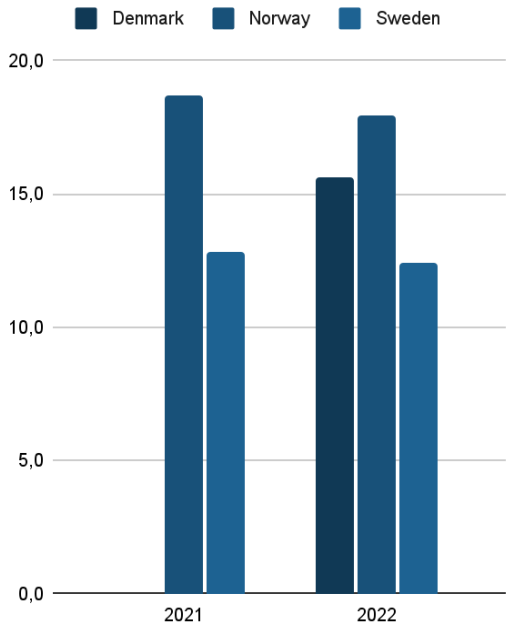
CLIMATE IMPACT | Turnover

In the same way as emissions per employee, emissions per turnover can be used to follow the development and what is called 'decoupling' of climate impact, i.e. to break the connection between economic growth and increased climate impact.

Oleter Group's emissions per turnover were 14.4 tons of carbon dioxide / MSEK in 2022 and 15 tons of carbon dioxide / MSEK in 2021 - i.e. a decrease of 4%.

Turnover (MSEK)	**2021**	**2022**	**Change 2021-2022**
Denmark	n/a	54	
Norway	784	935	19%
Sweden	1 325	1 595	20%
Total	2 109	2 585	23%

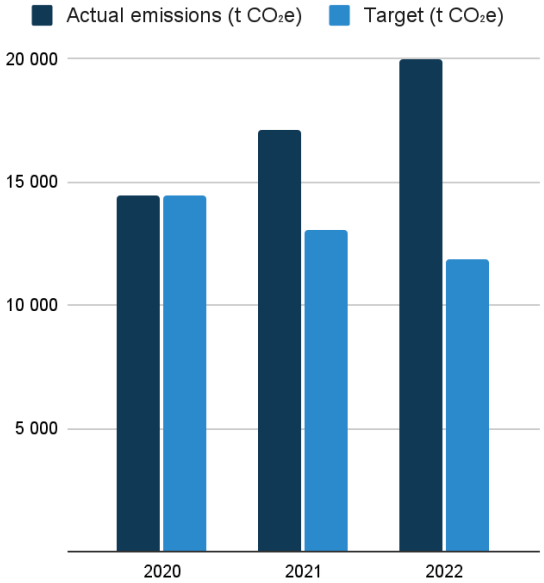
Emissions / turnover (t CO_2e / MSEK)	**2021**	**2022**	**Change 2021-2022**
Denmark	n/a	15,6	
Norway	18,7	18,0	−4%
Sweden	12,8	12,4	−3%
Total	15,0	14,5	−4%



CLIMATE IMPACT | SBT progress (Sweden)

“Oleter Group commits to reduce absolute scope 1, 2, and 3 GHG emissions 63% by 2030 from a 2020 base year*. Oleter Group commits to increase annual sourcing of renewable electricity from 78% in 2020 to 100% by 2023. Oleter Group also commits that 50% of its suppliers by spend will have SBTs by 2025. *The target boundary includes biogenic emissions and removals from bioenergy feedstocks.”

SBT Progress Sweden	2020	2021	2022
Actual emissions (t CO_2e)	14 452	17 111	19 953
Target (t CO_2e)	14 452	13 084	11 846
Difference		30,78%	68,44%
Renewable electricity	81,48%	92,31%	56,18%
Suppliers by spend who have SBT	n/a	n/a	4,44%

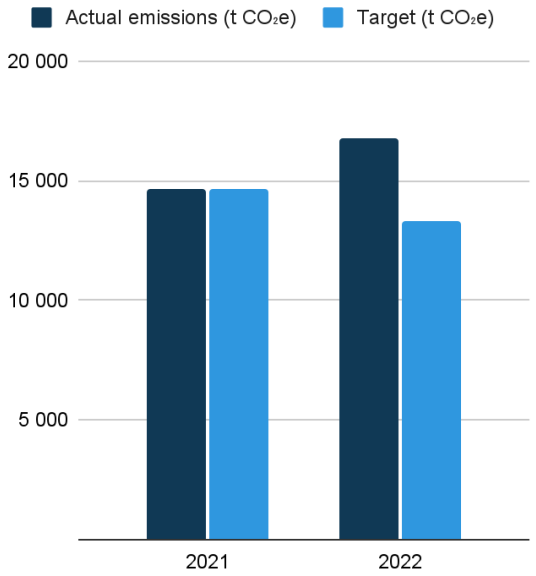


CLIMATE IMPACT | SBT progress (Norway)

"Oleter Group commits to reduce absolute scope 1, 2, and 3 GHG emissions 63% by 2030 from a 2020 base year*. Oleter Group commits to increase annual sourcing of renewable electricity from 78% in 2020 to 100% by 2023. Oleter Group also commits that 50% of its suppliers by spend will have SBTs by 2025. *The target boundary includes biogenic emissions and removals from bioenergy feedstocks."

For Norway, data from 2020 is not available, which is why we choose to look at the annual reduction in line with the set SBT target.

SBT Progress Norway	2021	2022
Actual emissions (t CO_2e)	14 670	16 804
Target (t CO_2e)	14 670	13 281
Difference		26,53%
Renewable electricity	100%	100%
Suppliers by spend who have SBT	n/a	n/a



OWN TRANSPORTS

PER COUNTRY / TTW / WTT / LCA / TURNOVER

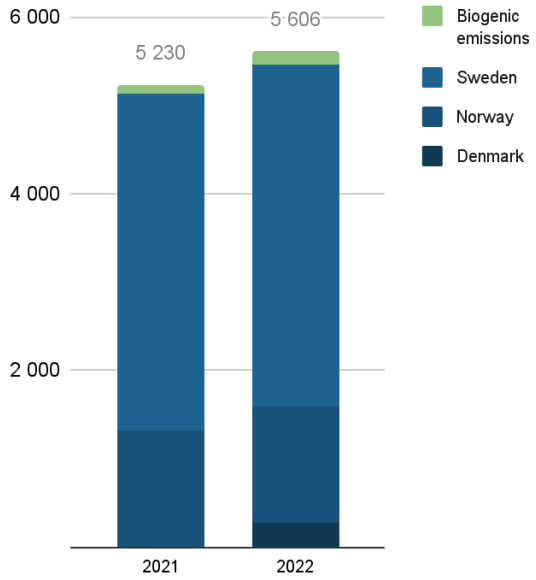
OWN TRANSPORTS | Overview

The climate impact from own transports is estimated to amount to 5 302 tonnes of CO_2e in 2022 and accounts for 14% of the total emissions.

In the category *Own transports*, the emissions are divided into Direct emissions through fuel combustion (TTW), Indirect emissions through production and transport of the fuel (WTT) to get the overall picture of the fuel's total climate impact (WTW), and the production and end-of-life of vehicles (LCA).

It should be noted that an adjustment was made for this reporting period, to exclude the fuel consumption for when the vehicles are used outside of work. This implies that the reported fuel consumption is now lower than what has previously been displayed.

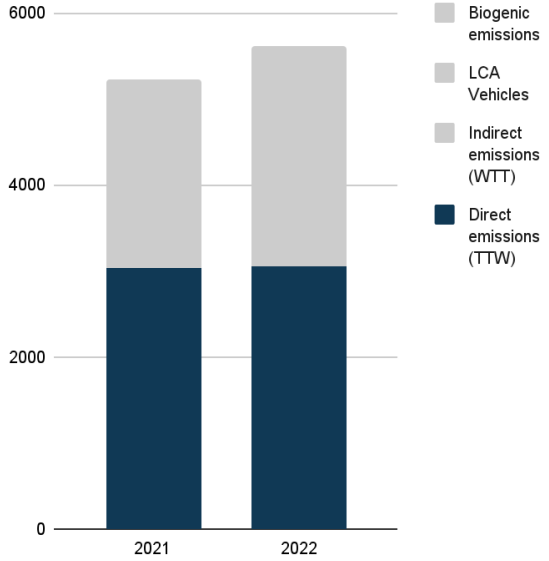
Own transports	2021 (t CO_2e)	2022 (t CO_2e)	Share 2022 (%)	Change 2021-2022
Denmark	n/a	276	0,7%	
Norway	1 314	1 311	3,5%	0%
Sweden	3 823	3 867	10,3%	1%
Total	**5 137**	**5 454**	14,6%	6%



OWN TRANSPORTS | Direct Emissions

Direct emissions through fuel combustion (TTW) account for the majority of the climate impact in the *Own transports* category. 2 962 tons of carbon dioxide, which corresponds to 56% of the total emissions in *Own transports,* arise from the combustion itself. This is a reduction with 9% compared to last year.

Direct emissions (TTW)	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	145	0,4%	
Norway	886	853	2,3%	−4%
Sweden	2 144	2 058	5,5%	−4,0%
Total	**3 030**	**3 056**	**8,2%**	**1%**



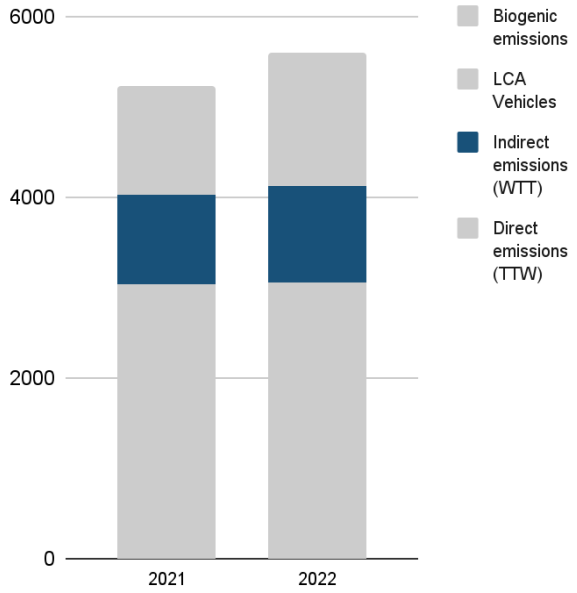
OWN TRANSPORTS | Indirect Emissions

Indirect emissions from the production and transport of fuel (WTT) amount to 990 tonnes of carbon dioxide in 2022, which is 18.7% of the emissions in the *Own transports* category.

