



CARBON FOOTPRINT – GBTA Brussels 2022

December 2022

Summary

- 1. The carbon footprint of GBTA Brussels 2022**
- 2. Reduction of following editions' carbon footprints**

1) The carbon footprint of GBTA Brussels 2022

GBTA Brussels 2022

City : Brussels

Location : The Square

Number of participants : 883

Number of days : 3 days

Season : Autumn

GBTA Brussels 2022

Carbon footprint : 699 tons of CO₂e (tCO₂e)

That is the equivalent of : **80** round-the-world trips in an average European thermal car

Or **225** years of heating for an average European house

Or **306** tons of paper used

Or **331** Paris-NY round-trip flights

Which translates to : 0,79 tCO₂e per participant

Calculating the carbon footprint involves making assumptions and manipulating data with approximations.

A result should therefore be taken as an order of magnitude with an uncertainty and not an exact figure.

The more accuracy there is in the data provided, the more accurate the result and the lower the uncertainty will be.

GBTA Brussels 2022 carbon footprint



Carbon footprint of the event - PHYSICAL	Emissions in tCO ₂ e	Impact by source (%)
Dedicated man-days (organisation/set up off and on-site)	140,59	20,12%
Staff transportation (CGF & exhibitors)	17,21	2,46%
Transportation of participants (roundtrip)	483,31	69,18%
Transportation of the participants during the event	0,00	0,00%
Freight (equipment & consumables)	8,24	1,18%
Equipment and stands	5,76	0,82%
Energy (heat, cooling, electricity)	10,98	1,57%
Catering	4,63	0,66%
Accommodation	19,10	2,73%
Goodies	4,45	0,64%
Waste	3,34	0,48%

PHYSICAL - Total :	697,60	tCO₂e
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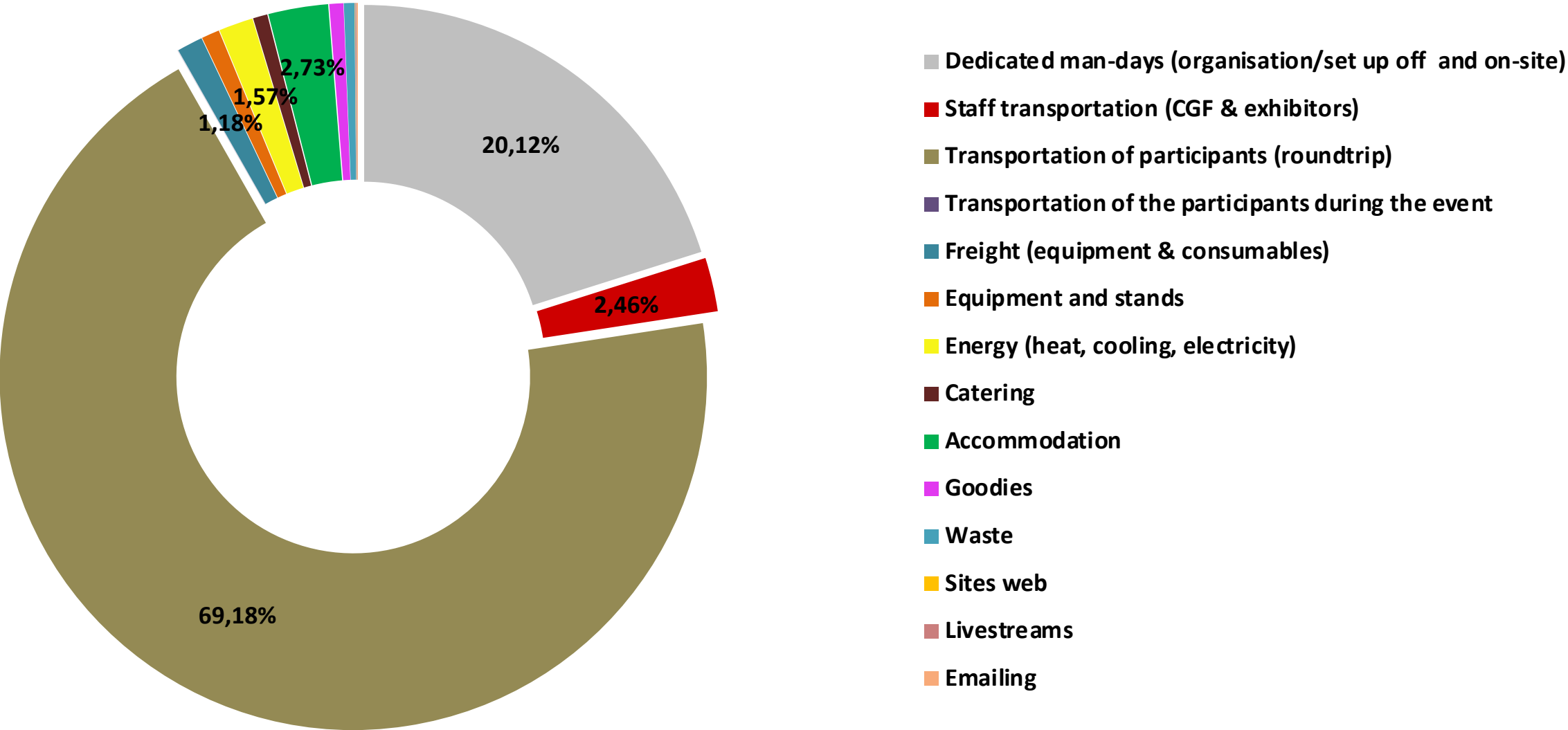
Carbon footprint per participant - PHYSICAL	791	kgCO₂e/participant
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Carbon footprint of the event - DIGITAL	Emissions in tCO ₂ e	Impact by source (%)
Websites	0,100	0,014%
Livestreams	0,200	0,029%
Social networks	0,200	0,029%
Emailing	0,500	0,072%

