



Brussels Beer Project Carbon Footprint 2023

- 22 tons CO2e

low-carbon energy

+ 7 people reached

recycling

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- **02 Summary** : key figures of your carbon footprint
- **03 Results** : comprehensive details of your émissions
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Glossary of acronyms used

GHG: Greenhouse gas, we are only interested here in the gases causing climate change

CO2e: carbon dioxide equivalent, the unit of measurement of GHGs

EF: Emission Factor, conversion factors between activity data and CO2e

PCG: <u>Plan carbone général</u>, exhaustive carbon footprint methodology in open source



Introduction

The **Bilan Carbone**® is a carbon accounting method created in France in 2004 by ADEME and now supported by the Bilan Carbone Association (ABC).

The objective of a Bilan Carbone® is to **measure all the emissions physically necessary for a company's activity** (we can speak of physical dependence on carbon), including its upstream (procurement, freight, etc.), production and downstream (distribution, use of products sold, etc.) activities.

Emissions are calculated by **multiplying an activity data** (physical or financial) by an **Emission Factor** from a reference database (carbon base, ADEME impact base, etc.):



What are the Scopes?

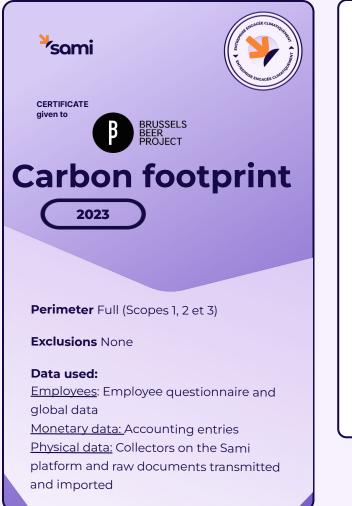
The Scopes designate the perimeter of the GHG emissions of the Bilan Carbone, they are divided into 3 categories:

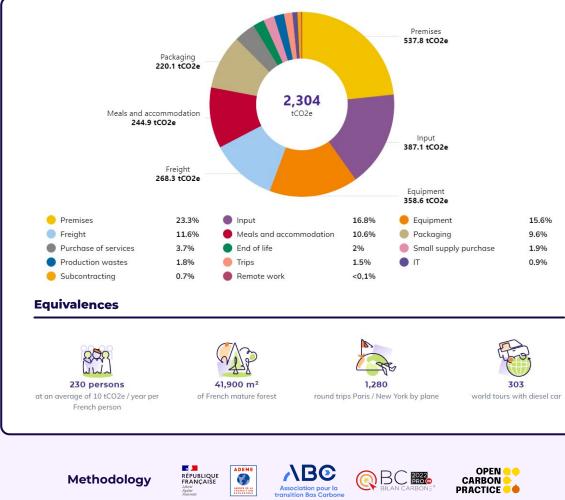
Scope 1: direct GHG emissions, mainly due to the combustion of fossil fuels for heating or company vehicles.

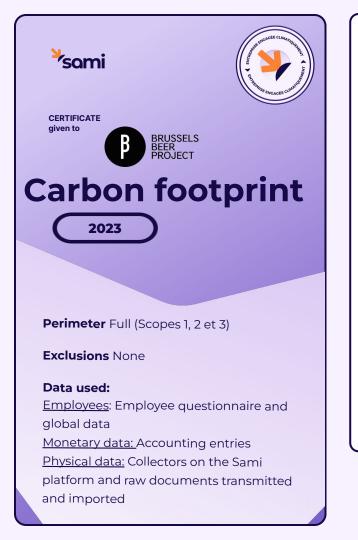
Scope 2: indirect emissions associated with the production of electricity and heat.

Scope 3: all other indirect emissions from your value chain (travel, purchasing, waste, etc.). This Scope generally concentrates most emissions.

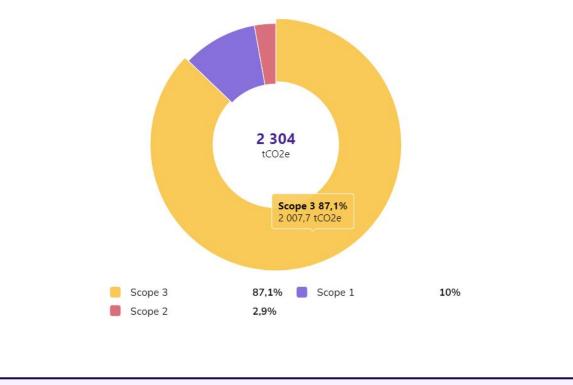
The Scopes are then broken down into 22 emissions items.







Carbon Footprint 2023 - Brussel Beer Project : View by scope(in tons of CO2e)



Methodology





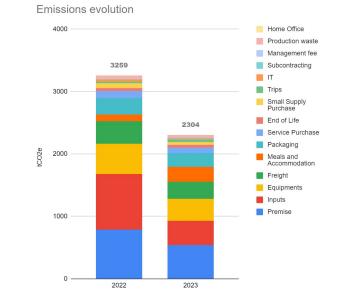




Total Footprint

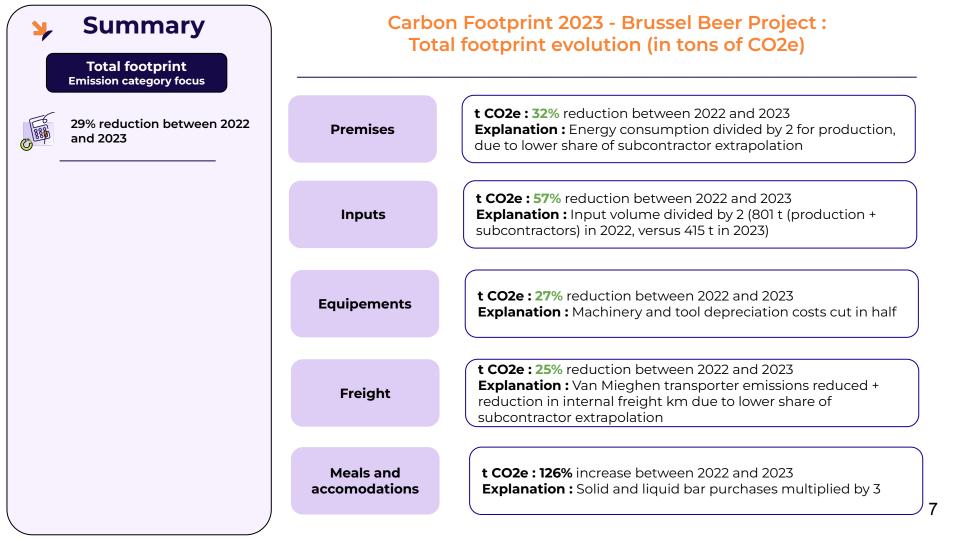
The variation graph shows the rates of change in absolute emissions between the two years.

