

# Greenhouse Gas footprint 2022

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# Introduction

Otrium is committed to drive positive change through its business model and platform. Otrium's ultimate goal is to have a net positive impact. This means giving back more than we take through our business model, social and environmental impact

As part of this commitment, Otrium is looking into its own environmental impact and has conducted a carbon footprint analysis. The results of the analysis are depicted in this Greenhouse Gas report which is in accordance with the Greenhouse Gas Protocol. This report outlines the second greenhouse gas emission calculation for Otrium over the year 2021. Otrium conducted its first carbon footprint analysis based on the year 2020.

## Carbon to climate

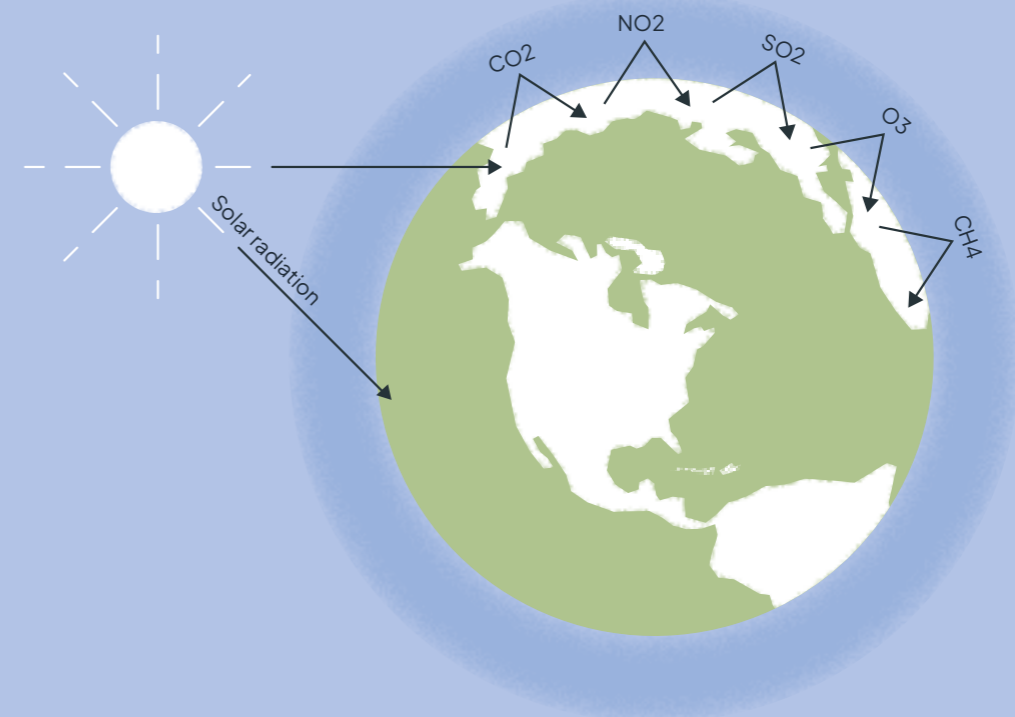
Carbon and climate change are interlinked, a carbon footprint represents the impact on climate change. Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas<sup>1</sup>.

Burning fossil fuels generates greenhouse gas emissions within the atmosphere that trap heat. They let sunlight pass through the atmosphere and they prevent the heat that the sunlight brings from leaving the atmosphere. They function as a blanket wrapped around Earth, trapping heat and raising temperatures.

Examples of greenhouse gas emissions that are causing climate change include carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>). These come from using gasoline for driving a car or coal for heating a building, for example. Clearing land and forests can also release carbon dioxide. Landfills for garbage are a major source of methane emissions. Energy, industry, transport, buildings, agriculture, and land use are among the main emitters.

Greenhouse gas emissions are consolidated and reported in CO<sub>2</sub> - equivalent units, providing a measure of the footprint in carbon equivalents. This is why many reports and researches are called the carbon footprint report rather than greenhouse gas report.

The carbon footprint represents the total volume of greenhouse gases (GHG) resulting from everyday economic and human activity. Knowing the carbon footprint of an activity, which is measured in tons of CO<sub>2</sub> emissions, is important when it comes to taking measures and launching initiatives to reduce it to the lowest possible level.



