



European Association Summit Carbon report 2023

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Context

Context

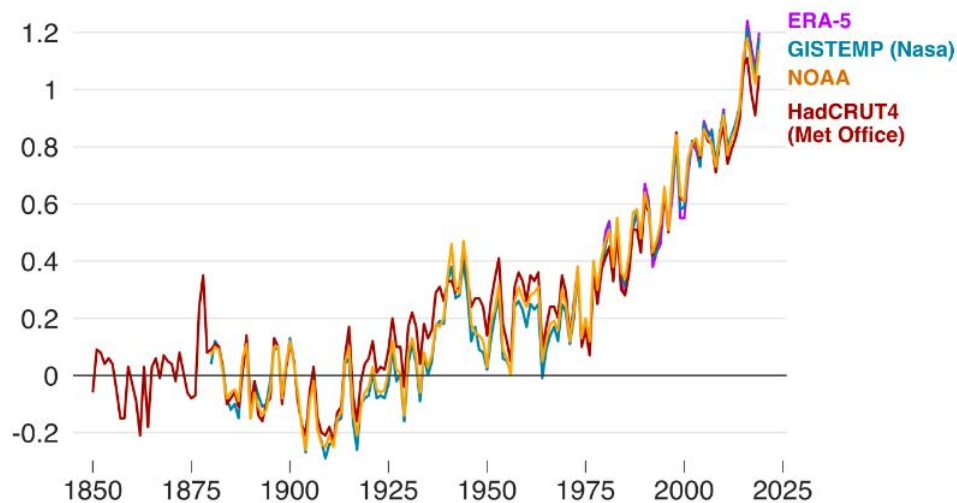
Temperatures have been steadily increasing over the last century

- The [Synthesis Report](#) of the IPCC (Intergovernmental Panel on Climate Change) published in March 2023 is very clear:

“Human activities, principally through emissions of greenhouse gases, **have unequivocally caused global warming**, with global surface temperature reaching 1.1°C above 1850-1900 in 2011-2020.”
- It is “near certain that **2023 will be the warmest year on record**” with around +1.4°C. ([Copernicus](#))

Temperature rise since 1850

Global mean temperature change from pre-industrial levels, °C



Source: Met Office

BBC

Context

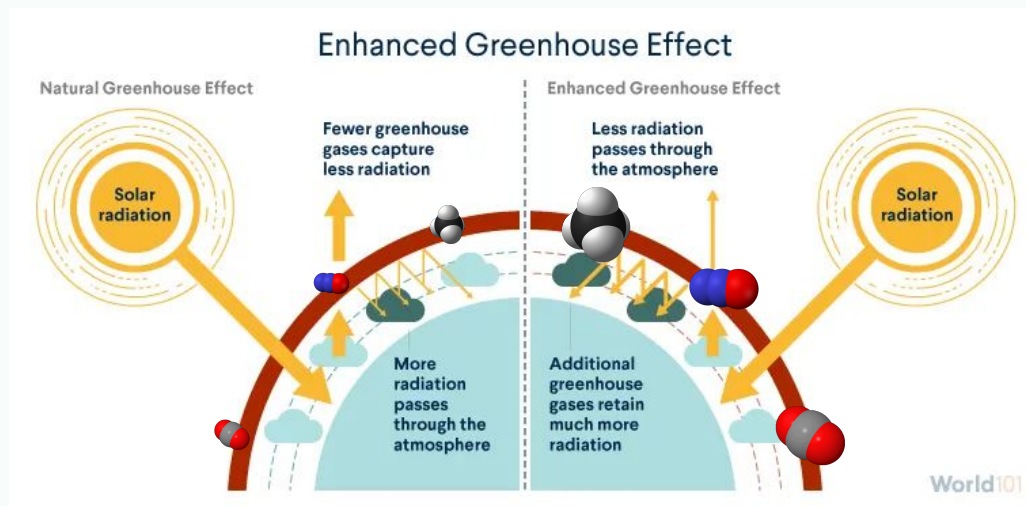
The increase in temperature is closely related to Greenhouse Gases (GhG) and the Greenhouse Effect

Natural Greenhouse Effect

The greenhouse effect is a natural phenomenon present since time immemorial with GhGs that allowed the average global temperature to be maintained around 15°C.