DIGITAL - Total :	1,00	tCO₂e
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Carbon footprint per participant - DIGITAL	1,1	kgCO₂e/participant
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Distribution of GHG emissions related to the event



Which flows and emission categories should be included in an event's carbon footprint?

1) Responsibility

Integrate the flows for which you are responsible (they are easier to manage)

2) Dependency

Integrate the flows your event depends on (they are harder to manage)

One question to ask yourself : “Is my event unchanged if I remove this flow ?”

GBTA Brussels 2022 – w/o pax transportation and man-days

Carbon footprint : 75 tons of CO₂e (tCO₂e)

That is the equivalent of : **9** round-the-world trips in an average European thermal car

Or **24** years of heating for an average European house

Or **33** tons of paper used

Or **36** Paris-NY round-trip flights

Which translates to : 0,085 tCO₂e per participant

Calculating the carbon footprint involves making assumptions and manipulating data with approximations.

A result should therefore be taken as an order of magnitude with an uncertainty and not an exact figure.

The more accuracy there is in the data provided, the more accurate the result and the lower the uncertainty will be.

Biggest emission categories (5%+ of total emissions)

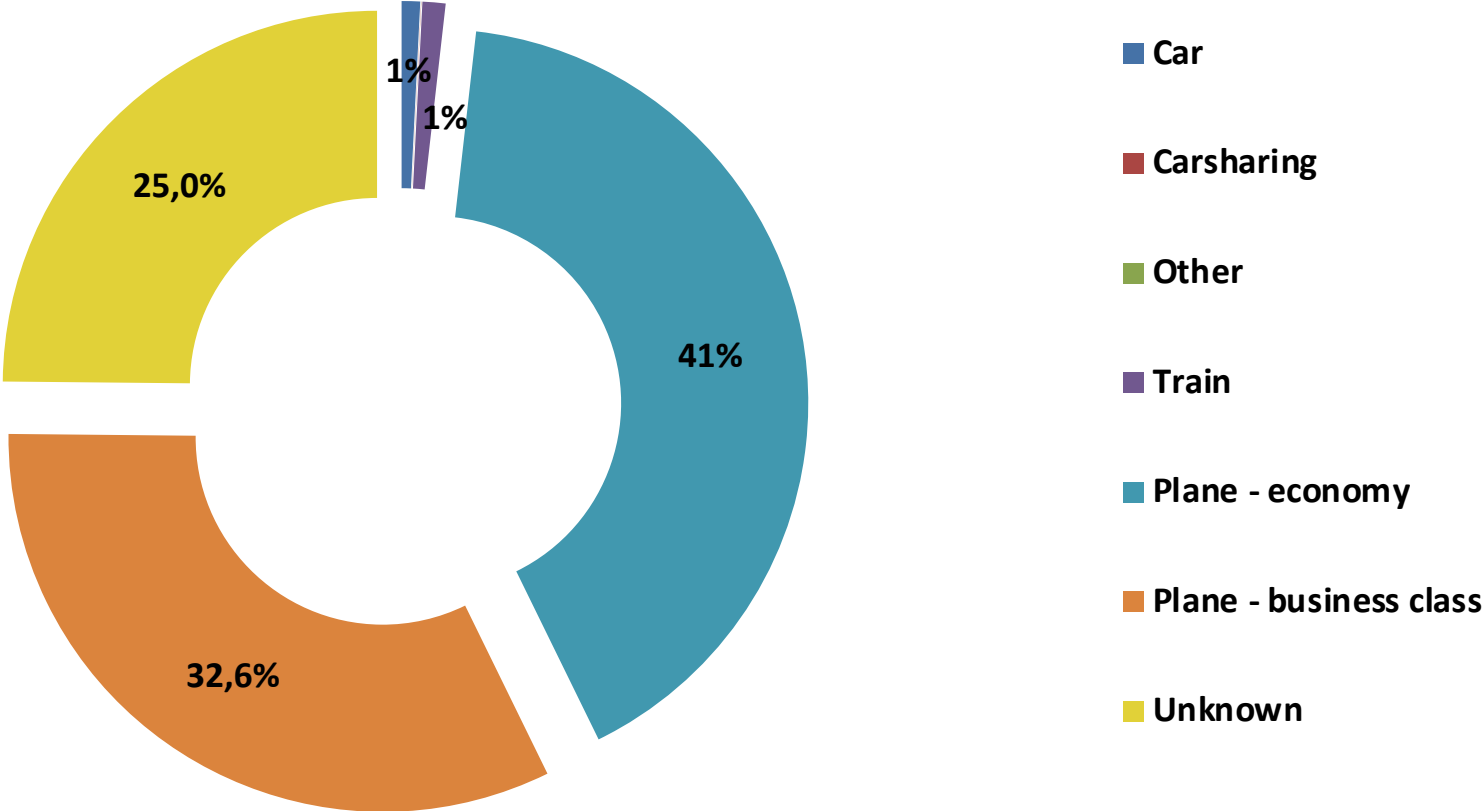
1) Transportation of participants (roundtrip)



Transportation of the event participants (roundtrip)	483,3 tCO2e	69,18%
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That's 2 417 trips from Lille to Marseille (1000 km) in a small petrol car 🚗