Of the total climate impact from a liter of diesel, the indirect emissions account for approx. 17% (0.62 kg CO_2e/litre), while the corresponding proportion for a liter of petrol is approx. 15% (0.52 kg CO_2e/litre). For HVO, the indirect emissions account for 100% of the fuel's fossil emissions and are 0.76 kg CO_2e/litre.

For HVO, biogenic emissions are added which are calculated separately and are included in the Science Based Targets that Oleter Group have committed to.

Indirect emissions (TTW)	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	66	0,2%	
Norway	176	170	0,5%	−4%
Sweden	829	830	2,2%	0%
Total	**1 005**	**1 066**	**2,8%**	**6%**

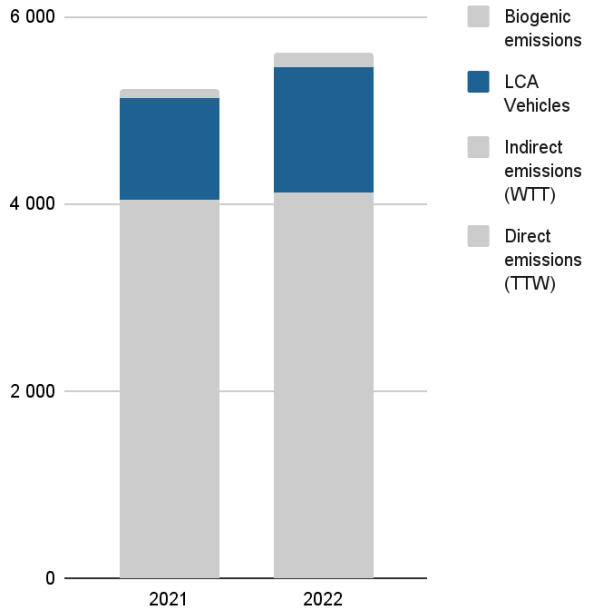


OWN TRANSPORTS | Production & End-Of-Life

The category *Own transports* also includes emissions arising from production and end-of-life (LCA) of the vehicles used in the business. This part accounts for 25.5% of he emissions in own transport.

The emissions are divided and attributed per kilometer driven. For a passenger car with a combustion engine, the emissions are estimated to be 0.35 kg CO_2e / km, while for a corresponding electric car the emission is 0.40 kg CO_2e / km - thus slightly higher for an electric car than a passenger car with a combustion engine, but if including the emissions from fuel, the total climate impact is 84% lower for an electric car per kilometer.

LCA Vehicles	2021 (t CO_2e)	2022 (t CO_2e)	Share 2022 (%)	Change 2021-2022
Denmark	n/a	64	0,2%	
Norway	252	289	0,8%	15%
Sweden	850	979	2,6%	15%
Total	**1 102**	**1 332**	**3,6%**	**21%**

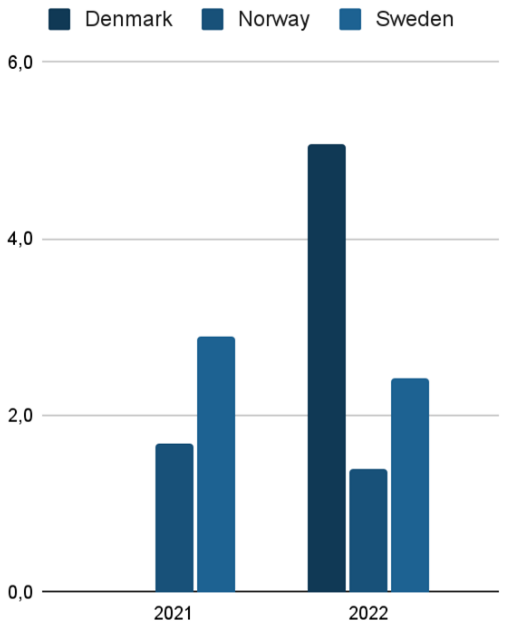


OWN TRANSPORTS | Turnover

Emissions for own transport have decreased by 16% in relation to turnover from 2021 to 2022. For the Swedish operations, emissions decrease 20%, from 2.9 tons of carbon dioxide / MSEK to 2.3 tons CO_2e / MSEK.

In Norway, the emissions in own transport have decreased from 1.7 to 1.4 tons of carbon dioxide / MSEK from 2021 to 2022, which is due to the greater use of EVs. In December 2022 the share of electric vehicles in Norway amounted to 22% of the total vehicle fleet.

Ton CO_2e per MSEK	2021	2022	Change 2021-2022
Denmark	n/a	5,1	
Norway	1,7	1,4	−16%
Sweden	2,9	2,4	−16%
Total	**2,4**	**2,1**	**−13%**



FUEL

COUNTRY / TYPE

FUEL | Overview

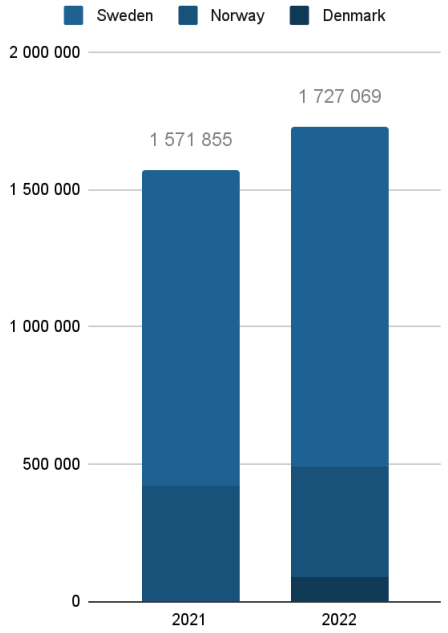
During 2022, Oleter Group purchased 1.7 million liters of fuel, of which approx. 1.2 million liters were purchased by the Swedish companies. The volume of fuel has increased by 7% from 2021 - 2022 in Sweden. In Norway the total volume of fuel consumed decreased, by 4% from 2021 to 2022. For Denmark, no historic data has been made available for comparison.

Initiatives of various kinds have begun in 2021 and will continue moving forward; to replace fossil fuels with electricity to the greatest extent possible, as quickly as possible.

These results vary from what has previously been reported, since several companies were sold in 2022 and their operations are no longer considered in the calculations. This is in accordance with the GHG Protocol standard.

It should be noted that an adjustment was made for this reporting period, to exclude the fuel consumption for when the vehicles are used outside of work. This implies that the reported fuel consumption is now lower than what has previously been displayed.

Volume fuel	**2021** (liter)	**2022** (liter)	**Change 2021-2022**
Denmark	n/a	87 997	
Norway	420 145	404 424	−4%
Sweden	1 151 710	1 234 647	7%
Total	**1 571 855**	**1 727 069**	**10%**

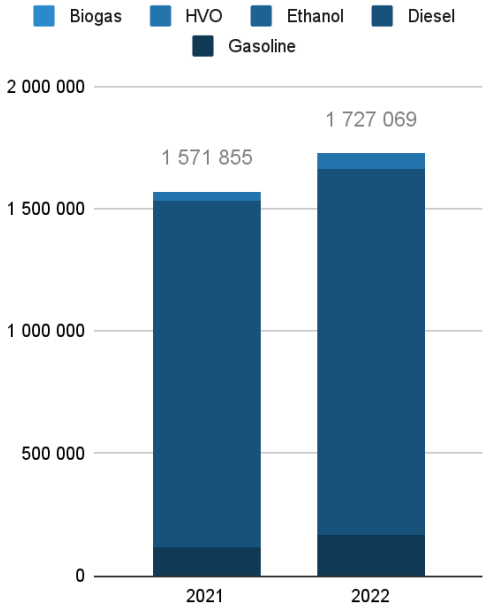


FUEL | Volume / Type

Of the total 1.7 million liters of fuel purchased in 2022, diesel accounted for 75% of the volume and 79% of the total emissions from fuel.

Within Oleter Group Sweden, the share of HVO has increased to 3.5%. For the first time, purchase of biogas was also reported.

Own transports	**2021** (liter)	**2022** (liter)	**Share (%)**
Gasoline	118 350	166 711	9,7%
Diesel	1 414 593	1 499 150	86,8%
Ethanol	1 428	0	0,0%
HVO	37 484	60 797	3,5%
Biogas	n/a	412	0,02%
Total	**1 571 855**	**1 727 069**	



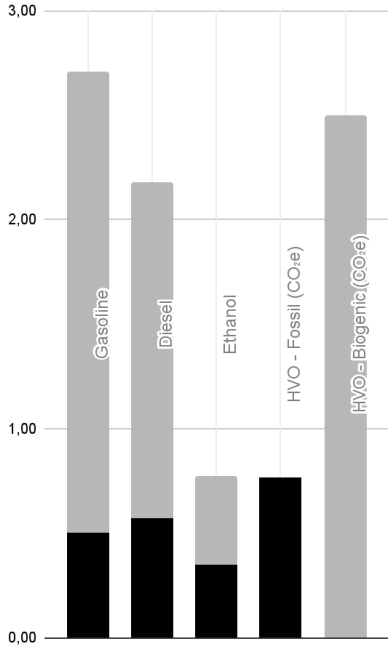
FUEL | Emissions / Type

The fossil emissions from fuel change from year to year, depending on various factors, but above all on how large a proportion of renewables are mixed in. From January 1, 2022, the reduction levels are 7.8 percent for gasoline and 30.5 percent for diesel fuel. The Riksdag has decided to pause the increase in the reduction obligation for gasoline and diesel, which means that the same reduction levels also apply in 2023.

From renewable fuels, such as HVO, in addition to the fossil emissions through production and transport of the fuel, direct biogenic emissions also arise through the combustion of the fuel. These emissions must be included in science-based targets as their climate neutrality is disputed and the time perspective for the carbon cycle for these raw materials is longer than the time we have to reduce emissions.

The graph shows the share of the emissions that arise from the production of the fuel (Well-To-Tank, in black), and the combustion of the fuel (Tank-To-Wheel, in grey).