Enhanced Greenhouse Effect

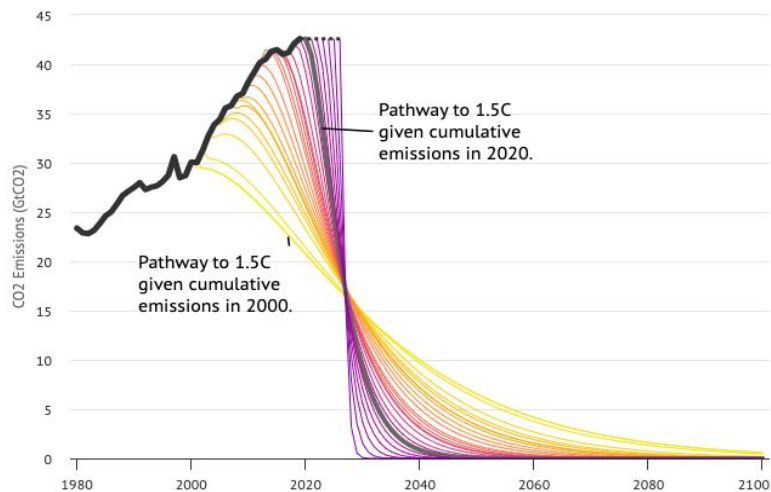
Human activities generate new sources of GhGs, known as industrial or **anthropogenic greenhouse gases**. Emissions of these anthropogenic gases accentuate the greenhouse effect, causing the sadly known global warming.



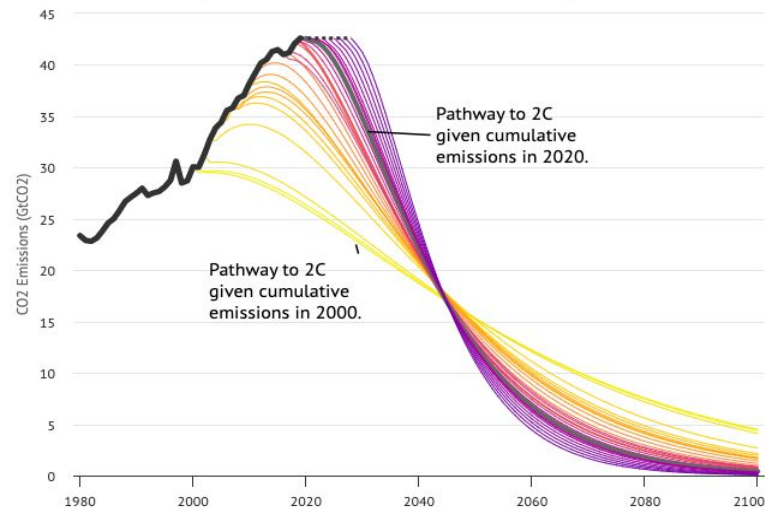
Context

GhG emissions must therefore be curbed, and the later the action, the more drastic it will have to be

Limiting warming to 1.5C is increasingly difficult without large-scale negative emissions



The later emissions peak the harder it is to limit warming below 2C



Source: Historical CO2 emissions from the Global Carbon Project. Below-2C carbon budgets based on the IPCC SR15 report. Original figure from Robbie Andrews. Chart by Carbon Brief using Highcharts.]