Carbon Footprint 2023 - Brussel Beer Project : Total footprint (in tons of CO2e)



Emissions evolution







Benchmark Economic intensity

Economic intensity is the ratio of your CO2e emissions to your turnover for the reporting year.

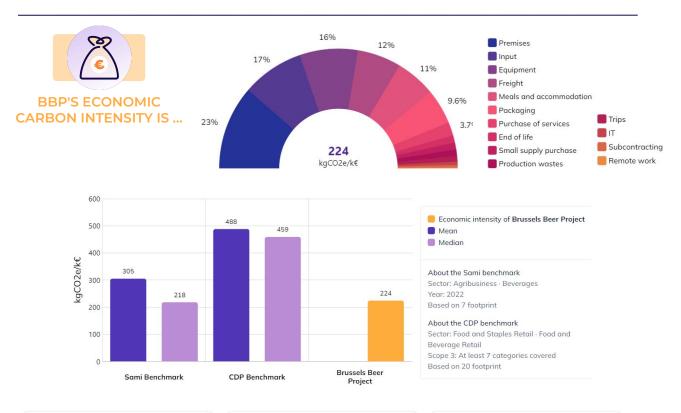
It enables us to compare your overall carbon performance with other companies in your sector, by cancelling out the sales effect.

The comparative data are taken from Sami's customer database and the Carbon Disclosure Project (CDP) for the specified sector.

This intensity is calculated for all positions.

Find out more about the CDP.

Carbon Footprint 2023 - Brussel Beer Project : Economic intensity (kg CO2e/k€ of sales)



Premises

6th on 8 footprints

Input 2th on 8 footprints Equipment 7th on 8 footprints

Benchmark Economic intensity

Economic intensity is the ratio of your CO2e emissions to your turnover for the reporting year.

It enables us to compare your overall carbon performance with other companies in your sector, by cancelling out the sales effect.

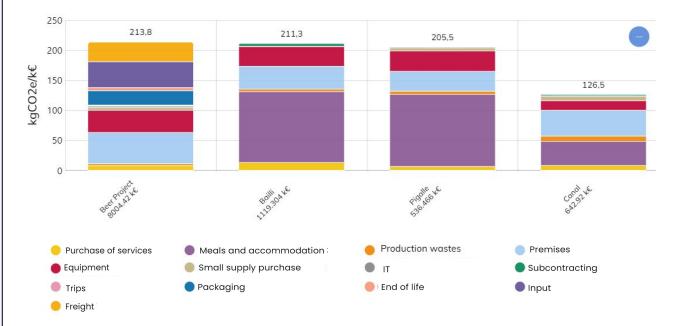
The comparative data are taken from Sami's customer database and the Carbon Disclosure Project (CDP) for the specified sector.

This intensity is calculated for all positions.

Find out more about the CDP.

Carbon Footprint 2023 - Brussel Beer Project : Economic intensity (kg CO2e/k€ of sales)

Economic intensity by entity (kgCO2e / k€ sales)



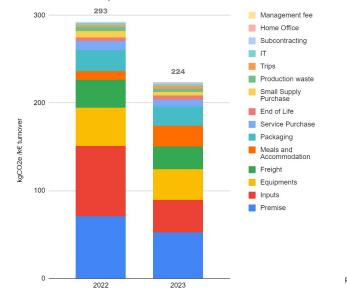
Benchmark Economic intensity

The graph on the left allows you to compare your carbon performance between the two years, cancelling out the effect of the variation in sales. For example, if your carbon intensity is lower, each euro of sales will have produced less CO2e on average. The breakdown by item allows you to identify the source of this change.

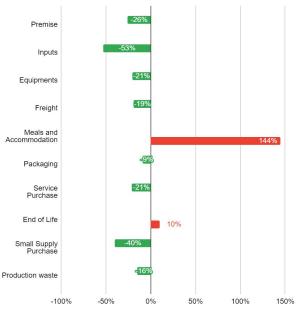
The graph on the right shows the rates of change in economic intensity between the two years, by emission item. It enables you to identify the items with the most significant rates of change.

Carbon Footprint 2023 - Brussel Beer Project : Economic intensity evolution (kg CO2e/k€ of sales)

Economic intensity evolution



Economic intensity evolution



Benchmark Employee intensity

Employee intensity is the ratio of emissions linked to your employees to the average workforce over the year. It therefore concerns only certain items: travel, meals, IT products, office and teleworking. The average workforce is measured in full-time equivalents (FTE).

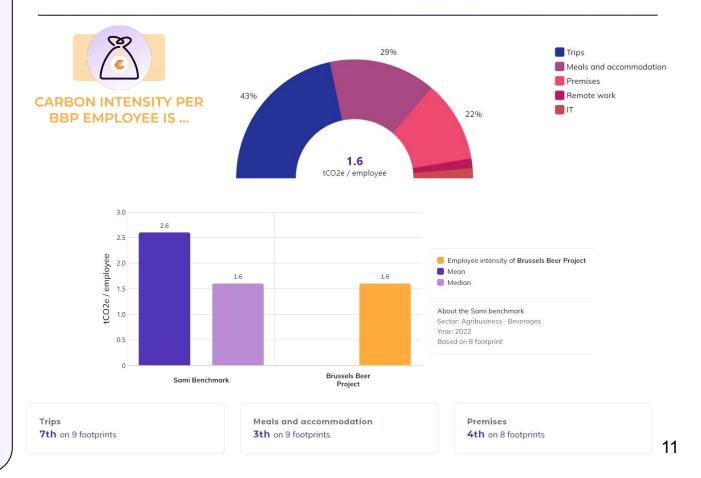
It enables you to compare your carbon performance in terms of employees with that of other companies, by cancelling out the effect of the difference in headcount.