Fuel type	**2021** (kg CO_2e/liter)	**2022** (kg CO_2e/liter)
Gasoline	2,83	2,71
Diesel	2,52	2,18
Ethanol	0,77	0,77
HVO - Fossil (CO_2e)	0,67	0,76
HVO - Biogenic (CO_2e)	2,50	2,50



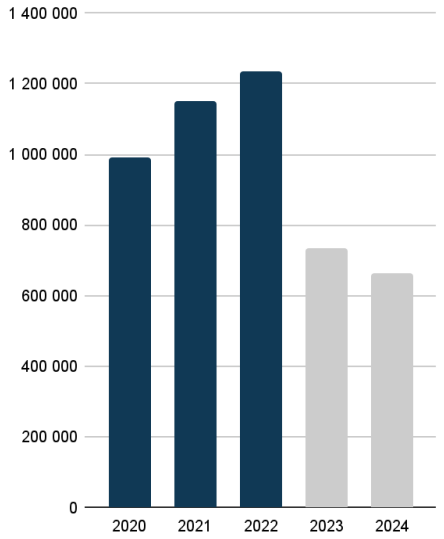
FUEL | Sweden | Target 2024

Target 2024

To be in line with the Science Based Target, annual reduction of 9.5% and a 32.8% reduction from 2020 to 2024 is required

Ethanol, HVO and biogas is also included as according to the SBTi, biogenic emissions should be accounted for.

Fuel type	2020 (liter)	2022 (liter)	Share 2022 (%)	Change 2020 - 2022
Gasoline	87 061	156 245	13%	79%
Diesel	898 131	1 017 194	82%	13%
Ethanol	1 783	0	0%	−100%
HVO	3 038	60 797	5%	1901%
Biogas	n/a	412	0%	
Total	**990 013**	**1 234 647**		**25%**

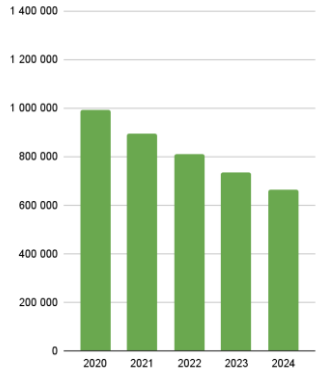


FUEL | Sweden | Target vs Trajectory

Target 2024

To be in line with SBT, annual reduction of purchased fuel by 9.5% annually, and 32.8% from 2020 to 2024

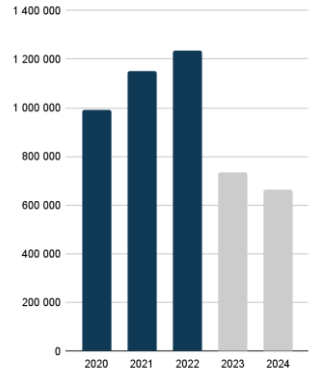
Ethanol, HVO and biogas is also included as according to the SBTi, biogenic emissions should be accounted for.



Current trajectory

The amount of purchased fuel in the Swedish operations has increased by 25% from 2020 to 2022.

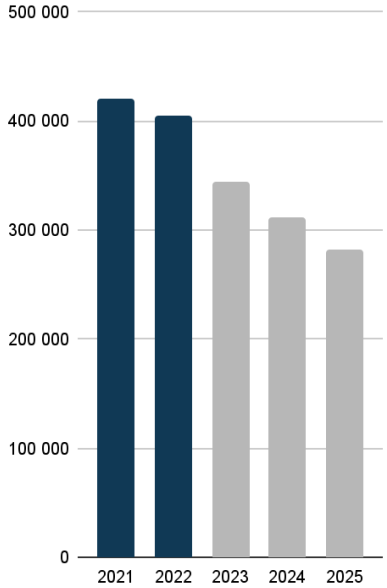
In absolute terms, the fuel budget for this five year period was 5 065 084 liters, and during 2020-2022, 4 178 482 liters were consumed. This leaves a remaining budget of 886 602 for 2023 and 2024.



FUEL | Norway | Annual target

To be in line with the Science Based Target, annual reduction of 9.5% and a 32.8% reduction from 2021 to 2025 is required

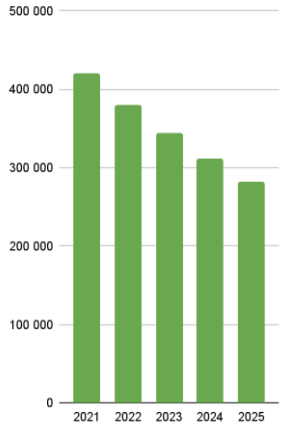
Fuel type	2021 (liter)	2022 (liter)	Share 2022 (%)	Change 2021-2022
Gasoline	3 341	4 222	1%	26%
Diesel	416 805	400 202	99%	−4%
Total	**420 145**	**404 424**		−4%



FUEL | Norway | Target vs Trajectory

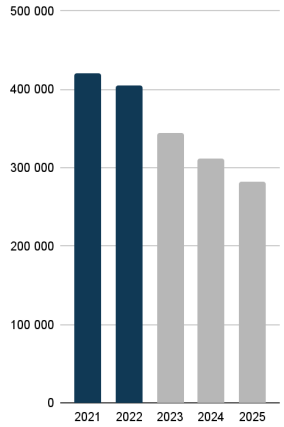
Target 2024

To be in line with SBT, annual reduction of purchased fuel by 9.5% annually, and 32.8% from 2021 to 2025



Current trajectory

The amount of purchased fuel in the Norwegian operations has increased by 4% from 2021 to 2022.



FACILITIES

COUNTRY / ENERGY / RENEWABLE

FACILITIES | Overview

The climate impact from facilities amounts to 699 tons of carbon dioxide in 2022, an increase of 92% compared to 2021. The main reason for this is that some larger facilities in Sweden used non-renewable energy for 6 months in 2022. Another explanation is that reporting has been more accurate in 2022 compared to previous years.

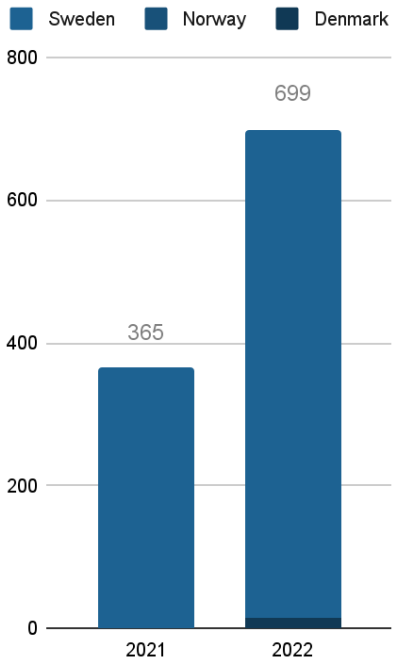
The result also slightly differs from what was reported last year, because the emission factors for district heating and electricity are updated once the latest values are released.

In 2022, Oleter Group conducted an energy audit in 4 locations to ensure that it is as energy efficient as it can be and fulfills the Act (2014:266) on energy auditing in large companies.

Emissions per square meter have for the same reasons increased from 6.2 kg of carbon dioxide in 2021 to 9.5 kg of carbon dioxide in 2022.

In 2021, the share of renewable energy was 89% of total electricity consumption, while in 2022 it was 66%. Oleter Group's goal is to purchase 100% renewable electricity by 2023.

Facilities	**2021** ($t CO_2e$)	**2022** ($t CO_2e$)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	14	0,04%	
Norway	0	0	0%	
Sweden	365	685	1,8%	88%
Total	**365**	**699**	**1,9%**	**92%**



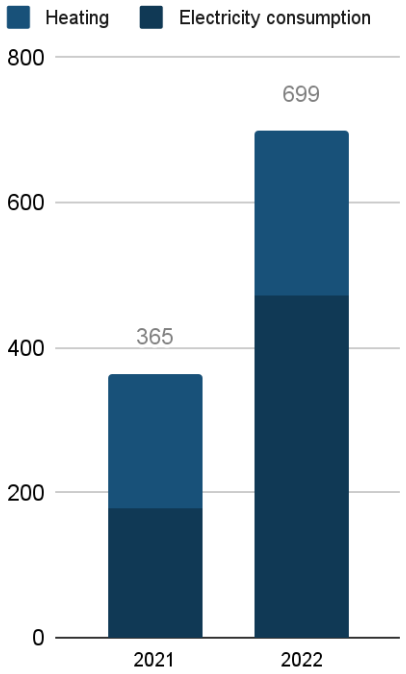
FACILITIES | Emissions / Type

The climate impact from facilities amounts to 699 tons of carbon dioxide in 2022, an increase of 92% compared to 2021. The emissions from heating have increased by 21%, while the emissions from Electricity increased by 165%. The main reason for this is that some larger facilities in Sweden used non-renewable energy for 6 months in 2022. Another explanation is that reporting has been more accurate in 2022 compared to previous years.

In total, energy consumption in facilities amount to 2% of the total emissions from Oleter Group.

In 2022, Oleter Group conducted an energy audit in 4 locations to ensure that it is as energy efficient as it can be and fulfills the Act (2014:266) on energy auditing in large companies.

In 2021, the share of renewable energy was 89% of total electricity consumption, while in 2022 it was 66%. Oleter Group's goal is to purchase 100% renewable electricity by 2023.

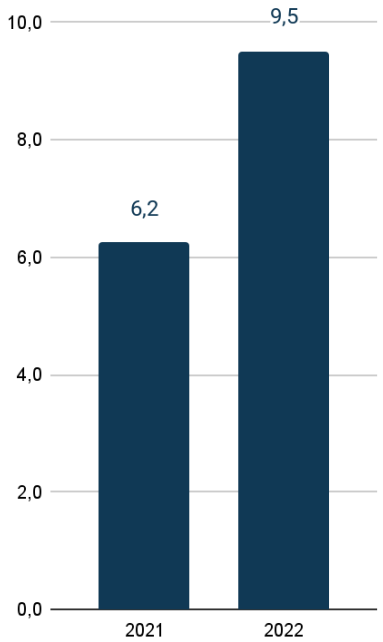


Per type	**2021** ($t CO_2e$)	**2022** ($t CO_2e$)	**Share 2022 (%)**	**Change 2021-2022**
Electricity consumption	178	473	1,3%	165%
Heating	187	226	0,6%	21%
Total	**365**	**699**	**1,9%**	**92%**

FACILITIES | Emissions / Surface Area

Two of the companies in Oleter Group, Ocab AB and Frøiland Bygg Skade, expanded their surface area in 2022. Also, Trinava Skadeservice was incorporated which added 5 589 m2 - almost 8%.

Emissions per square meter have increased from 6.2 kg of carbon dioxide in 2021 to 9.5 kg of carbon dioxide in 2022.