Context

The role of organisations is now to take action at their own level to measure and reduce their GHG emissions

The regulatory and market context drives companies to measure their emissions



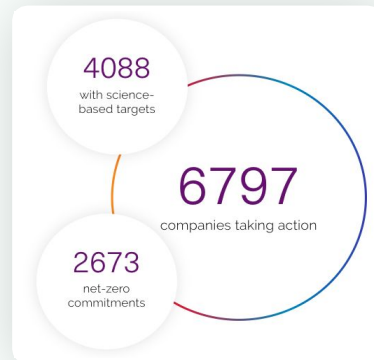
The upcoming **Corporate Sustainability Reporting Directive** will require companies to measure and report their impact on the environment.



Consumers and investors are becoming increasingly demanding when it comes to **sustainability information** and **low-carbon** products.

Companies are starting to make substantial commitments to tackle climate change

The Science Based Targets (SBTi) initiative has become the standard for setting emission reduction targets. Companies around the world work with them.





Methodology

Context

Global approach to the project

UNDERSTAND

ACT

ENGAGE



Mapping and calculation of value chain **emissions** to create a tailor-made carbon **report**



Definition of **reduction** targets and elaboration of customised reduction **scenarios**



Transparent communication and engagement of **all stakeholders** in the climate strategy

Methodology

Greenhouse Gas (GhG) Protocol



GREENHOUSE
GAS PROTOCOL

Tapio's approach follows the **Greenhouse Gas Protocol** which is the most widely used international accounting framework for understanding, quantifying and managing GhG emissions.



The **GhG Protocol** is a multi-stakeholder partnership of companies, non-governmental organisations (NGOs), governments and other parties brought together by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). It is important to note that the GhG Protocol is compliant with other greenhouse gas accounting standards such as ISO 14064 or ADEME.



The **Carbon Footprint** according to the GhG Protocol is:

- A standard of excellence in terms of greenhouse gas (GhG) accounting: its objective is to carry out an exhaustive evaluation of all the greenhouse gas emissions generated by the activities of an organisation or a territory.
- An environmental management tool, fulfilling a role of guide and support for organisations in the context of their energy-climate transition approaches.

Methodology

Greenhouse Gas (GhG) Protocol and boundaries

1. ORGANISATIONAL BOUNDARIES

The organisational boundaries gather information on **which entities (main company, subsidiaries, ...) need to be accounted in the carbon report and how to account for them.**

For entities that are not directly part of the main company (joint venture, leases, shared facilities,...), two main approaches are available to study whether to include them or not in the boundaries of the study:

- **The equity share approach:** the organisation consolidates the facilities' emissions to the extent of its equity stake in them.
- **The control approach** is divided in two types: **financial control** and **operational control**.

2. OPERATIONAL BOUNDARIES

The operational boundaries define the exact emission sources that need to be accounted in the assessment.

- **Direct emissions** come from fixed and mobile GhG sources, controlled by the legal entity/organisation.
- **Indirect emissions** are GhG emissions resulting from the activities of the legal entity/organisation but coming from GhG sources controlled by other entities.



More information is available on the boundaries of this assessment in the section “Boundaries and assumptions”.

Methodology

GhG classification according to the GhG Protocol



Scope 1: Direct emissions

Emissions from sources owned or controlled by the organisation. Mainly due to the combustion of fossil fuels for heating or company vehicles.