<sup>1</sup><https://www.un.org/en/climatechange/what-is-climate-change#:~:text=Burning%20fossil%20fuels%20generates%20greenhouse,inclue%20carbon%20dioxide%20and%20methane.>

# Organisational boundary

The organisational boundary is set in accordance with the Greenhouse Gas Protocol. Otrium consolidates emissions via the operational control approach. Otrium thus accounts for 100% of greenhouse gas emissions from operations over which it has operational control. For Otrium this implies in 2022 the two Amsterdam offices, London office, Paris office and New York office and the leased vehicles.

# Operational boundary

## Scope 1

Direct greenhouse gas emissions occur from sources that are controlled by the company, for example, emissions from combustion in boilers and vehicles. For Otrium these are:

- Combustion of natural gas at the Amsterdam office (other offices don't use gas)
- Combustion of leased vehicles over which Otrium has operational control

## Scope 2

Scope 2 emissions are indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the Otrium. Scope 2 emissions physically occur at the facility where the energy is generated. For Otrium this relates to:

- Electricity usage, district heating and cooling at the Amsterdam, London, Paris and New York offices

In accordance with the Greenhouse Gas Protocol, Otrium is required to report on scope 2 emissions (location based and market-based).

## Scope 3

Scope 3 emissions are a consequence of the activities of the company but occur from sources upstream or downstream in the supply chain and are not controlled by the Otrium. Otrium reports on absolute scope 3 emissions relating to:

- **Category 1: Purchased Goods and Services**
  - Purchased electronic devices
  - Purchased consumer packaging
  - Server data. This entails the emissions coming from data centre-servers which we use to store all data and the architecture behind our e-commerce platform
- **Category 3: Fuel and Energy Related Activities**
  - ○ Gas and electricity used by warehouses
- **Category 4: Upstream Transportation and Distribution**
  - First Mile logistics
  - Last mile logistics
  - Customer returns
- **Category 5: Waste Generated in Operations**
  - Waste generated from warehouses
- **Category 6: Business travel**
  - Business related travel, such as flights, trains, taxis, rental cars and hotel stays
- **Category 7: Employee commuting**
  - Commuting by employees working at offices
- **Category 12: End-of-Life Treatment of Sold products**
  - Disposal of consumer packaging

# Calculation methodology

Scope 1, 2 and 3 emissions are calculated with supplier specific data where possible. Both a market-based approach and a location-based approach are used to calculate the emissions relating to scope 2. In table 1, the calculation methods are

explained. If only partial invoices are available, the data is extrapolated to a full year (if the asset was in operation for a full year). If an asset was introduced for use during a year, only data for that period is considered.

Source of emissions	Calculation method
Gas usage	greenhouse gas emissions = $\text{m}^3 \text{ gas purchased per annum per country} * \text{country specific emission factor}$
Petrol	greenhouse gas emissions = $\text{litre of petrol used per annum} * \text{country specific emission factor for combustion of 1 litre of petrol}$
Electricity (market based)	greenhouse gas emissions = $\text{kWh per annum} * \text{emission factor specified in energy contract}$
Electricity (location based)	greenhouse gas emissions = $\text{kWh per annum} * \text{country specific emission factor}$
District heating	greenhouse gas emissions = $\text{kWh per annum} * \text{country specific emission factor}$
District cooling	greenhouse gas emissions = $\text{kWh per annum} * \text{country specific emission factor}$
Commuting	greenhouse gas emissions = $\text{km travelled} * \text{amount of employees commuting} * \text{emission factor per mode of transport}$
Business travel	greenhouse gas emissions = $\text{km per type of class and distance range per annum} * \text{emission factor per type of class and distance range}$
First mile logistics	greenhouse gas emissions = $\text{amount of transports} * \text{km shipping distance} * \text{avg. weight} * \text{emission factor tonnes CO}_2 - \text{eq/tonne km}$
Last mile logistics	greenhouse gas emissions = $\text{amount of shipped parcels per courier} * \text{emission factor per shipped parcel per courier}$
Packaging disposal	greenhouse gas emissions = $\text{amount of returned orders} * \text{emission factor per kg of disposed packaging material}$
Customer returns	greenhouse gas emissions = $\text{return rate} * \text{amount of CO}_2 \text{ emissions for shipped parcels}$
Waste from warehouse	greenhouse gas emissions = $\text{kg of waste per element} * \text{emission factor per kg wasted element}$