Per type	**2021** (t CO_2e)	**2022** (t CO_2e)	**Change 2021-2022**
Surface area (m2)	58 364	72 055	23%
Emissions (kg CO_2e)	364 772	685 206	88%
Emissions / surface area (kg CO_2e / m2)	**6,2**	**9,5**	**52%**

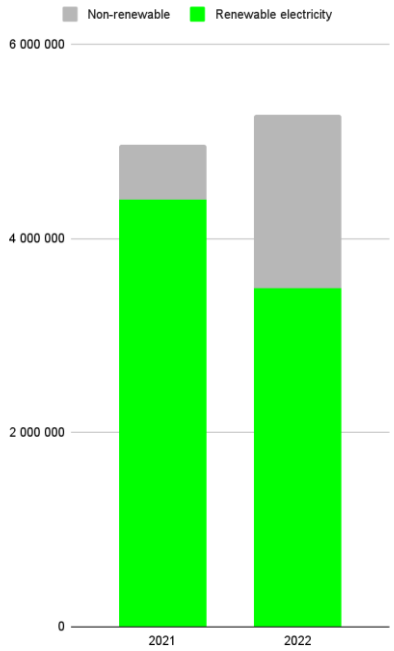
FACILITIES | Renewable share

The climate impact from facilities amounts to 699 tons of carbon dioxide in 2022, an increase of 92% compared to 2021. The emissions from heating have increased by 21%, while the emissions from Electricity increased by 165%. The main reason for this is that some larger facilities in Sweden used non-renewable energy for 6 months in 2022. Another explanation is that reporting has been more accurate in 2022 compared to previous years.

In total, energy consumption in facilities amount to 2% of the total emissions from Oleter Group.

In 2022, Oleter Group conducted an energy audit in 4 locations to ensure that it is as energy efficient as it can be and fulfills the Act (2014:266) on energy auditing in large companies.

In 2021, the share of renewable energy was 89% of total electricity consumption, while in 2022 it was 66%. Oleter Group's goal is to purchase 100% renewable electricity by 2023.



Electricity consumption	**2021** (kWh)	**2022** (kWh)	**Change 2021-2022**
Renewable electricity consumption (kWh)	4 406 391	3 482 726	−21%
Total electricity consumption (kWh)	4 960 605	5 276 305	6%
Share of renewable (%)	**88,8%**	**66,0%**	**−26%**

MACHINERY

COUNTRY

MACHINERY

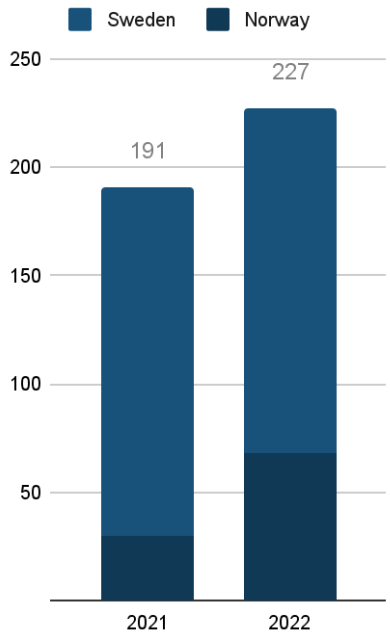
The climate impact from machinery amounts to 227 tonnes of carbon dioxide in 2022, based on a total electricity consumption of 17,774 MWh.

In Sweden, electricity consumption slightly decreased from 13,903 MWh in 2021 to 13,750 MWh in 2022. If energy consumption is considered in relation to turnover, it decreased from 10.5 MWh / MSEK year 2021 to 8.6 MWh / MSEK in 2022.

The result differs from what was reported last year, because the emission factors for location based electricity in Sweden have been updated and another data source is used.

Oleter Group aims to have 100% energy-efficient machines and dehumidifiers by 2024 to meet the Sustainable Development Goals' sub-target 7.3: *By 2030, double the global rate of improvement in energy efficiency.*

Machinery	**2021** ($t CO_2e$)	**2022** ($t CO_2e$)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	no data		
Norway	30	68	0,2%	126%
Sweden	161	159	0,4%	−1%
Total	**191**	**227**	**0,6%**	**19%**



PURCHASES

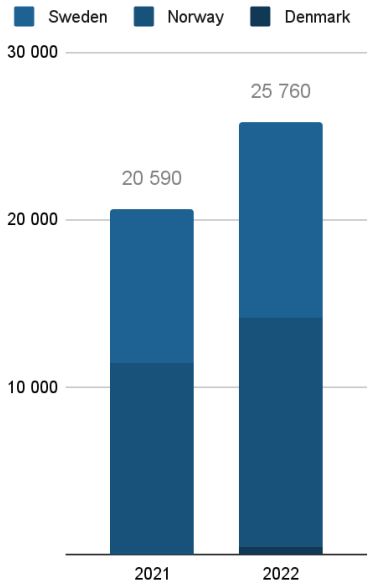
COUNTRY / TURNOVER

PURCHASES

In order to get an overview of an operation's total climate impact, emissions from other purchases of products, services and capital goods - which are not included in other categories - are calculated. For Oleter Group, emissions from purchases in 2022 amount to 25 760 tons of carbon dioxide, corresponding to 69% of the total climate impact in 2022.

It should be noted that this category is primarily based on a calculation method with several uncertainty parameters. The calculation method is based on emissions in kg CO_2e per SEK and SNI 2007. This model is used in the absence of better available data directly from suppliers, are rough templates and averages across industries and should therefore be used as such. The goal is to replace this method over time with an increased share of primary data directly from the suppliers.

Purchases	2021 (t CO_2e)	2022 (t CO_2e)	Share 2022 (%)	Change 2021-2022
Denmark		456	1,2%	
Norway	11 412	13 694	36,6%	20,0%
Sweden	9 178	11 610	31,0%	26,5%
Total	20 590	25 760	68,8%	25,1%

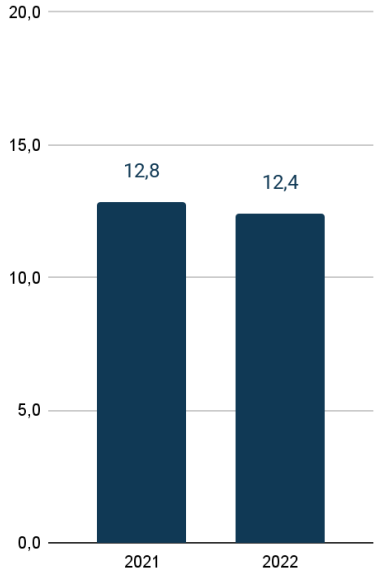


PURCHASES | Sweden

Emissions from purchases of products, services and capital goods in Sweden - not already reported in other categories - were 12.4 tonnes of carbon dioxide per MSEK in 2022 - a decrease of 3% compared to 2021.

From 2019 and 2020, the model for the calculations for purchasing products, services and capital goods within Oleter Group Sweden was changed. In 2019, SNI codes and emissions per SEK linked to it were applied to each individual supplier, while from 2020 onwards, SNI codes are instead applied at the account level to better represent the purchases. For this reason, 2019, 2020 and 2021 is not fully comparable.

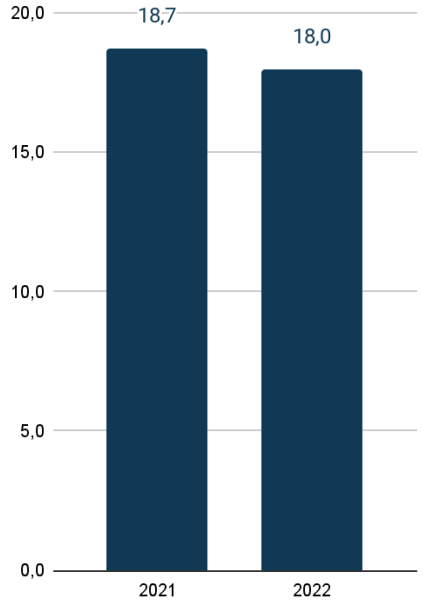
Purchases Sweden	**2021**	**2022**	**Change 2021-2022**
Spend (MSEK)	1 325	1 595	20,4%
Emissions (t CO_2e)	17 018	19 801	16,4%
Emissions (t CO_2e / MSEK)	12,8	12,4	−3,4%



PURCHASES | Norway

Within Oleter Group Norway, emissions from purchases were 18 tonnes of carbon dioxide per MSEK, a slight decrease from 18.7 tons of carbon dioxide per MSEK in 2021.

The calculations of purchases are made in a similar way in Norway as in Sweden, but accounts are not used identically, which makes a comparison between the countries in this category not entirely suitable.

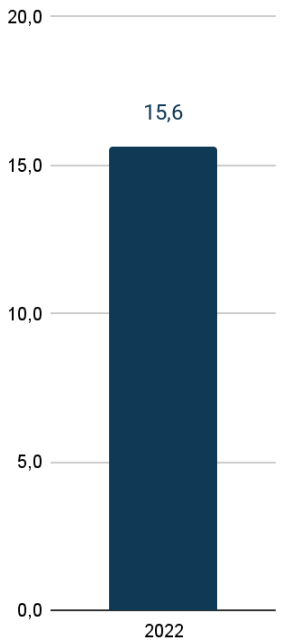


Purchases Norway	**2021 (t CO_2e)**	**2022 (t CO_2e)**	**Change 2021-2022**
Spend (MSEK)	784	935	19,3%
Emissions (t CO_2e)	14 670	16 804	14,6%
Emissions (t CO_2e / MSEK)	18,7	18,0	−4,0%

PURCHASES | Denmark

Emissions from purchases of products, services and capital goods in 2022 were 15.6 tonnes of carbon dioxide per MSEK in Denmark. As this is the first year that the emissions from Denmark are calculated, no data comparison is available.