The breakdown by position allows you to identify where this position comes from.

The comparative data is drawn from Sami's customer base across all sectors.

Find out more about PCG.

Carbon Footprint 2023 - Brussel Beer Project : HQ intensity (t CO2e/FTE)



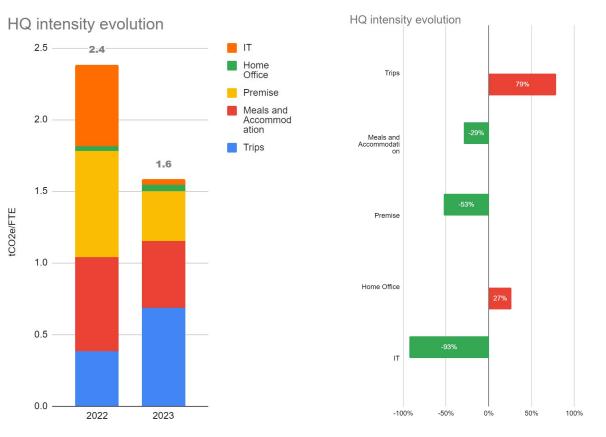
Benchmark Employee intensity

The carbon intensity presented in the following slide is broken down by emission category.

The graph on the left allows you to compare your carbon performance on the employee side between the two years, cancelling out the effect of headcount.

The graph on the right shows the rates of change in employee intensity between the two years. It enables you to identify the items with the most significant rates of change.

Carbon Footprint 2023 - Brussel Beer Project : HQ intensity evolution (t CO2e/FTE)



Benchmark Evolution summary

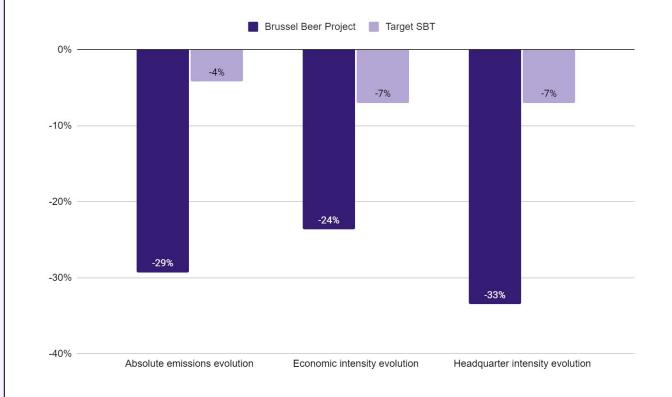
Here we compare the rates of change of each of your company's carbon footprint indicators with two pieces of data:

>Benchmark median: the average rate of change in indicators for all Sami customers who have carried out several carbon audits in two consecutive years.

> SBT target: the reduction targets proposed by the Science Based Target initiative, which transpose the objectives of the Paris agreements to the corporate level:

In absolute terms: -4% reduction per year (1.5°C trajectory) In intensity (GEVA): -7%. For employee intensity, this is the annual variation rate to reach 1tCO2e/FTE in 2050 for your company. (this is not an SBT target).

SYNTHESIS EVOLUTION Variation rate of the Brussel Beer Project indicators, between the years 2022 et 2023





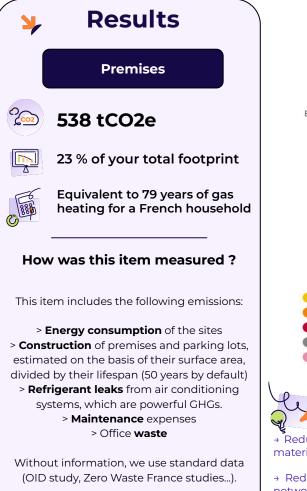
Production-related emissions

0

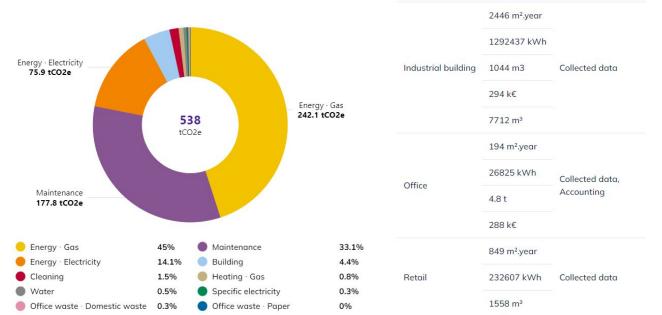
6

1857 tCO2e

81 %



Emission breakout(tCO2e)



SAMI CATEGORY

ACTIVITY DATA

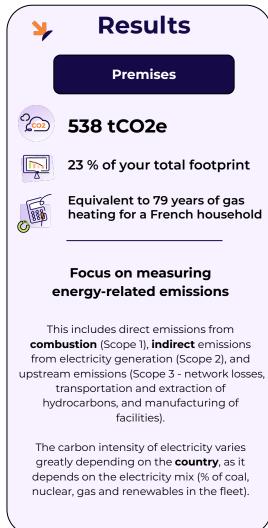
SOURCE(S)



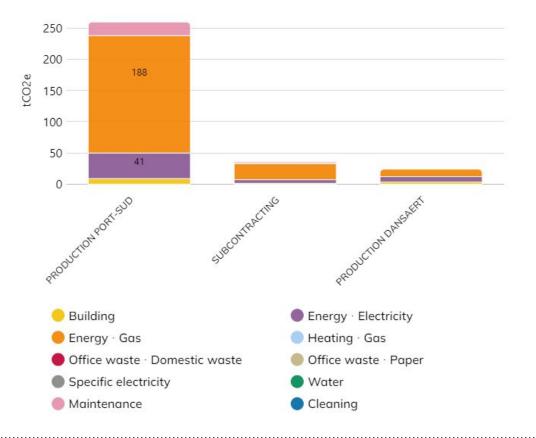
What are the solutions to mitigate the carbon impact of your premises?