# Results

The total amount of greenhouse gases emitted for scope 1, 2 and 3 in 2022 was 1616.71 tons CO<sub>2</sub> – eq. conform to the market-based approach and 1660.47 tons CO<sub>2</sub> – eq. conform to the location based approach. In the graph below the emission sources and scopes are depicted (market based).

Scope	Tons CO <sub>2</sub> -eq.	Share
Scope 1	13.64	0.84%
Scope 2	0.71	0.04%
Scope 3	1602.36	99.11%
Total	1616.71	100%

## Comparing 2022 to 2021

Comparing our 2022 CO<sub>2</sub>-eq. impact to our 2021 gives us a clear insight into where we've improved and where we need to focus on in terms of reducing our impact. Pictured below are the largest impact areas. With this in mind, our future efforts to reduce these numbers can be better targeted.

Legend

X means not included in the scope of this year's report

V means included in the scope of this year's report

Data-point	2021 scope	2022 scope	Notes
First mile logistics	V	V	Data is gathered on the number of drops received per brand, assumptions are made regarding the locations of brand warehouses and the distances from these locations. For future GHG reports, improvements are going to be made regarding data gathering processes such as mode of transport during transportations, distance travelled, weight on transportations
Commuting	V	V	A survey was sent to employees to gather information regarding the distances they travel and the modes of transport they use to get to offices.
Gas, Amsterdam office	V	V	The Mindspace office closed in September 2022, leaving one office operational after that time. Only the Awarehouse office in Amsterdam uses gas. Data is received from the landlords, which includes gas usage, this data is used to calculate emissions.
Energy, Amsterdam office	V	V	The Mindspace office closed in September 2022, leaving one office operational after that time. Data received from the landlords, which includes information on electricity usage alongside any green certifications, this data is used to calculate emissions.
Energy, London office	V	V	Data received from the landlords, which includes information on electricity usage alongside any green certifications, is used to calculate emissions.
Energy, Paris office	V	V	The Paris office closed in July 2022. Data received from the landlords, which includes information on electricity usage alongside any green certifications, this data is used to calculate emissions.
Energy, New York	V	V	Data received from the landlords, which includes information on electricity usage, this data is used to calculate emissions. Emissions are based on assumptions due to the CoGen power plant generating heat, which makes the Industrious office not have any gas bills (since the gas/heat comes from the CoGeneration). The CoGen power plant is more energy efficient than normal fuel-based energy sources.
Gas & Energy, Warehouse in UK	V	V	The gas & energy used in our UK warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.
Gas & Energy, Warehouse in US	V	V	The gas & energy used in our US warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.
Waste, Warehouse in the US	V	V	The waste produced at our US warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.

Data-point	2021 scope	2022 scope	Notes
Waste, Warehouse in the NL	✓	✓	The waste produced at our US warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.
Waste, Warehouse in the UK	✓	✓	The waste produced at our US warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.
Business travel	✓	✓	For 2021 and 2022 the spent-based method from the GHG Protocol was primarily used - except for business flights, where the distance-based method was used. This was because it was the only way to calculate based on the information we had access to for this year. Travel-related invoices were used to calculate how much we spent on flights, trains, taxis, car rentals, etc.distance-based
Packaging	✓	✓	Packaging emissions are calculated using data compiled in an Excel spreadsheet, which includes information from the Position Green dashboard. Position green is a platform used as a carbon dashboard which collects data and calculates this into emissions.
Electronics	✓	✓	Emissions are calculated per purchased electronic device.
Server data	✓	✓	Server data emissions are calculated with a spend based method.
Business travel	✓	✓	Travel data is collected, and this data, which includes expenditure and fuel usage, is used to calculate emissions.
Last mile logistics	✓	✓	Our Logistics team collects outbound data, including the number of deliveries per courier, which is then input into Position Green to extract emissions.
Customer returns	✓	✓	The inbound data is calculated using the return rate for the year 2022 times the number of total outbound deliveries.
Purchased goods and services (not for resale)	✗	✗	Not in scope in 2022. This will be done for the 2023 GHG report, onwards