Purchases Denmark	**2022 (t CO_2e)**
Spend (MSEK)	54
Emissions (t CO_2e)	848
Emissions (t CO_2e / MSEK)	15,6



WASTE

COUNTRY / TURNOVER / FRACTION

WASTE | Overview

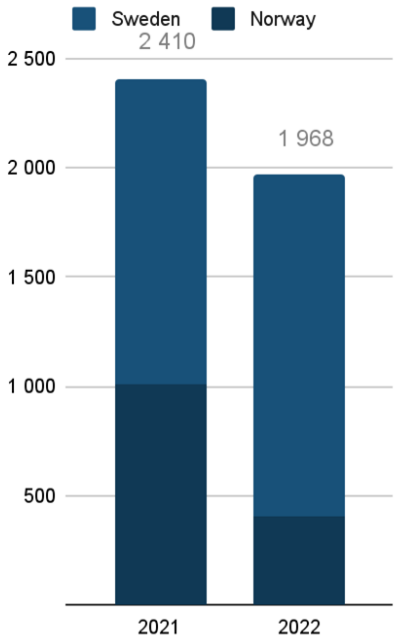
Waste generated in Oleter Group's operations in 2022 is estimated to cause emissions of a total of 1 968 tons of carbon dioxide, which corresponds to 5.3% of Oleter Group's total carbon footprint in 2022. In Oleter Group Sweden, a total of 8 493 tons of waste was generated, of which 1 750 tons was mixed waste. In 2022, mixed waste corresponds to 21% of the total weight of waste, and in 2021 it corresponded to 42%.

For this year, significant changes were made in the way waste data is managed. For one, raw data was gathered from the waste collectors and centrally compiled, whereas earlier years the companies themselves have reported data. Therefore the data is more granular for 2022. Also, the emission factor for mixed waste was updated to a lower one that was deemed more representative. Hence, the emissions differ significantly from what has previously been reported.

The emissions from Norway was last year calculated with a generic factor unanimously applied by Miljøfyrtårn. This year, category-specific emission factors were used to a larger extent, which gives a lower result.

Waste emissions per turnover decreased from 1.1 tons of carbon dioxide/MSEK in 2021 to 0.8 tons of carbon dioxide/MSEK in 2022. This excludes revenue from Denmark.

Waste	**2021** ($t CO_2e$)	**2022** ($t CO_2e$)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	no data		
Norway	1 012	406	1,1%	−60%
Sweden	1 398	1 562	4,2%	12%
Total	**2 410**	**1 968**	**5,3%**	**−18%**

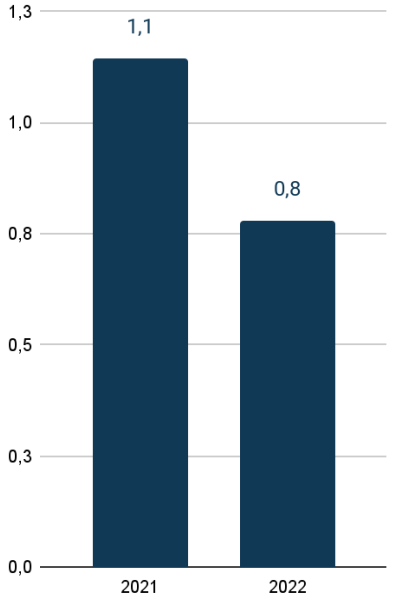


WASTE | Emissions / Turnover

Waste generated in Oleter Group's operations in 2022 is estimated to cause emissions of a total of 1 968 tons of carbon dioxide, which corresponds to 5.3% of Oleter Group's total carbon footprint in 2022.

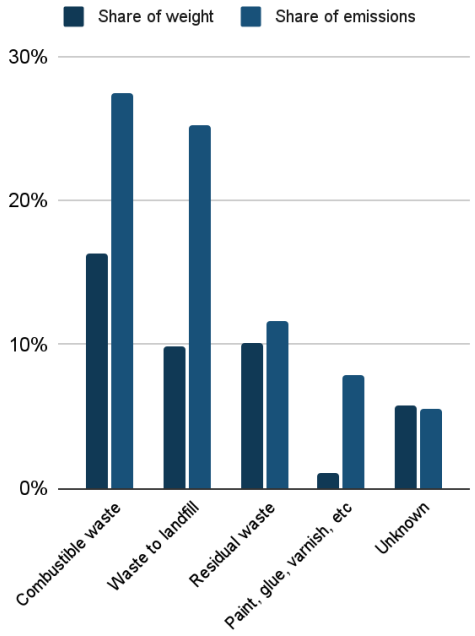
Waste emissions per turnover decreased from 1.1 tons of carbon dioxide/MSEK in 2021 to 0.8 tons of carbon dioxide/MSEK in 2022. This excludes revenue from Denmark, as there was no data available on waste from Denmark.

Waste	2021 (t CO_2e)	2022 (t CO_2e)	Change 2021-2022
Emissions (t CO_2e)	2 410	1 968	−18%
Emissions (t CO_2e / MSEK)	1,1	0,8	−32%



WASTE | Sweden | Emissions / Fraction

Category	Weight (ton)	Emission factor	Share of weight	Share of emissions
Combustible waste	1 877	0,29	16%	27%
Waste to landfill	1 132	0,39	10%	25%
Residual waste	1 163	0,16	10%	12%
Paint, glue, varnish, etc	121	1,45	1%	8%
Unknown	659	0,03	6%	5%
Mixed waste	2 003	0,14	17,4%	5,2%
Hazardous waste	295	0,26	2,6%	4,0%
Alternative Raw Materials	161	0,34	1,4%	2,8%
Concrete	472	0,10	4,1%	2,4%
Soil, sand etc	264	0,09	2,3%	1,7%



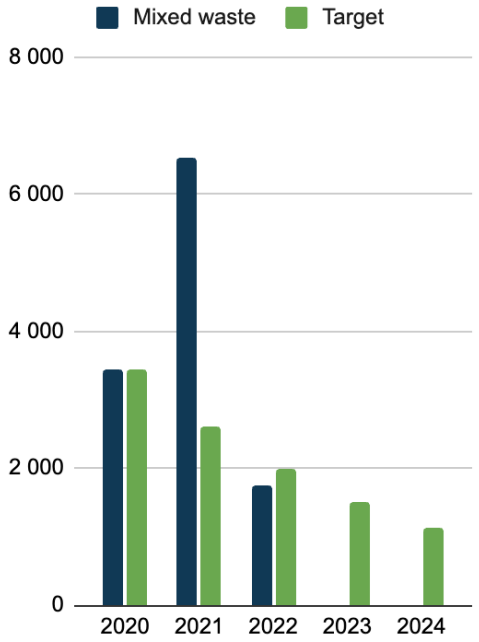
WASTE | Sweden | Target 2024

Target 2024

Reduce emissions from mixed waste by at least 67.19% from 2020 level, reducing the weight from 3 451 tons to 2 319 tons

The target was achieved in 2022, but it is important to ensure the robustness of the data and the consistency over time

Waste (type)	2020 (t)	2021 (t)	2022 (t)	Change 2020 - 2022
Mixed waste	3 451	6 524	1 750	−49%
Total	**7 660**	**15 388**	**8 493**	**11%**



BUSINESS TRAVEL

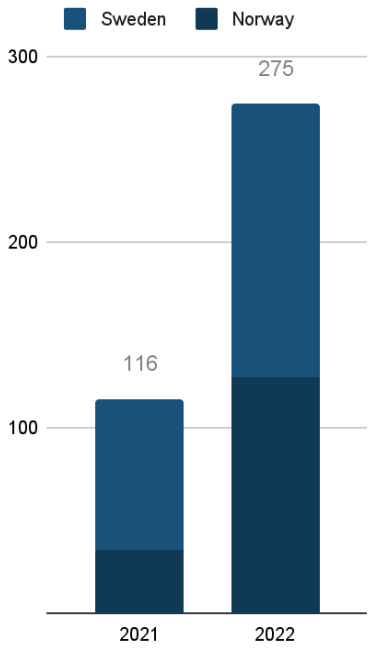
COUNTRY / CATEGORY / SPEND

BUSINESS TRAVEL | Overview

Emissions from business trips within the Oleter Group in 2022 are estimated to amount to 275 tons of carbon dioxide. This excludes the Danish operations as no data was made available, and for Norway only data on flights was provided for 2021 and 2022. The data from Oleter in Sweden includes activity data for flights, and spend data for other categories. The quality of data from Norway improved notably for 2022, giving a more robust result.

The travelling, and as a consequence, the associated emissions, has increased significantly in 2022 compared with 2021, as for many companies. Travelling decreased during the pandemic, and is now picking up again.

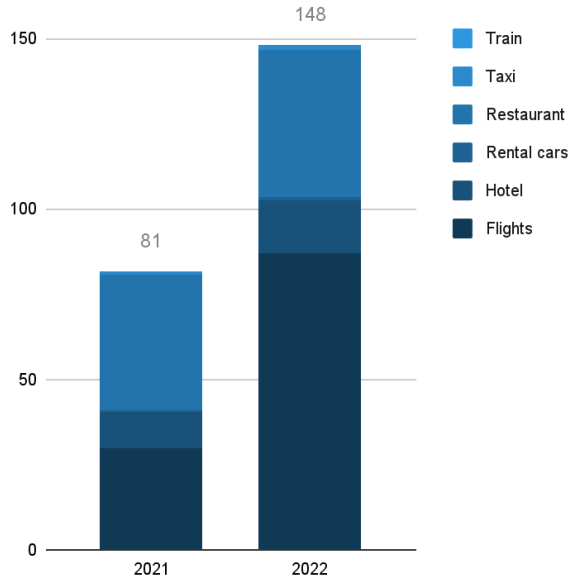
The emission factor used for flights has been updated, and applied retroactively. This results in higher reported emissions than shown in previous reports.