→ Reduce the impact of construction: for future premises, plan to occupy eco-designed (RE2020 standard: construction materials, low-impact equipment) and optimized buildings (reduce occupied surfaces as much as possible);

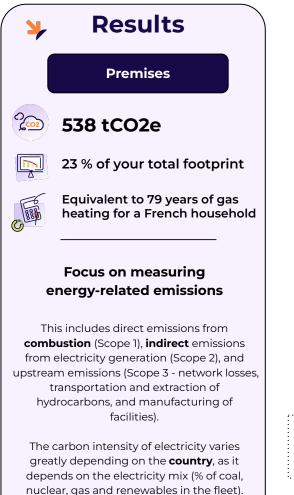
+ Reduce the impact of **building operations**: in particular for premises heated with gas, plan to connect to heating networks (allowing the use of non-fossil energy), give preference to premises with good insulation.



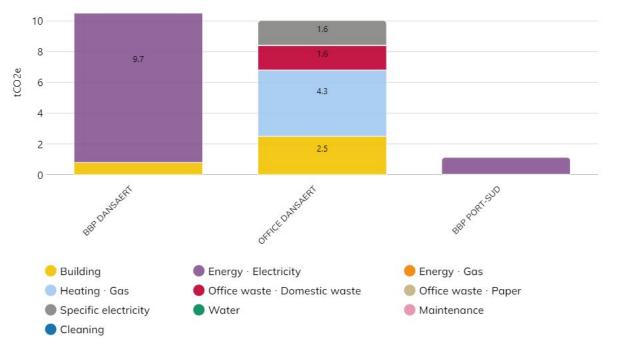
Emission breakout by premise (tCO2e)



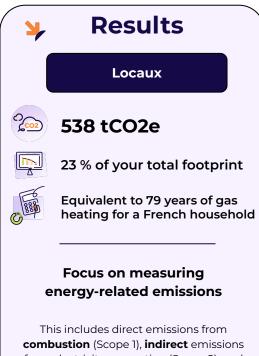
Emissions linked to subcontracted beer production (Anders and De Proef) have been recalculated on the basis of emissions linked to production at Port-Sud, in proportion to the quantity produced.



Emission breakout by premise (tCO2e)



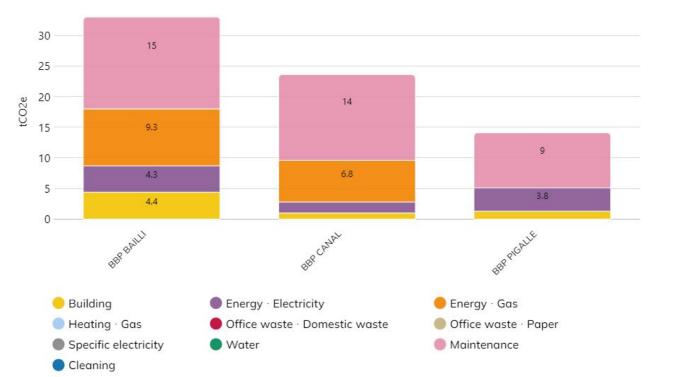
The fixed assets table also shows €546k of work and maintenance expenditure for the Beer Project entity. This expenditure is responsible for the emission of 106 tCO2e, to be divided between the various sites of the entity.

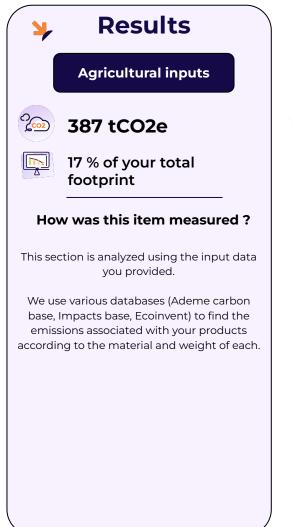


combustion (Scope 1), **indirect** emissions from electricity generation (Scope 2), and upstream emissions (Scope 3 - network losses, transportation and extraction of hydrocarbons, and manufacturing of facilities).

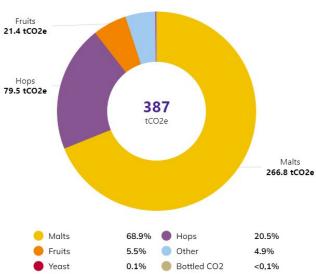
The carbon intensity of electricity varies greatly depending on the **country**, as it depends on the electricity mix (% of coal, nuclear, gas and renewables in the fleet).

Emission breakout by premise (tCO2e)

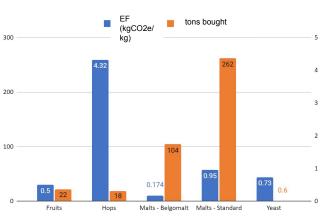


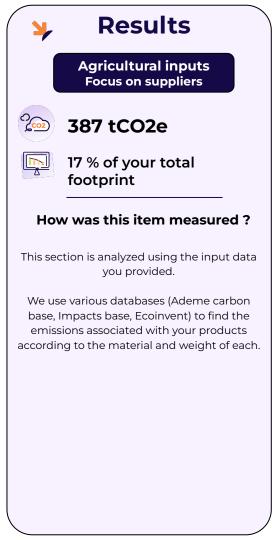


Total emissions by material (tCO2e)

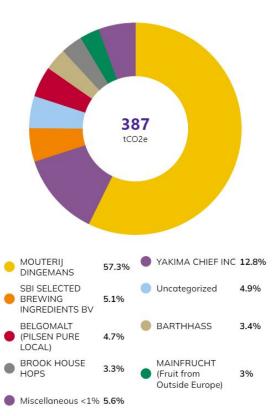




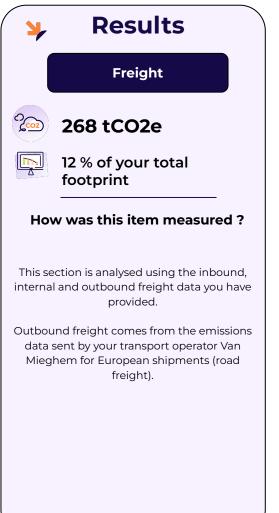




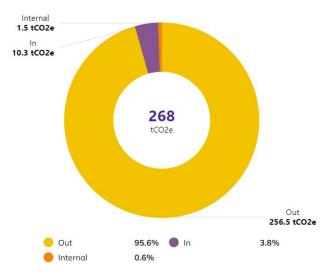
Total emissions by supplier (tCO2e)