## Results 2022 (market based approach)

Scope	Location	Category	Kg CO <sub>2</sub> -eq.
Scope 1	Amsterdam hub	Natural gas	9,298.89
		Fuel usage	4,340.70
Scope 2	New York office	Purchased electricity	675.70
	Danzigerkade 15	Purchased electricity	0.00
	London	Purchased electricity	0.00
	Danzigerkade 16	Purchased electricity	0.00
	Paris office	Purchased electricity	0.00
		District cooling	15.69
		District heating	22.93
Scope 3	Warehouse Almelo, the Netherlands	Packaging material (purchase and disposal of)	490,313.88
		Warehouse - power	0.00
		Warehouse - gas	25,979.10
		First mile logistics	29,975.47
		Waste	4,431.68

Scope	Location	Category	Kg CO <sub>2</sub> -eq.
Scope 3	Warehouse, the United Kingdom	Packaging material (purchase and disposal of)	28,793.81
		Warehouse - power	6,260.10
		Warehouse - gas	0.00
		First mile logistics	6,479.00
		Waste	229.99
	Warehouse, the United States	Packaging material (purchase and disposal of)	785.76
		Warehouse - power	41,062.00
		Warehouse - gas	69,526.70
		First mile logistics	10,911.68
		Waste	191.34
	Emissions pertaining to multiple locations	Last mile logistics	546,407.57
		Customer returns	186,152.18
		Business travel	71,564.53
		Commuting	43,310.93
		Servers	33,469.00
		Electronic devices	6,513.00
<b>Total</b>			<b>1,616,711.63</b>

		2021 kg of CO <sub>2</sub> -eq.	2022 kg of CO <sub>2</sub> -eq.	Explanation	Next steps
Scope 1	Natural gas	72,600	9,298.89	Decreased offices from 5 to 3, however, all new offices do not use gas.	Continue transitioning to renewable energy sources to reduce reliance on traditional gas usage. Improve energy efficiency of existing and new facilities.
	Petroleum	709	4,340.70	During 2022 less information was available and the spent-based method was used, which generated a less accurate and overestimated result, in comparison to 2021. However, as 2022 marked the end of the COVID-19 pandemic, leased cars was more frequently used.	Switch to fully electric lease cars when needed.
Scope 2	Electricity (market based)	496	675.70	No significant changes.	Introduce efforts on helping to change to renewable energy at all offices.
	District heating and cooling	70.29	38.62	>Offices can be heated in several ways - most of Otrium's offices are heated through electricity or gas. District heating is one other option, which is only present in the Paris office. >Emission factor for district cooling changed. >The Paris office closed in July 2022.	Improve energy efficiency of existing and new facilities.
Scope 3	Category 1: Purchased electronic devices	27	6,513.00	Upgraded our offices and employees' equipment.	Continue to reuse and repair old and used electronic devices as much as possible. When new devices are needed, try to only buy second-hand and recovered devices.
	Category 1: Purchased consumer packaging	192 665	648,158	Increased inclusiveness of different types of packaging used in the data calculations thus the large increase in emissions. Additionally, > Increased number of orders: 107% > Increase packaging use: 76% Increase is due to sharp rise in sales and launching in several additional countries.	Where possible, eliminate the amount of packaging materials used, improve ability to reuse materials and introduce recyclable packaging materials.