Business travel	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share 2022 (%)**	**Change 2021-2022**
Denmark	n/a	no data		
Norway	34	127	0,3%	269%
Sweden	81	148	0,4%	81%
Total	**116**	**275**	**0,7%**	**137%**

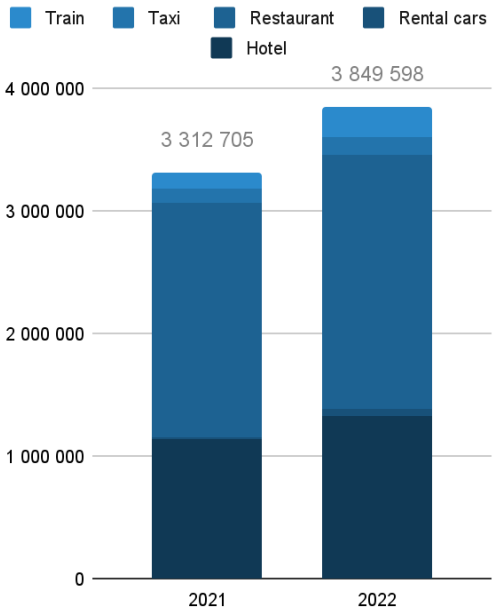
BUSINESS TRAVEL | Sweden | Emissions / Category

Business travel Sweden	2021 (t CO_2e)	2022 (t CO_2e)	Share (%)	Change 2021-2022
Flights	29,8	87,1	58,9%	192%
Hotel	10,7	15,3	10,3%	43%
Rental cars	0,2	0,9	0,6%	270%
Restaurant	39,9	43,4	29,4%	9%
Taxi	0,8	1,2	0,8%	47%
Train	0,0004	0,0007	0,0005%	102%
Total	**81,5**	**147,9**		**81%**



BUSINESS TRAVEL | Sweden | Spend

Spend Business travel Sweden	2021 (SEK)	2022 (SEK)	Share 2022 (%)	Change 2021-2022
Flights	-	-		
Hotel	1 139 544	1 329 687	34,5%	17%
Rental cars	18 228	59 091	1,5%	224%
Restaurant	1 910 551	2 076 532	53,9%	9%
Taxi	122 818	145 859	3,8%	19%
Train	121 564	238 429	6,2%	96%
Total	**3 312 705**	**3 849 598**		**16%**



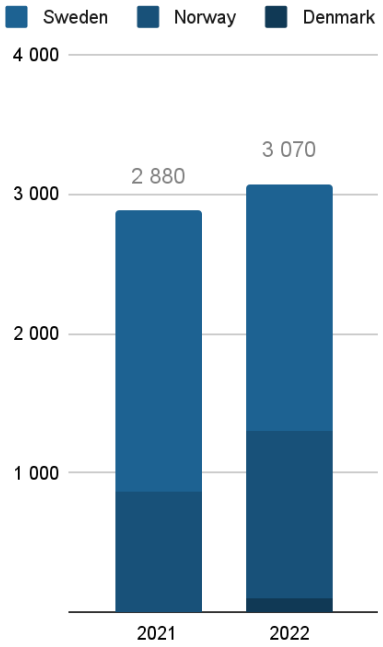
COMMUTING

COUNTRY / EMPLOYEE / MODE OF TRANSPORT

COMMUTING | Overview

Employee commuting in 2022 is estimated to cause emissions of a total of 3 070 tonnes of carbon dioxide, corresponding to 8% of Oleter Group's total climate impact in 2022 or 1.49 tonnes of carbon dioxide per employee - an increase of 7% from 2021. This was the first year all countries gathered primary data through questionnaires, leading to more robust results.

In Sweden, the employees traveled a total distance of 14 147 515 km back and forth to work, of which 92% was driven by car. On average, an employee in Sweden travels 47 km per day. Both the proportion of electric cars and electric hybrids is increasing. In 2020, 0.5% of car commuters drove an electric car, while in 2021, 2.9% of commuters drove an electric car and in 2022, this increased to 5.85%. The percentage driving plug-in hybrids increased from 5.4% in 2020 to 11.4% in 2021, and to 15.5% in 2022. The percentage driving pure gasoline or diesel has decreased from 89% in 2020 to 80% in 2021 and 75% in 2022. This is a very positive trend.



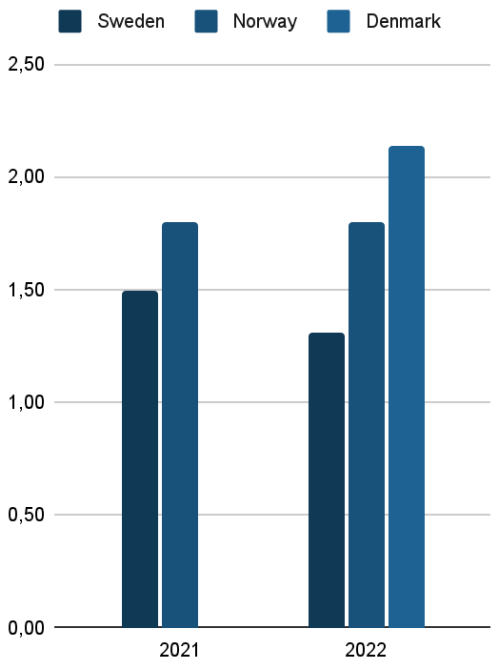
Commuting	**2021** (t CO_2e)	**2022** (t CO_2e)	**Share 2022 (%)**	**Change 2021-2022**
Denmark		103	0,3%	
Norway	867	1 197	3,2%	38%
Sweden	2 013	1 771	4,7%	−12%
Total	**2 880**	**3 070**	**8,2%**	**7%**

COMMUTING | Emissions / Employee

Commuting Sweden	2021	2022	Change 2021-2022
Emissions (t CO_2e)	2 013	1 771	−12%
Employees	1 343	1 350	1%
Emissions / employee (t CO_2e)	**1,50**	**1,31**	**−12%**

Commuting Norway	2021	2022	Change 2021-2022
Emissions (t CO_2e)	867	1 197	38%
Employees	483	667	38%
Emissions / employee (t CO_2e)	**1,79**	**1,79**	**0%**

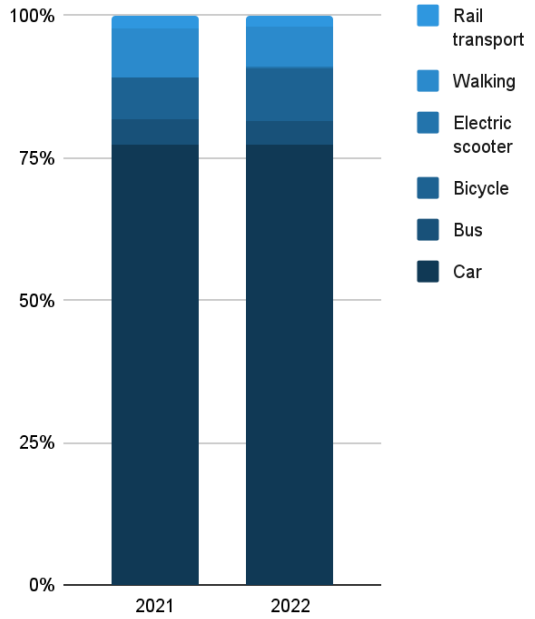
Commuting Denmark	2021	2022
Emissions (t CO_2e)	no data	103
Employees	no data	48
Emissions / employee (t CO_2e)	**no data**	**2,14**



COMMUTING | Sweden | KPI's

Commuting Sweden	2021	2022	Change 2021-2022
Total Commuting distance (km)	15 091 407	14 147 515	−6%
Employees	1 343	1 350	1%
Working days	223	223	0%
Commuting distance (km / employee)	11 237	10 480	−7%
Average distance / Working day/ Employee	50	47	−7%

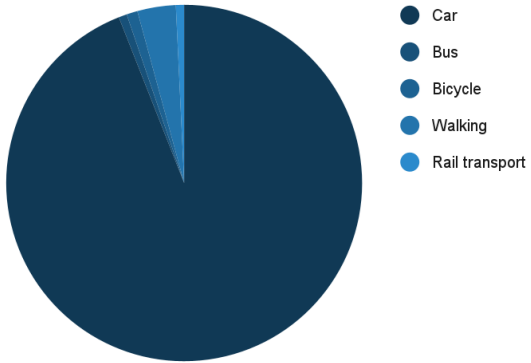
Vehicle Type Sweden	2021	2022
Car	76,6%	77,4%
Bus	4,3%	4,2%
Bicycle	7,4%	9,1%
Electric scooter	0,0%	0,3%
Walking	8,3%	7,2%
Rail transport	2,4%	1,9%



COMMUTING | Norway | KPI's

Commuting Norway	2022
Total Commuting distance (thousand km)	11 187 295
Employees	667
Working days	223
Commuting distance (km / employee)	16 773
Average distance / Working day/ Employee	75

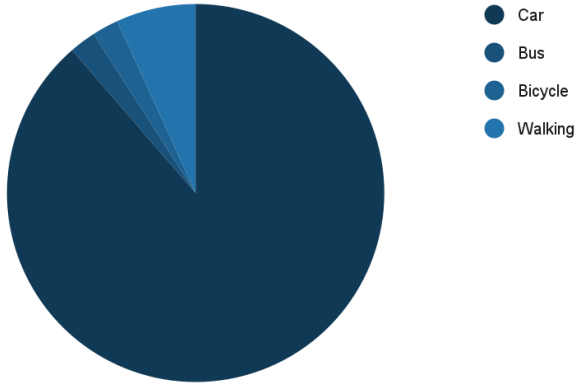
Vehicle Type Norway	2022
Car	94,0%
Bus	0,7%
Bicycle	1,0%
Walking	3,5%
Rail transport	0,7%



COMMUTING | Denmark | KPI's

Commuting Denmark	2022
Total Commuting distance (km)	727 260
Employees	48
Working days	223
Commuting distance (km / employee)	15 151
Average distance / Working day/ Employee	68

Vehicle Type Denmark	2022
Car	88,6%
Bus	2,3%
Bicycle	2,3%
Walking	6,8%



COMMUTING | Energy Type - Cars

Given that Oleter Group provides cars for some of their employees which are used for commuting, it is interesting to see which cshare of the cars are fossil free.

In Sweden, there is a positive trend with an increasing share of EVs as well as plug-in hybrids.

In Norway, the share of EVs is 26%. Given the amount of employees who commute by car and the distance, this in an important factor to limit the carbon emissions.

