Greenhouse Gas footprint 2024

Introduction

Otrium is committed to driving positive change in the fashion industry, with the ultimate goal of having a net positive impact. This means giving back more than we take through our business model: socially and environmentally.

To ensure we uphold our standards and progress towards this goal, we have examined Otrium's environmental impact in 2024 and conducted a carbon footprint analysis. The results of the analysis are included in this report, which compiles Otrium's greenhouse gas emissions calculation in accordance with the Greenhouse Gas Protocol. This report outlines the fifth greenhouse gas emission calculation for Otrium, with the first carbon footprint analysis conducted in 2020.

In 2024, Otrium's near-term greenhouse gas (GHG) reduction targets were officially validated by the Science Based Targets initiative (SBTi). We aim to cut Scope 1, 2, and 3 emissions by 33.6% by 2028, using 2023 as our baseline. The carbon footprint report reflects on our progress towards our commitment.

Carbon to climate

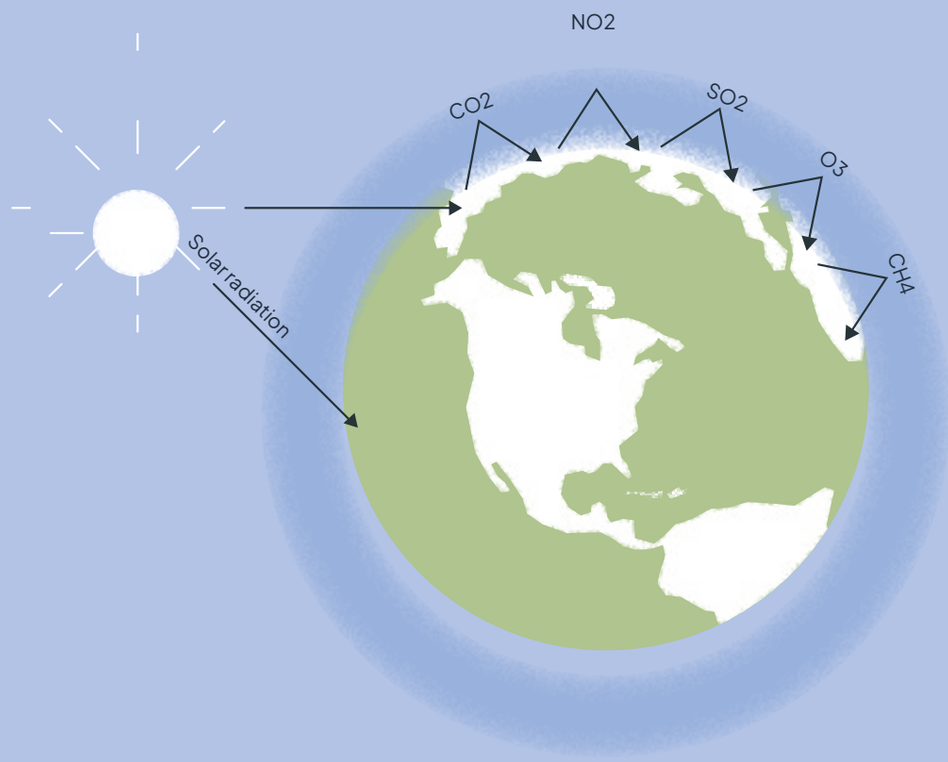
Carbon and climate change are closely intertwined. A carbon footprint measures the amount of carbon dioxide (CO_2) released into the atmosphere as a result of our individual and corporate actions. However, CO_2 is just one type of emission under the broader category known as greenhouse gas (GHG) emissions.

GHG emissions include not only CO_2, but also other gases such as methane (CH_4), nitrous oxide (N_2O), and fluorinated gases, all of which contribute to the greenhouse effect, the primary cause of global warming and climate change. To measure a company's climate impact, these emissions are converted to carbon dioxide equivalents (CO_2-eq) based on their Global Warming Potential, providing a unified metric for comparison.

Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as those caused by variations in the solar cycle. However, since the 1800s, human activity has been the primary driver of climate change, mostly due to the burning of fossil fuels such as coal, oil, and gas.

Burning fossil fuels causes GHG emissions to trap heat within the atmosphere. Sunlight passes through, and the heat it generates is unable to escape. Greenhouse gases function as a blanket wrapped around Earth, trapping heat and raising temperatures, as illustrated below.