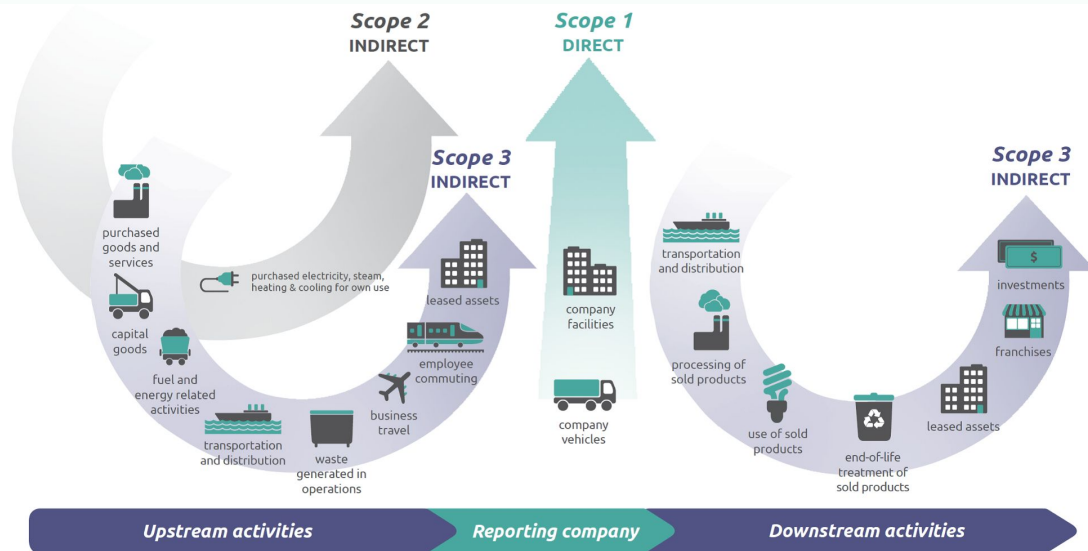
Scope 2: Indirect emissions

Emissions from the production of electricity, heat or steam imported for the organisation's activities.



Scope 3: Other indirect emissions

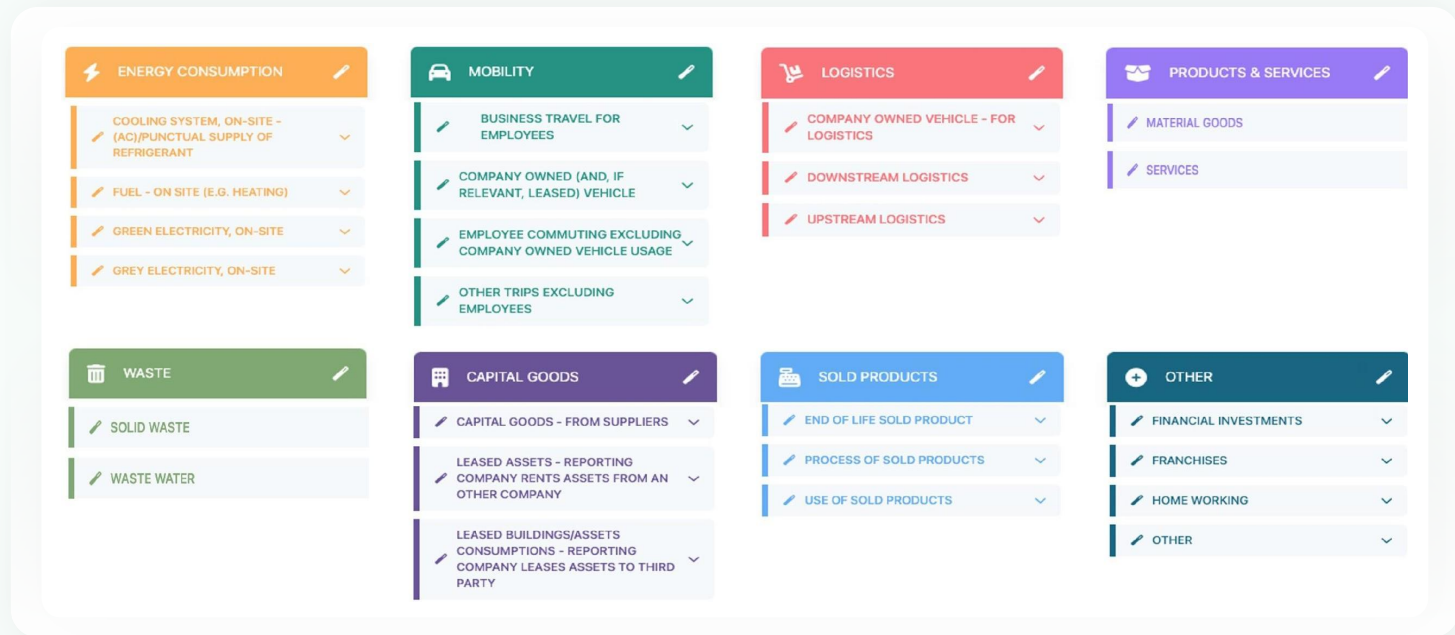
All other emissions indirectly produced by the organisation's value chain, such as the purchase of products and services, employee travel, logistics, waste, ...