Commuters Sweden	2021	2022
Gasoline	28,1%	27,0%
Diesel	51,8%	48,3%
Diesel (100% bio)	3,4%	2,1%
EV (100% electric)	2,9%	5,8%
Flexifuel E85/Gasoline	1,2%	1,3%
Plug-in hybrid Gasoline	10,4%	14,7%
Plug-in hybrid Diesel	1,0%	0,8%

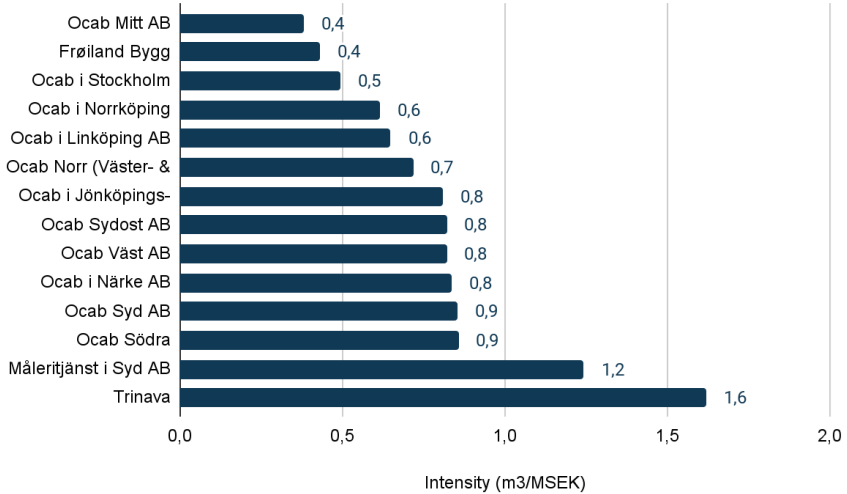
Commuters Norway	2022
Gasoline	0,5%
Diesel	70,6%
Diesel (100% bio)	0,3%
EV (100% electric)	26,0%
Plug-in hybrid Gasoline	2,4%
Plug-in hybrid Diesel	0,3%

Commuters Denmark	2022
Gasoline	12,8%
Diesel	74,4%
EV (100% electric)	2,6%
Plug-in hybrid Gasoline	10,3%

COMPANY KPIs

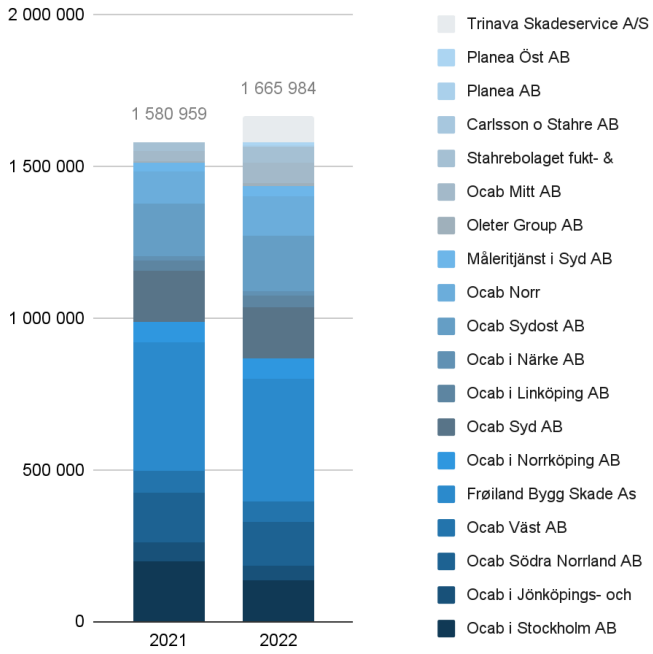
KPI | Fuel intensity

Brand	Turnover (MSEK)	Volume Fuel (liter)	Intensity (m3/MSEK)
Ocab Mitt AB	174	66 470	0,4
Frøiland Bygg Skade As	935	404 424	0,4
Ocab i Stockholm AB	271	134 270	0,5
Ocab i Norrköping AB	108	66 772	0,6
Ocab i Linköping AB	56	36 636	0,6
Ocab Norr (Norr & Väst)	176	126 376	0,7
Ocab i Jönköpings- och Skaraborgs län AB	59	48 112	0,8
Ocab Sydost AB	225	185 132	0,8
Ocab Väst AB	83	68 327	0,8
Ocab i Närke AB	16	13 085	0,8
Ocab Syd AB	198	169 468	0,9
Ocab Södra Norrland AB	171	146 312	0,9
Måleritjänst i Syd AB	30	37 326	1,2
Trinava Skadeservice A/S	54	87 997	1,6



KPI | Total fuel volume (liters)

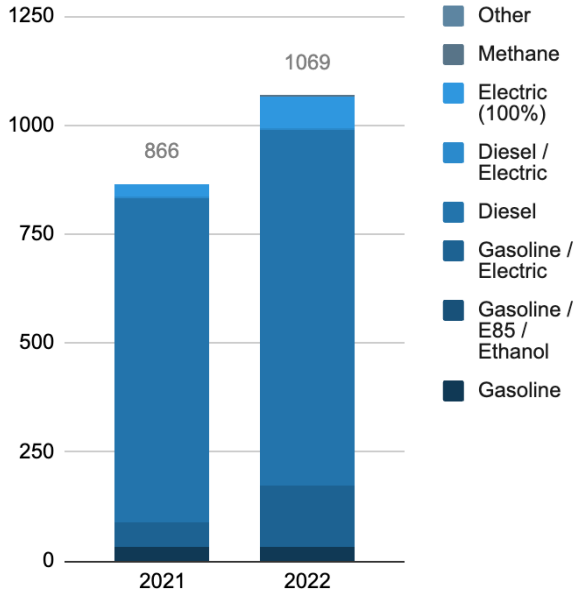
Brand	2021	2022	Change 2021-2022
Ocab i Stockholm AB	200 165	134 270	−33%
Ocab i Jönköpings- och Skaraborgs län AB	61 909	48 112	−22%
Ocab Södra Norrland AB	161 461	146 312	−9%
Ocab Väst AB	75 087	68 327	−9%
Frøiland Bygg Skade As	420 145	404 424	−4%
Ocab i Norrköping AB	68 181	66 772	−2%
Ocab Syd AB	169 480	169 468	0%
Ocab i Linköping AB	35 498	36 636	3%
Ocab i Närke AB	12 477	13 085	5%
Ocab Sydost AB	173 112	185 132	7%
Ocab Norr	103 584	126 376	22%
Måleritjänst i Syd AB	29 404	37 326	27%
Oleter Group AB	5 479	7 105	30%
Ocab Mitt AB	36 114	66 470	84%
Stahrebolaget fukt- & saneringsteknik AB	28 753	54 910	91%
Carlsson o Stahre AB	111	2 073	1770%
Planea AB		3 493	
Planea Öst AB		7 696	
Trinava Skadeservice A/S	n/a	87 997	



**It should be noted that an adjustment was made for this reporting period, to exclude the fuel consumption for when the vehicles are used outside of work. This implies that the reported fuel consumption is now lower than what has previously been displayed.*

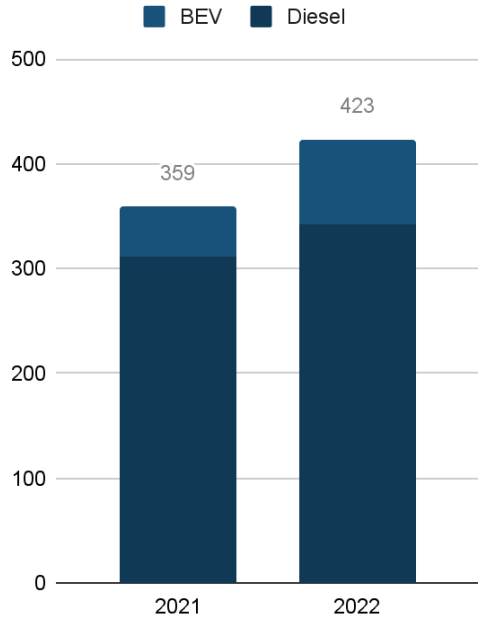
KPI | Vehicle fleet | Sweden

Type of vehicle	2021	2022	Change 2021-2022
Gasoline	33	32	−3%
Gasoline / E85 / Ethanol		2	
Gasoline / Electric	57	138	142%
Diesel	743	816	10%
Diesel / Electric	2	3	50%
Electric (100%)	30	76	153%
Methane	1	1	0%
Other		1	