A carbon footprint is measured by tons of CO_2-eq; therefore, a smaller carbon footprint means a lesser climate change impact. A carbon footprint, which is measured in tons of CO_2-eq, represents the total volume of GHGs resulting from economic and human activity. Understanding the carbon footprint of a specific activity is crucial for taking measures and launching initiatives to reduce it to the lowest level possible.



[1]https://ghgprotocol.org/sites/default/files/2022-12/Required%20gases%20and%20GWP%20values_0.pdf
[2]https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/

Organisational boundary

The organisational boundary defines which aspects of a company's operations are included when calculating its greenhouse gas (GHG) emissions, and is set in accordance with the Greenhouse Gas Protocol. Otrium consolidates emissions using the operational control approach.

This means Otrium takes 100% responsibility for emissions from any facility or operation we control. In 2024, Otrium operated from two offices in Amsterdam: the original location at Mindspace and a newly relocated office at Ace Club after having closed the Mindspace location in August 2024. Otrium functioned from both premises throughout the year; therefore, we take into account the combined emissions of both facilities.

Operational boundary

The operational boundary outlines which types of emissions are included, based on the company's activities and how it operates.

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 emissions would occur in connection with the following:

1. Stationary Combustion: Fuel combustion in boilers and other stationary sources at Otrium facilities:
   - **Mindspace, Amsterdam** (former office)
   - **Ace Club, Amsterdam** (current office)

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

- Mindspace: Indirect emissions from purchased electricity used at Otrium's former office location
- Ace Club: Indirect emissions from purchased electricity used at Otrium's current office location.

Heating

- Mindspace: Indirect emissions from purchased heating used at Otrium's former office location.
- Ace Club: Indirect emissions from purchased heating used at Otrium's current office location.

Steam/Cooling

- Minimal or zero emissions reported for Mindspace and Ace Club.

Scope 3

While Scope 3 emissions are a consequence of the company's activities, they occur from sources upstream or downstream in the supply chain and are not controlled by Otrium. We report on absolute Scope 3 emissions relating to:

Category 1: Purchased Goods and Services

- Packaging, items for resale, server/data centre emissions, purchased goods and services.

Category 2: Capital Goods

- Electronic devices (e.g. laptops, office equipment).

Category 3: Fuel- and energy-related activities not included in scopes 1 & 2

- Upstream emissions from fuel extraction/production (e.g. natural gas for warehouses).

Category 4: Upstream Transportation and Distribution

- First mile logistics and combustion of natural gas at the Bleckmann Warehouse.
- Last mile transportation for our order deliveries and returns.

Category 5: Waste Generated in Operations

- Office and warehouse waste.

Category 6: Business Travel

- Flights, trains, taxis, and other transportation.

Category 7: Employee commuting

- Emissions from employee travel to Otrium sites.

Category 11: Use of Sold Products

- Emissions resulting from the use of products sold on Otrium's platform.

Category 12: End-of-Life of Sold Products

- Emissions resulting from the disposal of products sold on Otrium's platform.

Our target

In 2024, Otrium's near-term greenhouse gas (GHG) reduction targets were officially validated by the Science Based Targets initiative (SBTi). Otrium commits to reduce absolute scope 1 and 2 GHG emissions 33.6% by 2028 from a 2023 base year. It also commits to reduce absolute scope 3 GHG emissions from purchased goods and services, upstream transportation and distribution, waste generated in operations, business travel, employee commuting 33.6% within the same timeframe.

Calculation methodology

Scope 1, 2, and 3 emissions are calculated with supplier-specific data where possible. Both a market-based and a location-based approach are used to calculate Scope 2 emissions.

If only partial invoices are available, the data is extrapolated to represent a full year, provided the asset was operational for the entire year. If an asset was introduced partway through the year, only data for that period is considered.