		2021 kg of CO <sub>2</sub> -eq.	2022 kg of CO <sub>2</sub> -eq.	Explanation	Next steps
Scope 3	<p><i>Category 1:</i> Server data This entails the emissions coming from data centre-servers which we use to store all data and the architecture behind our e-commerce platform</p>	25,556	33,469.00	Otrium grew 16% compared to 2021 which resulted in increased demand for services. This resulted in higher data centre energy consumption which caused our emissions to rise.	Restructure our architecture to consume less energy from server providers.
	<p><i>Category 4:</i> First mile logistics This entails the logistics from goods from the warehouse of the fashion brand to warehouse of Otrium</p>	487,252	47,366.15	> Improved data gathering and eliminated the inclusion of assumptions which resulted in a lower total of CO <sub>2</sub> - eq but still not all processes are tracked.	Improve data gathering to get more exact emissions. Introduce policy on more efficient and less emitting transportation vehicles, only work with transportation companies which are constantly improving environmental footprint with less carbon emissions.
	<p><i>Category 4:</i> Last mile logistics This entails logistics from Otrium's warehouse to the end-customer</p>	1,011,821	546,407.57	> Improved the data gathering and eliminated the inclusion of assumptions which resulted in a higher total of CO <sub>2</sub> - eq. > Opted to partners deploying more efficient and sustainable transportation vehicles.	Improve data gathering to get more exact emissions. Introduce policy on more efficient and less emitting transportation vehicles, only work with transportation companies which are constantly improving environmental footprint with less carbon emissions.
	<p><i>Category 4:</i> Customer returns This entails return transport from end-customer to Otrium's warehouse</p>	237,410	186,152.18	In 2022 we introduced a return policy which resulted in fewer returns from our end-customers to our warehouse.	Improve data gathering to get more exact emissions. Introduce policy on more efficient and less emitting transportation vehicles, only work with transportation companies which are constantly improving environmental footprint with less carbon emissions.
	<p><i>Category 3:</i> Warehouse utilities usages (gas and electricity)</p>	138,233	142,827.90	Change in Emission Factor for Gas Consumption at Warehouse NL. Besides, no significant changes.	Continue switching to green energy and work together with suppliers to incentivise this. Help to improve energy efficiency of existing and new facilities.

		2021 kg of CO <sub>2</sub> -eq.	2022 kg of CO <sub>2</sub> -eq.	Explanation	Next steps
Scope 3	Category 5: Waste from warehouses	11,895	4,853.01	Our warehouse partner Bleckmann introduced a zero-waste program steering down a large amount of emissions	Eliminate waste, our warehouse suppliers are currently working on a zero-waste target.
	Category 6: Business travel	44,924	71,564.53	Due to the end of the COVID-19 era, we slowly started having more offsites and warehouse visits for our employees.	Introduce the travel policy and carbon budget. > Usage of train over plane > Only travel when necessary (virtual meetings) Introducing an app where all travel related data is stored for better and more accurate data gathering.
	Category 7: Employee Commuting	51,128	43,310.93	>We have a 'Remote first' policy, incentivising our employees to work from home 90% of the time. >More employees switched to alternative modes of transport such as trains and the subway.	Incentivise train travel (or other public transport), biking instead of driving your own car.
	Category 12: Disposal of consumer packaging	11,566	8,395.58	In April 2022, we introduced a packaging machine, creating envelopes + less air for single line orders resulting in reduced waste generation.	Apart from to reduce, reuse and recycle; improve knowledge on what happens with packaging used, create incentives on getting packaging back to improve certainty of recycled materials.
<b>Total kg of CO<sub>2</sub>-eq.</b>		2,742,252	1,616,711.63		

Tons of CO <sub>2</sub> – eq. per source									
Last mile logistics	Packaging material	Customer returns	Commuting/ Business travel	Warehouse gas	First mile logistics	Warehouse power	Purchased goods and services	Offices	Warehouse waste
33.80%	32.16%	11.51%	7.37%	5.91%	2.93%	2.93%	2.47%	0.62%	0.30%



# Responsibilities

The Sustainability Team is responsible for the correct reporting of the greenhouse gas footprint.

The Sustainability team is supported by the Logistics team, the Partnerships team and the Finance team which assists in gathering the data and assures completeness regarding the locations in scope. The data is gathered in the ESG reporting platform tool of Position Green. Willow Sustainability (an advisory consultancy firm) reviewed the calculations and the final report before publication. They provided valuable feedback and recommendations for improvement. The calculation is done annually, and the results are disclosed on the website of Otrium. The methodology used is in line with the Greenhouse Gas Protocol, a Corporate Accounting and Reporting Standard.

# Thank you

## Our sustainability partners and accreditations



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