SAMI CATEGORY	ACTIVITY DATA
MOUTERIJ DINGEMANS	233 t
YAKIMA CHIEF INC	11 t
SBI SELECTED BREWING INGREDIENTS BV	21 t
BELGOMALT (PILSEN PURE LOCAL)	104 t
BARTHHASS	3.1 t
BROOK HOUSE HOPS	3 t
MAINFRUCHT (Fruit from Outside Europe)	12 t

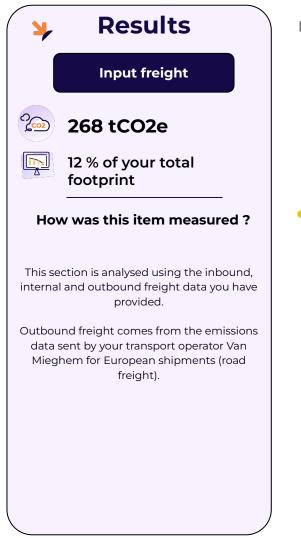


Emission breakdown by flow (tCO2e)



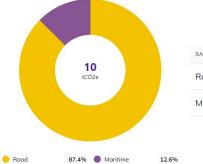
Out	7.3 t
In	176916 t.km
Internal	16230 t.km

Emissions from distribution (downstream freight) are taken directly from the declaration of GHG emissions provided by your haulier Van Mieghem. Reported emissions are down by around 35% compared with 2021/2022.

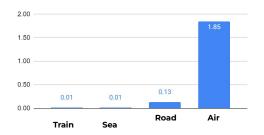


Inbound freight emissions by mode of transport

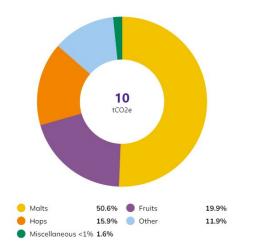
EF by mode of transport (kg CO2e/t.km)



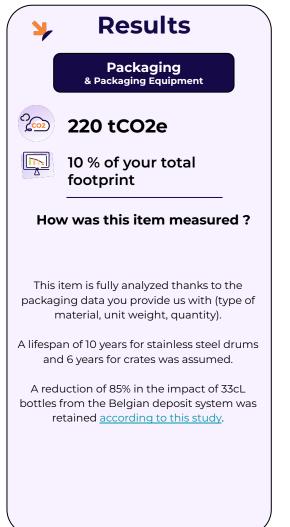




Inbound freight emissions by input



SAMI CATEGORY	ACTIVITY DATA
Malts	56545 t.km
Fruits	22290 t.km
Hops	82932 t.km
Other	13319 t.km
Bottled CO2	818 t.km
Uncategorized	716 t.km
Yeast	297 t.km

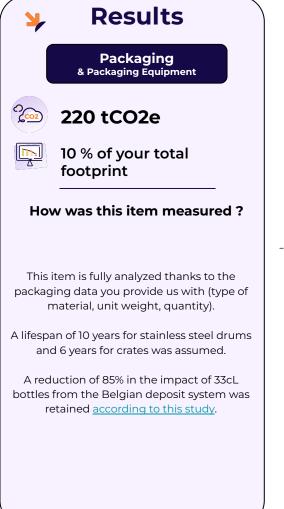


ONE-WAY KEYG 3.5 tCO2e BOTTLE (NEW) 31.4 tCO2e 220 BOTTLE (REUSABLE) 112,8 tCO2e tCO2e CAN 72,5 tCO2e BOTTLE (REUSABLE) CAN 32.9% 51 2% BOTTLE (NEW) 14.3% ONE-WAY KEYG 1.6%

Total primary packaging emissions

Total emissions from fixed assets





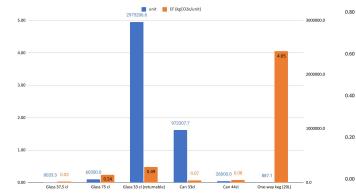
Packaging emissions per unit

Packaging emission by HL

0.80

0.40

HL EF (kgCO2e/L)



Packaging tons (t) by type of packaging

2022 tons (t) 2023 tons (t)

BOTTLE (NEW) ONE-WAY KEYG

CRATES

INOX KEG

800

600

400

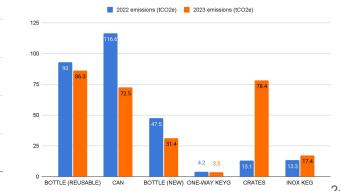
200

BOTTLE (REUSABLE)

34.8 23

CAN

Packaging emissions (tCO2e) by type of packaging



Glass 33 cl (returnable)

Can 33cl

Can 44cl

One-way keg (20L)

453

Glass 75 cl

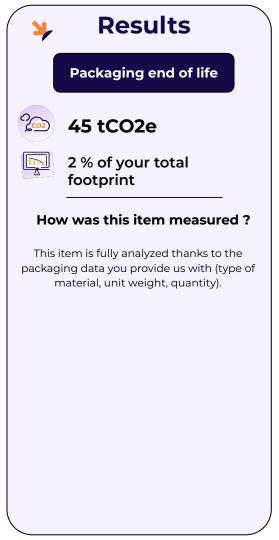
Glass 37.5 cl

10000

7500

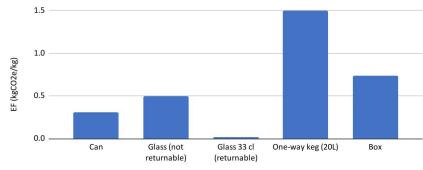
5000

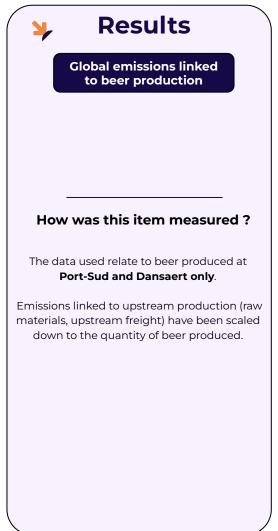
2500



Total emissions (tCO2e) Can 33cl 3,9 tCO2e Glass 75 cl 18 tCO2e Box 45 7,2 tCO2e tCO2e Glass 33 cl (returnable) 12,7 tCO2e Glass 75 cl 39.8% Glass 33 cl 28.2% (returnable) Box Can 33cl 8,7% 16% One-way keg (20L) 3,5% Glass 37,5 cl 2,6% Crown caps Can 44cl 0,3% 0,9%