Source of emissions	Calculation method
Gas usage	greenhouse gas emissions = Ξm3 gas purchased per annum per country * country specific emission factor
Petrol	greenhouse gas emissions = litre of petrol used per annum * country specific emission factor for combustion of 1 litre of petrol
Electricity (market based)	greenhouse gas emissions = kWh per annum * emission factor specified in energy contract
Electricity (location based)	greenhouse gas emissions = kWh per annum * country specific emission factor
District heating	greenhouse gas emissions = kWh per annum * country specific emission factor
District cooling	greenhouse gas emissions = kWh per annum * country specific emission factor
Commuting	greenhouse gas emissions = km travelled * amount of employees commuting * emission factor per mode of transport
Business travel	greenhouse gas emissions = km per type of class and distance range per annum * emission factor per type of class and distance range
First mile logistics	greenhouse gas emissions = amount of transports * km shipping distance * avg. weight * emission factor tonnes CO2 – eq/tonne km
Last mile logistics	greenhouse gas emissions = amount of shipped parcels per courier * emission factor per shipped parcel per courier
Packaging disposal	greenhouse gas emissions = amount of returned orders * emission factor per kg of disposed packaging material
Customer returns	greenhouse gas emissions = return rate * amount of CO2 emissions for shipped parcels
Waste from warehouse	greenhouse gas emissions = kg of waste per element * emission factor per kg wasted element
Purchased goods (for resale)	greenhouse gas emissions = material used*country or regional specific manufacturing factor*processing stages factors (e.g. dyeing, finishing) where possible

Comparing 2024 to 2023 and our SBTI target progress

Comparing our 2024 CO2-eq data to that of the previous year provides a clear insight into the areas where we've improved and where we still have room to grow. It is important to note that this year's emissions comparison reflects the closure of our UK and US operations, which have significantly affected our overall emissions, particularly in Scope 3. To ensure a fair and accurate comparison for our SBTi targets, in line with the SBTi guidelines, only emissions from our US operations were excluded from the baseline.

Additionally, some emission categories are excluded from our Science Based Targets calculations. The corresponding emissions in these categories for 2024 are also excluded in the SBTi calculations.

For the first time, the 2024 report includes emissions associated with items for which Otrium holds ownership prior to final sale, in alignment with the GHG reporting protocol.

Results

Otrium released zero Scope 1 emissions in 2024. The total amount of greenhouse gases emitted for Scope 2 in 2024 was 11.7 tons CO2-eq following the market-based approach, and 28.5 tons following the location-based approach. Similarly, the total amount of greenhouse gases emitted for Scope 3 in 2024 was 6845.58 tons CO2-eq. Our market-based emission types are outlined below.

Scope	Tons CO2-eq.	Share
Scope 1	N/A	0%
Scope 2	11.70	0.17%
Scope 3	6845.58	99.83%
Total	6857.28	100%

Data-point	2023 emissions	2024 emissions	Notes
Gas, Amsterdam office	V	V	Data received from our landlords, including gas usage, is used to calculate emissions.
Gas and energy, NL warehouse	V	V	The gas and energy used in our NL warehouse is tracked and measured by our partner Bleckmann, with the data shared with us in an annual report.
Energy, Amsterdam office	V	V	Data received from our landlords, including information on electricity usage alongside any green certifications, is used to calculate emissions.
Purchased goods and services (for resale)	**X**	V	Purchased goods and services for resale are calculated based on the stock descriptions of purchase orders. These emissions weren't present in 2023.
Purchased goods and services (not for resale)	V	V	Purchased goods and services (not for resale) are calculated using spend data.
Packaging	V	V	We base our analysis on the actual packaging consumption and CO_2 metrics provided by our 3PL partner, Bleckmann.
Server data	V	V	The New York office closed at the end of 2023. 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.
Electronics	V	V	The gas & energy used in our NL warehouse is tracked and measured by our partner Bleckmann and is sent to us through their annual report.

Data-point	2023 scope	2023 scope	Notes
Server data	V	V	Server data emissions are calculated using a spend-based method and host-provided data.
Electronics	V	V	Emissions are calculated per purchased electronic device.
Energy-related activities not in Scopes 1 and 2	V	V	Vaayu uses its own methodology to calculate energy-related emissions, including fuel usage and consumption not accounted for in Scopes 1 and 2.
Last mile logistics	V	V	Our Partner, Vaayu, collects our last mile data by integrating with our logistics systems and couriers. It monitors real-time delivery data and applies supplier-specific factors to calculate GHG emissions.
Customer returns	V	V	Using last mile data, Vaayu collects our returns data by monitoring real-time returns and applying supplier-specific emission factors.
Waste, NL warehouse	V	V	The waste produced at our NL warehouse is tracked and measured by our partner Bleckmann and shared with us in an annual report.
Business travel	V	V	Emissions are calculated using travel invoices, including costs for flights, train journeys, accommodation, and fuel usage.
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 Otrium offices.
Use of sold products	**X**	V	Vaayu uses its own methodology to calculate emissions from the use of sold products with prior Otrium ownership, based on the stock descriptions.
End of life sold products	**X**	V	Emissions resulting from the disposal, recycling, incineration, or landfilling of products sold on Otrium's platform after customer use. These are indirect emissions that occur downstream and depend on consumer behavior and local waste treatment methods.