Methodology

Tapio's specific classification in emission drivers

To simplify the understanding and visualisation of carbon reports, Tapio has created **8 “emissions drivers”** that regroup emissions sources based on common attributes and similarity of potential impact reduction levers.



Methodology

Data collection process and accuracy

HOW IS THE DATA COLLECTED?

- 1 It starts with the identification of key emission sources for the company and their categorisation in the drivers.
- 2 The data is then collected based on, for example:
 - Invoices for energy and water consumption.
 - Internal surveys for commuting.

WHAT DATA SHOULD BE USED TO IMPROVE ACCURACY?

- 1 **Different information** can be used to model the same emission source (e.g., electricity can be modeled through the kWh purchased, monetary amount, ...).
- 2 In general, the selection of data closest to the **physical measurements** will improve the reliability of the results (e.g. using kWh for electricity will be more precise than using €).

Estimations can be made but they will increase the uncertainty

Standardised uncertainty on the data

UNCERTAINTY ON THE ACTIVITY DATA

UNCERTAINTY

Direct internal data (invoices or meters)	5%
Internal data processed (e.g. conversion)	10%
Internal data obtained with some assumptions	20%
Precise internal data not available, estimated data	50%
Internal data not available, data obtained on the basis of a benchmark	80%

Methodology

General calculation principles

Calculations

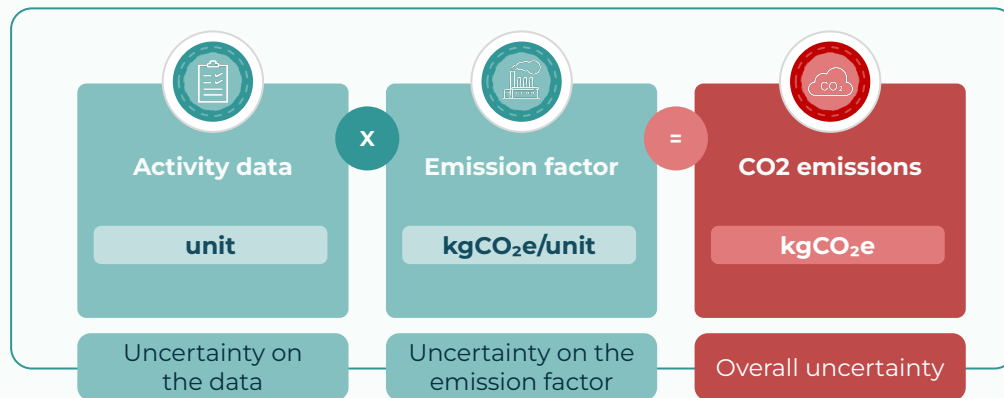
For each emission source, emissions are then calculated by multiplying an activity data (physical or financial) by an Emission Factor from reference databases.

These emissions are then added together, to finally obtain the total amount of emissions per scope/driver.

To be noted that the results are not absolute and the uncertainty of the results is also calculated.

Handling uncertainties

- The uncertainties related to the **activity data** are provided by the user of Tapio's tool according to the quality of the data.
- The uncertainties related to the **emission factors** (UFE) are directly defined by the GhG protocol methodology.





Boundaries and main assumptions

Boundaries and main assumptions

Organisational perimeter

By defining the sites, installations and skills taken into account in the carbon report, the **organisational perimeter** represents the physical boundaries in which European Association Summit measures their yearly GhG emissions.