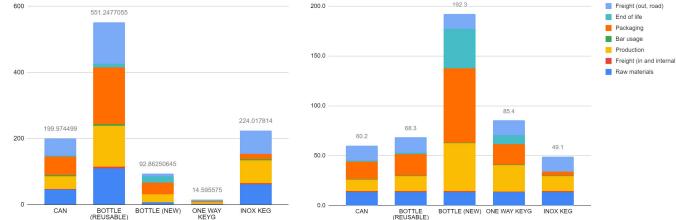
SAMI CATEGORY	ACTIVITY DATA
Glass 75 cl	36 t
Glass 33 cl (returnable)	708 t
Box	9.8 t
Can 33cl	13 t
One-way keg (20L)	1.1 t
Glass 37,5 cl	2.4 t
Crown caps	12 t
Can 44cl	0.39 t





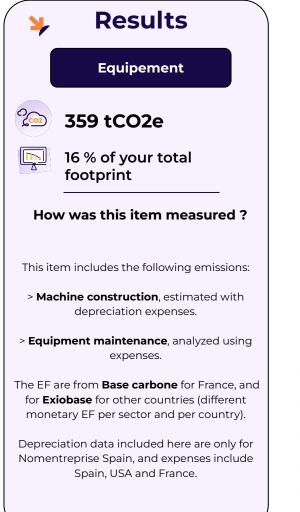
Total emissions (tCO2e)

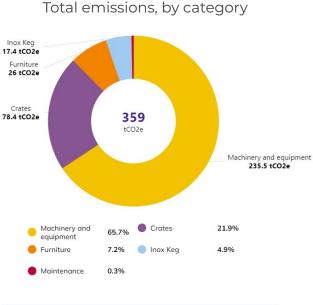
Relative emissions (kgCO2e/HL)



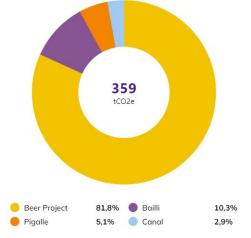
	Format distribution
Can	20%
Bottle (reusable)	49%
Bottle (new)	3%
One-way keg	1%
Inox keg	27%

		••••
The Ad	eme database on the food industry (Agribalyse) give	əs
an em	ssion factor of <u>112 kgCO2e/HL</u> for a "core market" bee	ər.



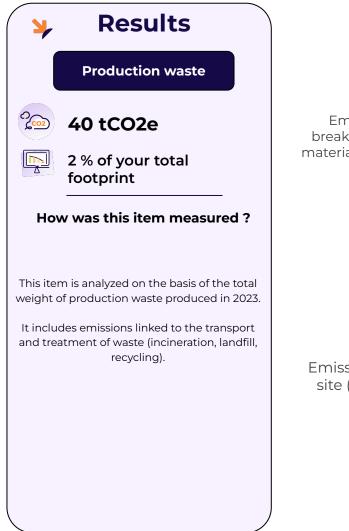


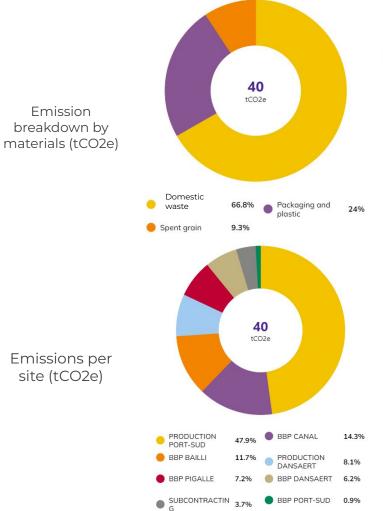
SAMI CATEGORY	ACTIVITY DATA
Machinery and equipment	341 k€
Crates	72 t
Furniture	45 k€
Inox Keg	79 t
Maintenance	5.6 k€



Total emissions, by entity

SAMI CATEGORY	ACTIVITY DATA
Poor Project	284 k€
Beer Project	151 t
Bailli	59 k€
Pigalle	34 k€
Canal	16 k€





SAMI CATEGORY	ACTIVITY DATA
omestic waste	75 t
Packaging and plastic	33 t
Spent grain	69163 t.km

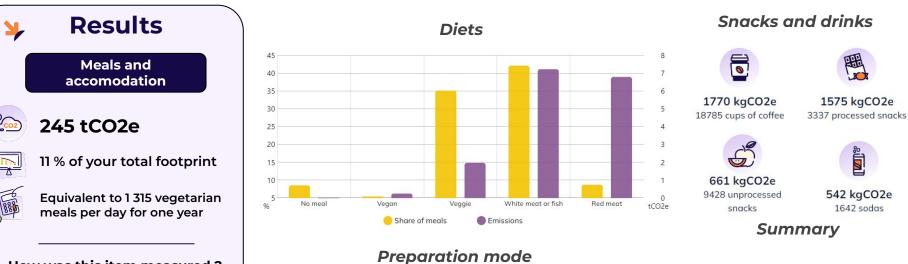
SAMI CATEGORY	ACTIVITY DATA
PRODUCTION PORT-SUD	46 t
PRODUCTION FORT-SUD	51960 t.km
BBP CANAL	17 t
BBP BAILLI	15 t
PRODUCTION DANSAERT	11 t
PRODUCTION DANSAERT	9900 t.km
BBP PIGALLE	9 t
BBP DANSAERT	7.6 t
SUBCONTRACTING	3.1 t
SOBCONTRACTING	7303 t.km
BBP PORT-SUD	2 t

Emissions from other purchases and employees

0

431 t CO2e

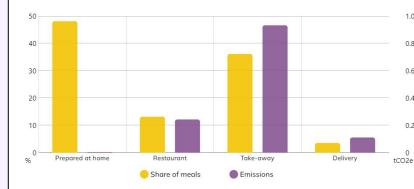
19 %





This item includes the following emissions: > Meals for employees during working hours (meal content + preparation method) > Snacks and drinks consumed > Accommodation (hotel nights) for employees on business trips

These data are taken from the employee questionnaire.