Table 1: Differences between the 2023 report, 2023 SBTi baseline and 2024 report

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

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

Results 2024 (market based approach)

Scope	Category	Total (Mt CO_2e)
Scope 1	Stationary Combustion	0
	Mobile Sources	0
	Fugitive Emissions	0
Scope 2	Scope 2 Market-Based	11.7 Market-Based Electricity - 0 Market-Based Heating - 11.7
	Scope 2 Location-Based	28.5 Location-Based Electricity - 16.8 Location-Based Heating - 11.7
Scope 3	3.1 Purchased Goods and Service	Total: 3561.10 Cloud and Hosting: 123.38 Purchased Goods and Services (not for resale): 742.02 Purchased Goods and Services (for resale): 1903.31 Secondary Packaging: 792.39
	3.2 Capital Goods	3.52
	3.3 Energy-Related Activities Not in Scopes 1 and 2	6.47
	3.4 Upstream Transportation and Distribution	2587.38
	3.5 Waste (Operations)	370.27
	3.6 Business Travel	35.43
	3.7 Employee Commuting	58.31
	3.11 Use of Sold Products	197.68
	3.12 End-of-Life of Sold Products	25.42

Table 2: All 2024 CO_2 Data

2023 vs 2024 – The What, Why, and How

	Category	2023 kg of CO_2-eq.	*2023 SBTi baseline kg of CO_2-eq.	2024 kg of CO_2-eq	Explanation	Next steps
Scope 1	Leased vehicles	2,053	2,053	0	In August 2023, we decided to stop using leased cars. Hence, there were no Scope 1 emissions to consider for the 2024 reporting year.	We have permanently phased out the use of leased vehicles.
Scope 2	Electricity (market based)	1,016	40	0	We stopped with 2 offices at the end of 2023, and our remaining previous and current offices in Amsterdam operate on renewable energy.	We aim to continue using renewable energy where possible.
	Heating (market-based)	14,150	14,150	11,700	The decrease of emissions is due to the closing of offices and moving the remaining one to a smaller, all-electric space powered by renewable energy.	We aim to continue operating from shared spaces.

	Category	2023 kg of CO_2-eq.	*2023 SBTi baseline kg of CO_2-eq.	2024 kg of CO_2-eq	Explanation	Next steps
Scope 3	Category 1: Purchased consumer packaging	939,710	918,020	792,390	Due to a methodology update this year, we based our analysis on actual consumption of materials and consumables for greater accuracy.	In the coming years, we plan to introduce a new polybag machine which will reduce our use of plastic packaging.
	Category 1: Server data	862,930	768,920	123,380	The reduction is driven by three key factors: a shift in methodology from spend-based calculation to host-provided data, the closure of UK and US operations, and optimised server consumption.	For next steps, we aim to further optimise our server space and shift all vendors to our new methodology.
	Category 1: Purchased goods and services (not for resale)	1,813,620	1,813,620	742,020	The reduction in category 1 emissions is primarily driven by a strategic shift in priorities, such as streamlining marketing and operational expenditures to meet our profitability goals.	We aim to enhance our visibility of emissions generated through purchased goods and services, while prioritising more sustainable partnerships.
	Category 1: Purchased goods and services (for resale)	N/A	N/A	1,903,310	Otrium sometimes also takes ownership of garments before they are sold to customers. According to the GHG protocol, this increases our responsibility within the supply chain.	We are determined to explore various levers to reduce our footprint from purchased goods while staying true to our sustainable mission to clear brands' excess stock and match items to end owners.
	Category 2: Purchased electronic devices	5,820	excl.	3,520	This reduction was primarily driven by a decrease in headcount following the closure of our UK and US operations.	We aim to extend the lifespan of existing devices.