Under the operational approach, European Association Summit accounts for 100% of the GhG emissions from operations over which it has operational control.



The physical boundaries taken into account for the **2023 carbon footprint assessment** include the activities of the European Association Summit event :

- Before the event
- During the event

Boundaries and main assumptions

Operational perimeter

The sources **directly emitted** within the organisational perimeter (previous page) are computed in **Scope 1**.

The sources of **indirect emissions related to electricity** (and energy input) within the organisational perimeter are included in **Scope 2**. Electricity consumption emissions being calculated on a **location**-based approach.

Emission sources related to *European Association Summit's* event but whose emissions do not occur within the organisational perimeter are included in **Scope 3**.



For the Capital Goods, **Tapio** aligns with the GHG methodology and so does not amortise all immobilisations. Therefore, only capital goods purchased during the year of the reporting period are taken into consideration in this report.

Scopes	Sources of emissions
Scope 1	• Stationary combustion • Mobile combustion • Refrigerant leakage
Scope 2	• Electricity • District heating • District cooling
Scope 3	• Business travels • Employee commuting • Purchased goods and services • IT equipment & cloud services • Waste • ... (see slide 10)

Boundaries and main assumptions

Operational perimeter

Main exclusion:

	Driver	Exclusions	Explanation	Expected impact on total emissions
	Energy Consumption & Mobility	Energy consumption linked to employees upstream activities	The subject is not monitored precisely internally and therefore does not allow for accurate inclusion (office and home consumptions).	Low, as the employees involved in the EAS are working on other projects at the same time, the proportion of their energy consumption linked to this event is therefore minimal.

Apart from this exclusion, **all categories required by the GhG Protocol for the scope 1/2/3 were included in the assessment.**

Boundaries and main assumptions

What were the main assumptions that were taken? (1/2)

	Driver	Assumptions on activity data
	Energy consumption	• Gas and electricity consumption: they were not precisely monitored and have therefore been modelled using surface emissions factors. Surfaces have been recalculated to correspond to the duration of use for the event (two days). • Heating system: As no data was available on which heating system fuel is used in the venue, it was supposed that natural gas is used. • Air-conditioning system: no air-conditioning systems were used during the event.
	Mobility	• Employees commuting (upstream): Commuting for the 8 employees involved in the event was estimated based on those hypothesis: • Three months' work dedicated to the EAS event. • Ten days of homeworking were considered for all employees. • If two public means of transport are given, the most emitting public transport system is considered (conservative assumption). • Visitors and employees mobility on the day of the event: These data also include employee (upstream and during the event) and participant mobility, as well as business travels. It was not possible to break down the data by section. The assumptions used to calculate the data were not provided.
	Products & Services	• Products: Tap water consumption has been estimated on the basis of average consumption per person per day. • Services: Logistics related to equipment rented for the event have been taken into account by the amount paid for the outsourced service.

Boundaries and main assumptions

What were the main assumptions that were taken? (2/2)