Catégory	Emissions (tCO2)
Catering purchases (FEC)	221
Snacks	4.6
Staff meals	17.4
Hosting	0.7
Total	245



To reduce the impact of accommodation and meals: make employees aware of the impact of high-carbon diets, reduce the impact of snacks (no water bottles, tea instead of coffee, etc.)

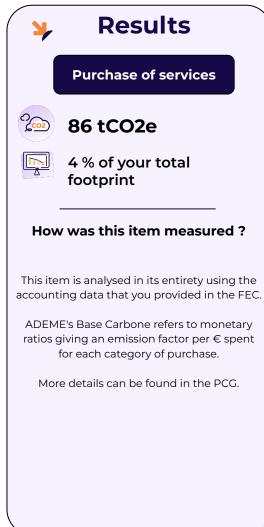
1.0

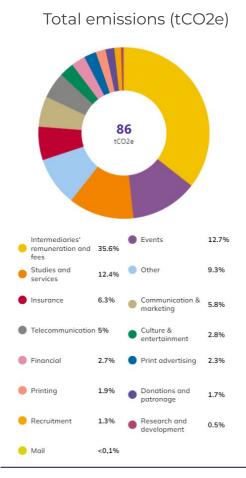
0.8

0.6

0.4

0.2

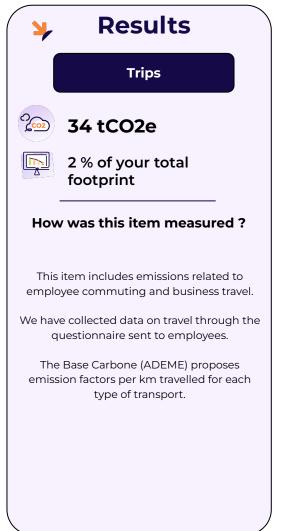




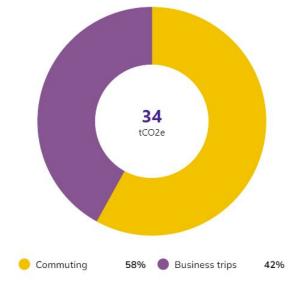
SAMI CATEGORY	ACTIVITY DATA
Intermediaries' remuneration and fees	276 k€
Events	64 k€
Studies and services	61 k€
Other	47 k€
Insurance	49 k€
Communication & marketing	23 k€
Telecommunication	25 k€
Culture & entertainment	11 k€
Financial	21 k€
Print advertising	11 k€
Printing	5.7 k€
Donations and patronage	8.4 k€
Recruitment	6.4 <mark>k€</mark>
Research and development	1.8 k€
Mail	0.01 k€



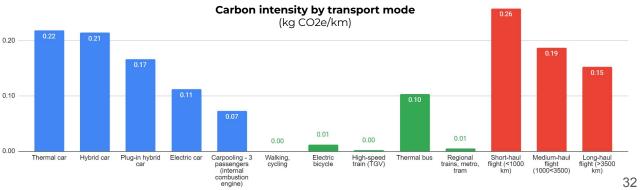
To reduce the impact of your purchases, you can make your suppliers aware of the importance of carrying out a carbon footprint and implement a responsible purchasing policy that will allow you to obtain the economic carbon intensity.

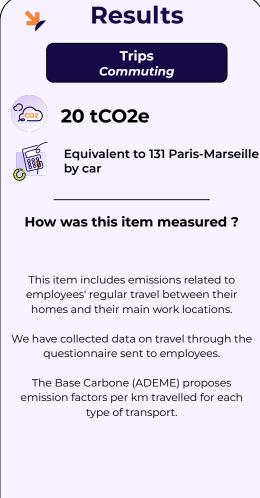


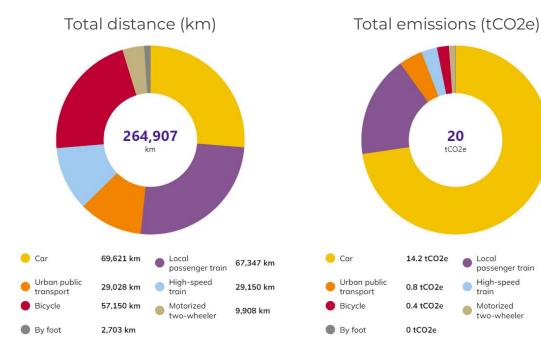
Total emissions (tCO2e)



SAMI CATEGORY	ACTIVITY DATA
Commuting	264907 km
Business trips	117980 km









43% of commuting done by car are less than 10 km.



Which represents **1.1 tCO2e**, or **7% of your** commuting done by car.

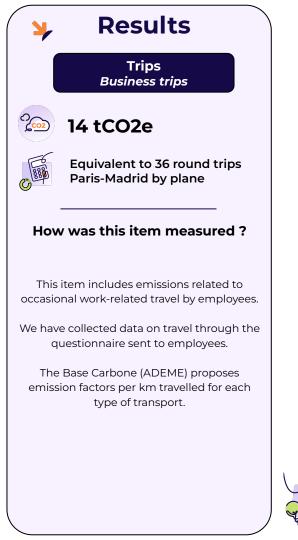
3.4 tCO2e

0.5 tCO2e

0.2 tCO2e

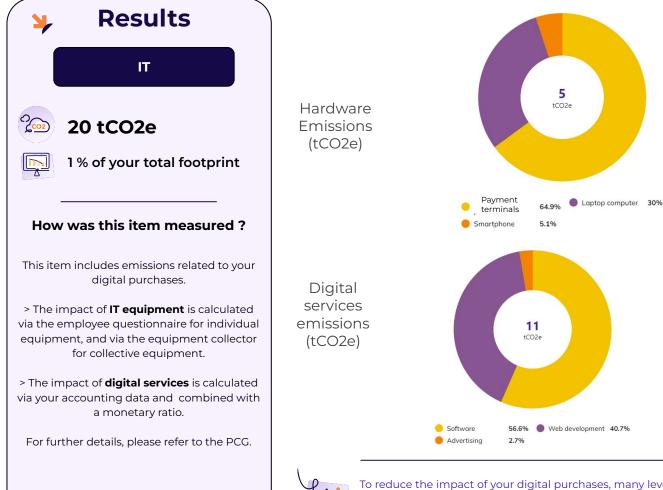


To reduce the impact of commuting: offer carpooling, develop a fleet of company bicycles, introduce a sustainable mobility package, equip parking lots with electric charging stations, etc.