	Category	2023 kg of CO_2-eq.	*2023 SBTi baseline kg of CO_2-eq.	2024 kg of CO_2-eq	Explanation	Next steps
Scope 3	Category 3: Energy-related activities not in Scopes 1 and 2	6,410	excl.	6,470	Although we reduced the number of facilities, the slight increase in emissions is primarily due to a shift in category attribution, rather than an actual increase in emissions within this category.	Our next steps involve collaborating with Bleckmann to ensure energy efficiency, taking into account that our on-site machinery will inevitably increase our energy consumption.
	Category 4: First mile logistics	1,964,454	3,364,250	843,160	Our emissions for this category declined due to consolidated inbound deliveries and reduced operational activity.	As this category remains our most data-challenging, we will focus on improving data accuracy while collaborating with brands and suppliers to encourage more sustainable shipping methods. New policies will be introduced to support this transition.
	Category 4: Last mile logistics and customer returns	2.125,187		1,300,000	Emissions declined due to reduced operational activity and larger, consolidated orders.	We will expand the adoption of more sustainable delivery methods across all regions, conduct in-depth research to identify the most effective solutions, and remain committed to continuously reducing emissions within outbound logistics.
	Category 4: Warehouse utilities usage (gas and electricity)	1,501,410	714,470	444,220	This decrease in emissions is due to the closures of our warehouses in the UK and US markets.	We will continue collaborating with Bleckmann to ensure energy efficiency.
	Category 5: Waste generated from operations	963,250	249,120	370,270	This decrease in emissions is due to the closures of our warehouses in the UK and US markets. Our current recycling rate stands at 96.5% according to the report provided to us by our 3PL, Bleckmann.	We will continue our efforts to maintain a high recycling rate.

	Category	2023 kg of CO_2-eq.	*2023 SBTi baseline kg of CO_2-eq.	2024 kg of CO_2-eq	Explanation	Next steps
Scope 3	Category 6: Business travel	279,480	104,500	35,425	Due to the closure of business operations in the UK and US, business travel between Europe and the US ceased, resulting in a decrease in emissions.	We aim to incentivise employees to travel responsibly by creating a sustainable business travel policy, encouraging more train travel and online meetings.
	Category 7: Employee commuting	43,200	43,200	58,310	At Otrium, one of our core values is Only Together. We've increased our in-office days to strengthen team connection – while this has led to a rise in emissions, it has also enhanced collaboration and culture.	While we value our time in the office, we also support a flexible hybrid work model. We actively encourage our team to use public transport whenever possible.
	Category 8: Upstream leased assets	3,010	0	0	In 2024, our Amsterdam office was under our operational control. Its emissions are included in Scope 1 and 2, so no emissions are reported under this category.	Keep office spaces under our operational control.
	Category 11: Use of sold products	N/A	excl.	197,680	Last year, these emissions were not within the reporting scope. This year, they are included due to Otrium taking ownership of certain products before sale.	These emissions are likely to remain steady or increase moving forward.
	Category 12: End-of-Life of Sold Products	N/A	excl.	25,420	Last year, these emissions were not within the reporting scope. This year, they are included due to Otrium taking ownership of certain products before sale.	These emissions are likely to remain steady or increase moving forward.
Total kg of CO_2-eq.		10,525,700	7,992,397	6,857,280		

Table 3: Comparison of 2023 and 2024 emissionsper category (scope 3)

**Some emission categories are excluded from our Science Based Targets. These are marked "excl." in the rebaseline column and are not calculated for SBTi purposes in 2024. The SBTi baseline also excludes emissions from the US operations.*

	Tons of CO_2 – eq. per source									
	Consumer packaging	**Purchased Goods & services (not for resale)**	**Purchased Goods & services (resale)**	**First Mile Logistics**	**Last Mile Logistics (incl. returns)**	**Warehouse utilities**	**Operational Waste**	**Business travel & Commute**	**Use of sold products & End-of-life**	**Others**
Tons CO_2e	792.39	742.02	1903.31	843.16	1300.00	444.22	370.27	93.74	223.10	133.37
%	11.58%	10.84%	27.80%	12.32%	18.99%	6.49%	5.41%	1.37%	3.26%	1.95%

Table 4: Percentage distribution of Otrium's GHG Scope 3 emissions in 2024

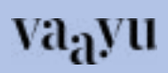
Responsibilities

Otrium's Sustainability team is responsible for accurately reporting our greenhouse gas footprint.

The Sustainability team is supported by the Logistics team, the Partnerships team, and the Finance team, which assist in gathering the data and ensuring that all required information for the relevant locations is complete. Our carbon accounting partner, Vaayu, gathers the data and then calculates the impact results. Willow Sustainability, a sustainability advisory firm, reviews the calculations and the final report before publication, providing valuable feedback and recommendations for improvement. The analysis is conducted annually, and the results are published on the Otrium website. 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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