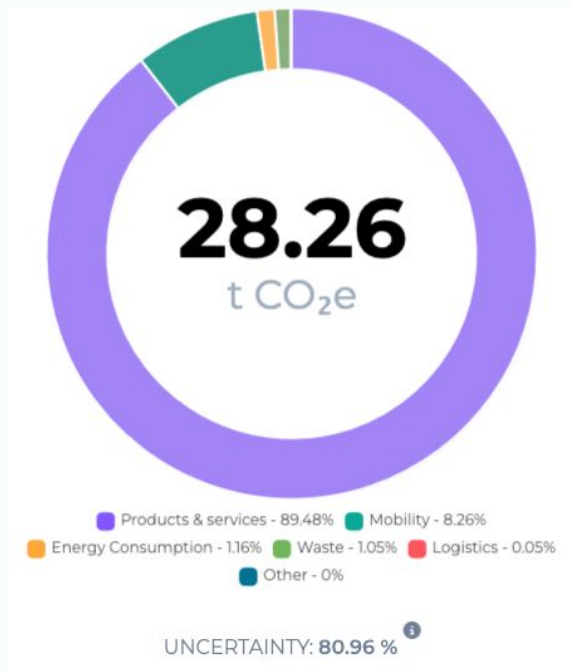
	Driver	Assumptions on activity data
	Waste	• Solid waste: Waste generated by the participants during the event has been estimated on the basis of average quantity of waste generated per person per day. • Waste water: all the water used was assumed to end up as waste water (see products & services).
	Logistics	• Logistics: As no data was available on event logistics, assumptions were made to account for logistics (distance and weight of the goods). As the weight was insignificant, only the travelled distance was accounted for (Travels mainly related to the delivery of equipment from our offices to the venue).
	Capital goods	• Leased assets: The furniture (chairs and table) was rented on site and was already available. No additional transport was required for this (only depreciation of material). As the time in use is minimal and it is not known whether these goods were purchased during the reporting year, they have not been taken into account.



Carbon report

Carbon report

Total carbon footprint by drivers in 2023



Total carbon footprint of European Association Summit by drivers

Main observations:

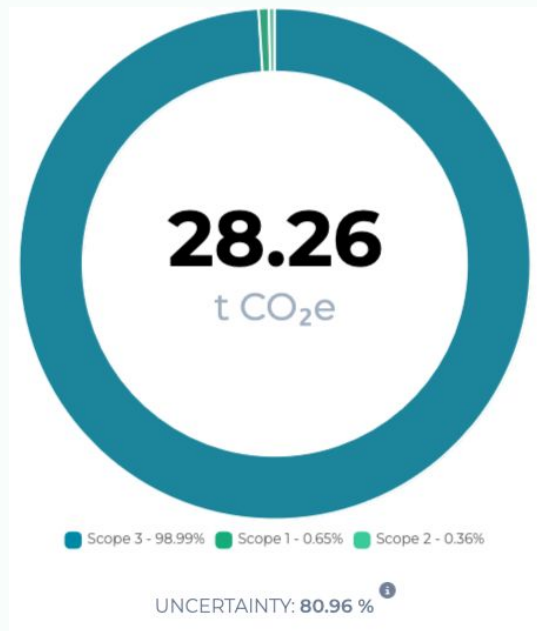
- The drivers that contribute the most to the impacts are **Products & Services** and **Mobility**. These three drivers are examined in more detail in the following slides.
- The other drivers each contribute to less than 5% of the results.

Results in intensity:

Participant intensity	Employee intensity
0,19 tCO ₂ e/participant	1,4 tCO ₂ e/employee

Carbon report

Total carbon footprint by scopes (GhG Protocol) in 2023



Total carbon footprint of European Association Summit by scopes

Main observations:

- **Scope 3:** emissions from European Association Summit's scope 3 (supply chain) account for the **largest part of the results**.
 - According to the Science Based Targets initiative, this is quite normal as scope 3 generally represents more than 70% of total emissions of a company or event.
- **Scope 1:** emissions from European Association Summit's scope 1 represent a **minimal share** of the results. These emissions are mostly linked to the gas consumption of the venue used for the event (less than 1%).
- **Scope 2:** emissions from European Association Summit's scope 2 (electricity consumption) **do not have a significant impact** on European Association Summit as a whole (less than 1%).

Carbon report

Top 7 emission sources in 2023

Source	Site	t CO ₂ e	%	Main step	Scope
Catering	EAS	17.7	62.64 %	Products & s...	Scope 3
Photographe	EAS	2.63	9.32 %	Products & s...	Scope 3
Audio visuel	EAS	2.29	8.09 %	Products & s...	Scope 3
Panneaux d'affichage	EAS	2.09	7.39 %	Products & s...	Scope 3
Avion	EAS	1.64	5.79 %	Mobility	Scope 3
Déchets solides	EAS	0.29	1.04 %	Waste	Scope 3
Matériel papeterie	EAS	0.29	1.03 %	Products & s...	Scope 3

Top seven emission sources across drivers
 (the colours are linked to the uncertainty, more details are available in slides 29/30)

Carbon report

What does it represent?