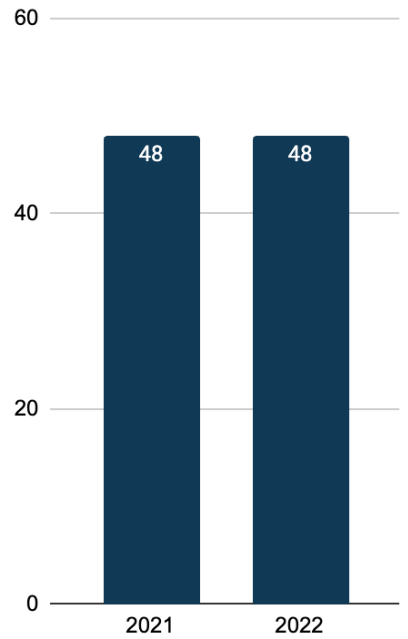
KPI | Vehicle fleet | Norway

Type of vehicle	2021	2022	Change 2021-2022
BEV	48	80	67%
Diesel	311	343	10%



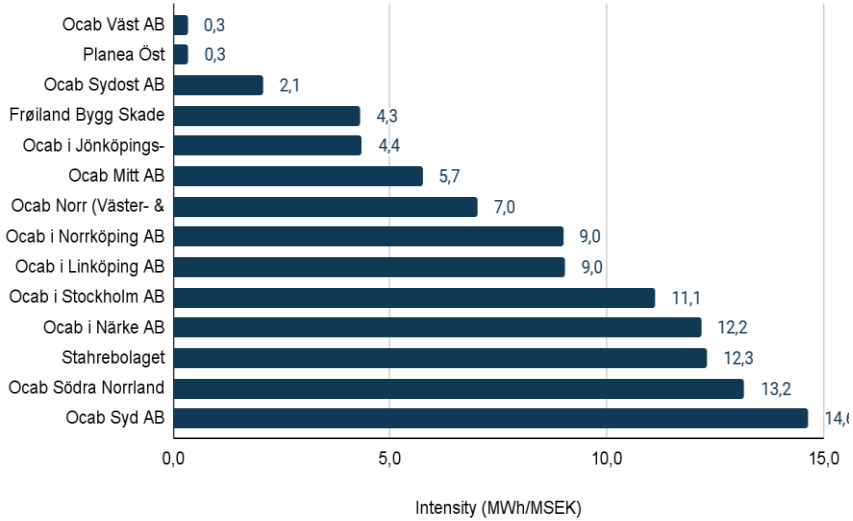
KPI | Vehicle fleet | Denmark

Type of vehicle	2021	2022	Change 2021-2022
Diesel	48	48	0%



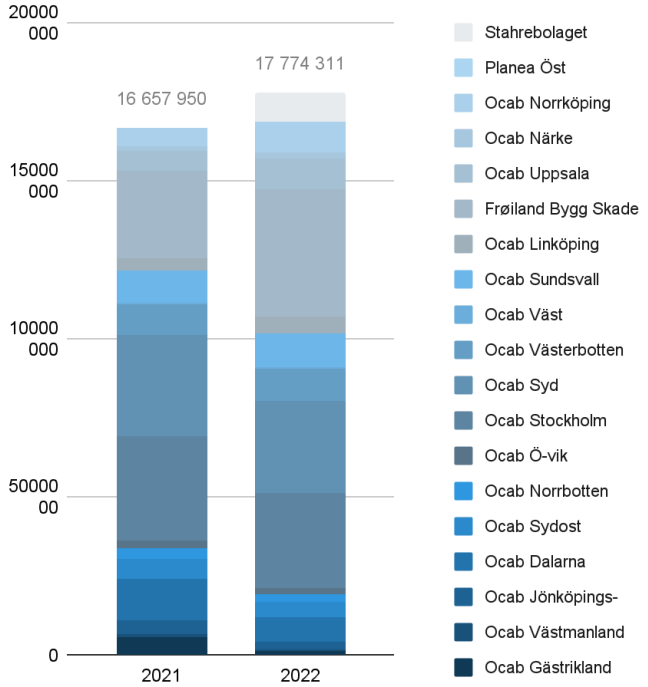
KPI | Energy use in projects

Brand	Turnover (MSEK)	Energy machinery (kWh)	Energy efficiency (MWh/MSEK)
Ocab Väst AB	83	27 193	0,3
Planea Öst	10	3 298	0,3
Ocab Sydost AB	225	466 625	2,1
Frøiland Bygg Skade As	935	4 023 551	4,3
Ocab i Jönköpings- och Skaraborgs län AB	59	258 315	4,4
Ocab Mitt AB	174	999 678	5,7
Ocab Norr (Norr & Väst)	176	1 235 080	7,0
Ocab i Norrköping AB	108	973 794	9,0
Ocab i Linköping AB	56	509 604	9,0
Ocab i Stockholm AB	271	3 016 526	11,1
Ocab i Närke AB	16	190 529	12,2
Stahrebolaget	75	921 717	12,3
Ocab Södra Norrland AB	171	2 247 261	13,2
Ocab Syd AB	198	2 901 141	14,6



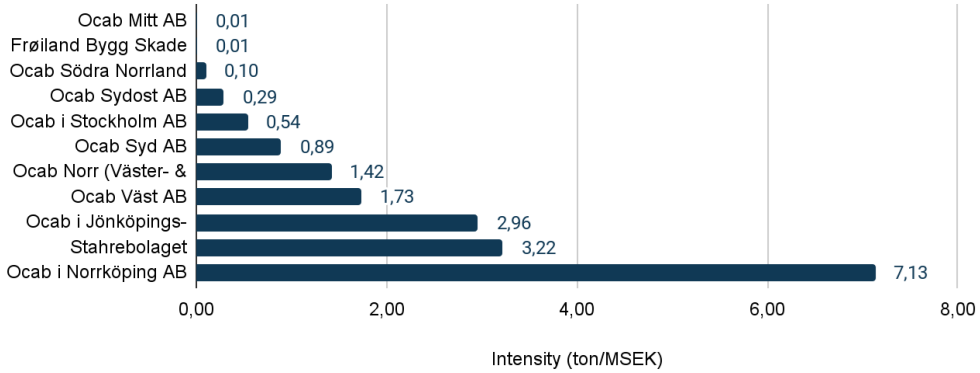
KPI | Energy use in projects | kWh

Brand	2021	2022	Change 2021-2022
Ocab Gästrikland	558 758	133 899	−76%
Ocab Västmanland	84 897	34 875	−59%
Ocab Jönköpings- och Skaraborgs län	439 761	258 315	−41%
Ocab Dalarna	1 338 259	791 667	−41%
Ocab Sydost	637 562	466 625	−27%
Ocab Norrbotten	302 324	230 531	−24%
Ocab Ö-vik	247 699	214 780	−13%
Ocab Stockholm	3 331 508	3 016 526	−9%
Ocab Syd	3 199 909	2 901 141	−9%
Ocab Västerbotten	973 667	1 004 549	3%
Ocab Väst	24 955	27 193	9%
Ocab Sundsvall	1 010 180	1 106 916	10%
Ocab Linköping	387 721	509 604	31%
Frøiland Bygg Skade As	2 754 644	4 023 551	46%
Ocab Uppsala	651 768	964 804	48%
Ocab Närke	117 467	190 529	62%
Ocab Norrköping	596 871	973 794	63%
Planea Öst		3 298	
Stahrebolaget		921 717	



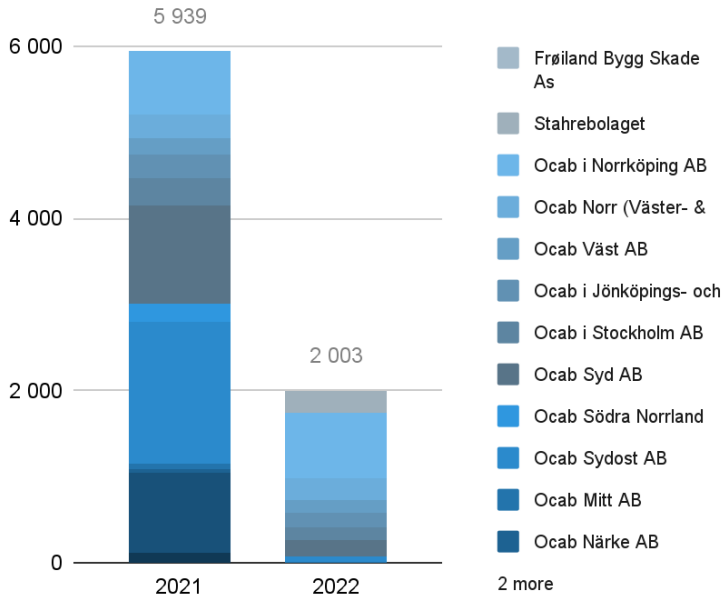
KPI | Waste

Brand	Turnover (MSEK)	Mixed waste (ton)	Intensity (ton/MSEK)
Ocab i Norrköping AB	108	773	7,13
Stahrebolaget	75	241	3,22
Ocab i Jönköpings- och Skaraborgs län AB	59	176	2,96
Ocab Väst AB	83	144	1,73
Ocab Norr (Väster- & norrbotten)	176	249	1,42
Ocab Syd AB	198	177	0,89
Ocab i Stockholm AB	271	147	0,54
Ocab Sydost AB	225	66	0,29
Ocab Södra Norrland AB	171	17	0,10
Frøiland Bygg Skade As	935	12	0,01
Ocab Mitt AB	174	2	0,01



KPI | Amount of mixed waste

Brand	2021	2022	Change 2021-2022
Ocab i Linköping AB	127		−100%
Carlsson o Stahre AB	927		−100%
Ocab Närke AB	35	0	−100%
Ocab Mitt AB	53	2	−97%
Ocab Sydost AB	1 650	66	−96%
Ocab Södra Norrland AB	219	17	−92%
Ocab Syd AB	1 144	177	−85%
Ocab i Stockholm AB	301	147	−51%
Ocab i Jönköpings- och Skaraborgs län AB	283	176	−38%
Ocab Väst AB	186	144	−23%
Ocab Norr (Väster- & norrbotten)	275	249	−9%
Ocab i Norrköping AB	737	773	5%
Stahrebolaget		241	
Frøiland Bygg Skade As		12	



DATA & APPENDIX

ABOUT THE REPORT

The principles of the GHG protocol

Like financial accounting and reporting, generally accepted GHG accounting principles are intended to guide GHG calculations so that the reported information represents a true and fair estimate of a company's GHG emissions. GHG calculations and reporting according to the GHG protocol must be based on the following principles:

Relevance
Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company.

Completeness
Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions

Consistency
Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.

Transparency
Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

Accuracy
Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

ABOUT THE REPORT

Time frame
The calculations for this report are based on sales, production, purchases, use of products and energy made throughout 2022. This means that the climate impact that occurs in the value chain is attributed to the year 20212, even if the climate impact that is caused extends over a longer period of time than this.

Emission categories
For the calculations in this report, the climate impact of Oleter Group has been divided into the following categories:
• Own transports
• Energy use in facilities
• Energy use from machinery
• purchases
• Waste
• Business travel
• Commuting

All the emission categories that are identified as relevant to the operations are accounted for and reported on.

Data collection
The data collection for the calculations in this report was done between January and March 2023, with great help from Oleter Group's employees and its suppliers.

Thanks to the data collection, the entire Scope 1 (direct emissions) has been calculated with primary data, and a large part of Scope 2 (indirect emissions through the purchase of electricity and heat). For the calculations of Scope 3 (other indirect emissions) primary data has been used to the greatest extent possible and secondary data and templates are used in cases where primary data was not available.

Assumptions
The main assumptions for the calculations in the report are as follows:
• Mileage estimate is based on average fuel consumption per vehicle type and the breakdown of mileage from diesel-powered vehicles is 21.5% Passenger car, 78.5% Light truck.
• It is assumed that district heating is used for heating unless otherwise specified.
• In the commuting data collection, 44% of employees in Sweden responded, 59% in Norway and 83% in Denmark. The total commuting and its emissions are based on these answers.

Not calculated
There are no emissions that have not been calculated in 2020 - 2022. All emissions that have been identified have also been calculated and reported.

EMISSION FACTORS

Own transports
Circle K
Preem
OKQ8
Shell
GLEC
Trafikanalys (Trafa)
European Environment Agency
LowCVP
International Council on Clean Transportation

Purchases
SCB

Waste
IVL
BEIS 2018
emissionfactors.com

Business travel
Chalmers
Carlsson Kanyama, A. et al (2019)
EEA
Naturvårdsverket / IVL

Electricity
Our World in Data
NVE
Energimarknadsinspektionen

District heating
Gävle Energi AB
Tranås Energi
Skövde Stadsnät
Tekniska Verken
Telge Energi
Södertörns fjärrvärme (SFAB)
ENA Energi AB
Umeå Energi
Luleå Energi
Pite Energi
Halmstad Energi
Kalmar Energi
Eskilstuna Energi & Miljö
Övik Energi AB
Jämtkraft
Gällivare Energi AB
Mälarenergi AB
Trollhättan Energi
Göteborg Energi
Norrtälje Energi
Sollentuna Energi & Miljö
Vattenfall
Skellefteå Kraft
Ystad Energi
Öresundskraft AB
Borås Energi
Uddevalla Energi
Karlstad Energi
Boden Energi AB
C4 Energi AB
E.ON
Hofor

Commuting
IVL, Svenska Miljöinstitutet
Energimyndigheten, 2018; SJ, 2013
Energimyndigheten, 2017; NTM, 2018
Joseph Hollingsworth, Brenna Copeland and Jeremiah X Johnson
Åkerman, 2012
MTR Nordic