To reduce the impact of business travel, a company can: regulate the use of airplanes and cars during business trips, train in eco-driving, electrify the fleet of company vehicles...

Total distance (km) Total emissions (tCO2e) 117,980 14 km tCO2e Car 59,491 km Car High-speed 12.3 tCO2e High-speed 53.674 km 1 tCO2e train train Plane Plane 4.815 km 0.9 tCO2e



ACTIVITY DATA
8.2 k€
37 units.year
15 units.year

SAMI CATEGORY ACTIVITY DATA Software 37 k€ Web development 18 k€ Advertising 1.7 k€



To reduce the impact of your digital purchases, many levers of action can be activated: buy reconditioned IT equipment rather than new, have your sites and applications hosted in France, eco-design your digital services....

Results IT Digital tools

4 tCO2e

How was this item measured ?

To calculate this item, we use the data from the digital collectors on the Sami app:

 Infrastructure (storage and compute servers), whose impact is calculated via transferred data, power consumption or capacities (vCPU, storage...)
 Social networks, based on visualization statistics and assumptions about storage and transferred data

> Websites, APIs and SaaS, based on transferred data, storage location, and statistics on the locations and terminals used to view them.

Conversion factors are from IEA and CISCO. Find more details in the PCG.



797 kgCO2e were emitted via consultations of your digital tools.



Storing data in data centers powered by renewable energy and with a high level of energy efficiency helps limit GHG emissions.



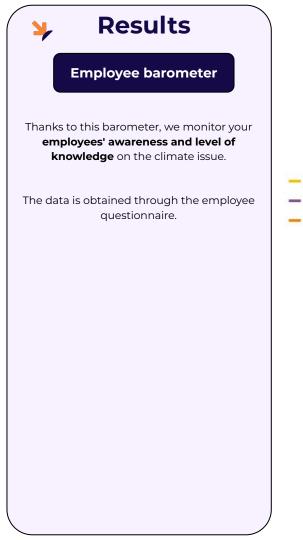
A rational use of digital applications and the training of teams in responsible digital technology (green code) allow your customers to reduce their CO2e emissions.



As analyzed above, equipment manufacturing is one of the biggest contributors to digital emissions: extending the life of equipment is decisive.

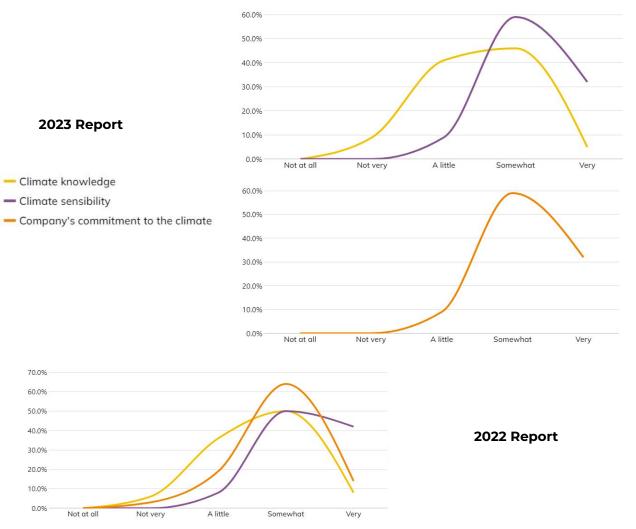


To reduce the impact of your digital consultations, you can: eco-design your sites and applications, optimize the hosting of your digital tools (in France, the energy mix is low carbon)...



70.0% 60.0% 50.0% 40.0%

30.0% 20.0% 10.0% 0.0%



Reduce

Reduce, but how?

Your company's footprint isn't much compared to Renault, Amazon or Facebook, but that doesn't mean you should downplay the importance of the room for action you have! In the face of the climate challenge, companies, governments and citizens **must each do their part.** To stay **below 2°C** and **respect the Paris agreements**, we still have a certain amount of CO2e that we can emit until **2050** on a global scale: this is our **global carbon budget**.

This budget is then disaggregated to the level of each country, each economic sector, and **each company**, which is assigned an **individual carbon budget**

"Doing your part" means committing to not exceeding your carbon budget! For this, every action counts!





There are then 4 steps:



Reduce

What's the Net Zero Initiative ?

In order to **limit the temperature increase to +1.5°C** compared to the pre-industrial period, climate science requires us to reach **a balance between global CO2 emissions and global CO2 removals by 2050**. This balance is called global carbon neutrality, or "net zero emissions".

To achieve **net zero**, the two levers to be used at the global and national levels are **reducing emissions and increasing carbon sinks.**

Climate actions typology



LOW CARBON CHOICE

Implement actions that will directly reduce your company's emissions.



For example, reduce your travel-related emissions!



LOW CARBON OFFER

To reduce the emissions of your value chain, your first lever of action is your customers.



Sale of decarbonated products and services, and financing of avoidance projects outside the value chain!



CARBON CONTRIBUTION

Support the decarbonization of other sectors outside your value chain.

Fund carbon projects that reduce emissions or sequester CO2.



CLIMATE AWARENESS

Make your stakeholders (customers, suppliers, employees...) aware of the climate issues.

Suggest to your suppliers to carry out a carbon assessment, improve your employees' knowledge of the climate.



The climate platform for your company





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