Going a step further in terms of comparison is useful to understand what *European Association Summit's* total amount of carbon emissions represents in day-to-day, tangible situations.



15.84

Round trips BRU to NY by plane



17.32

Years of an average alimentation



1.77

Belgian citizens yearly emissions



Carbon report

Focus on Products & Services

In 2023, Products & Services represents:

- In 89,48% of the total emissions of the European Association Summit
- 24,284 tCO₂e
- and is equivalent to **14,88 years of an average alimentation**

The most significant emissions sources are listed below:

1 Material Goods

Most of the emissions from this category come from:

- The purchase of **food for the catering of the event (17.7 k€ - 62.64%** of the total emissions).
- **Display panels (2.32 k€ - 7.39%)**.

Note: the emissions are not directly proportional to the expenses as they do not relate to the same kinds of activities.

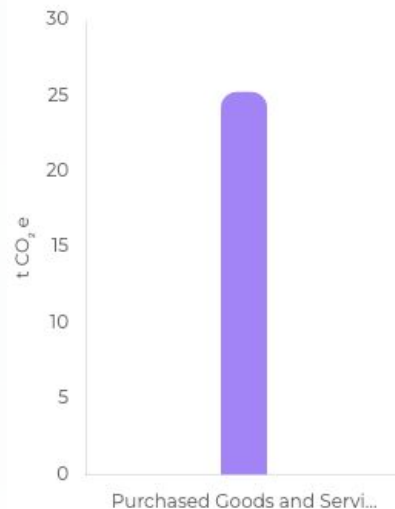
2 Services

Services are less significant and the most important source is the purchase of from this category come from:

- Photographer services (**8.495 k€ - 9.32%**).
- Audio-visual material (**5.7125 k€ - 8.09%**).

PRODUCTS & SERVICES

PRODUCTS & SERVICES: **89.48 %**





Carbon report

Focus on Mobility

In 2023, Mobility represents:

- 8,26 % of the total emissions of European Association Summit
- 2,33 tCO₂e
- and is equivalent to **1.31 round trips Brussels - New-York by plane**

The most significant emissions sources are listed below:

1 Other - travels made for the event

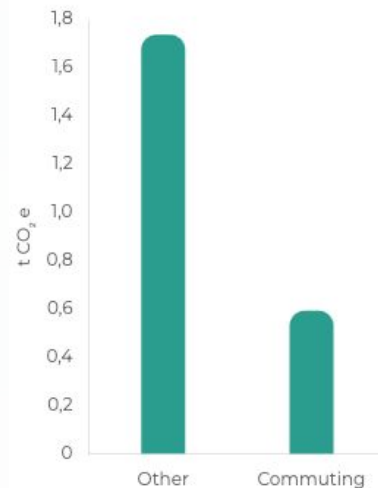
This category includes all travel to and from the event (participants, speakers or employees). There were 150 participants and 20 employees on the day of the event.

2 Commuting of the employees (upstream)

The commuting of the eight employees was accounted for in the carbon report.

MOBILITY

MOBILITY: **8.26 %**





Carbon report

Focus on Mobility

MOBILITY





Limits and areas of improvement of the analysis

Limits and areas of improvement of the analysis

Data quality assessment of the results per driver



Main observations on the data used in the analysis:

- The most impacting driver (**Products & Services**) is also linked to a high uncertainty. Efforts should be made to **increase the data quality of this drivers** in a future assessment (see following slides or appendix).
- The drivers Waste, Logistics, Mobility and Energy show a high uncertainty, however their relative weight on the results is lower.



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