Distribution of emissions



1) Transportation of participants (roundtrip)



Distribution of travellers

- 21% of participants came via train
- 2% came by other sustainable modes of transport
- 3,5% of participants came alone via car
- 34% of participants came via plane, approx. 2/7 of which took the business class*
- 39% of participants did not provide data

*Hypothesis : conservative allocation of 1/5 of seats as business for short haul flights and 1/2 for long haul flights


Distribution of emissions

Mode of transport	Emissions in tCO2e	Impact by source (%)
Car	3,86	0,8%
Carsharing	0,20	0%
Other	0,03	0%
Train	3,53	1%
Plane - economy	199,28	41%
Plane - business class	157,43	32,6%
Unknown	118,98	25,0%
Car	3,86	0,8%
Carsharing	0,20	0%
Transportation of participants - Total :	483,31tCO2e	

2) Dedicated man-days



Dedicated man-days (organisation/set up off and on-site)	140,59	20,12%
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That's 703 trips from Lille to Marseille (1000 km) in a small petrol car 

928 man-days in total
distributed as follows

Design and organisation

800 man-days

Installation & Deinstallation

70 man-days

1 man-day = 89,13 kgCO₂e in Europe (average observed in the service industry in Western Europe based on 230 days worked per year)

1 man-day = 236,43 kgCO₂e in the USA (average observed in the service industry in the USA based on 230 days worked per year)

Source: CDP 2021 sectoral and regional analysis of companies' CO₂e intensity per full time employee or FTE (scope 1&2)

Obtaining your own company's carbon footprint per FTE would make it possible to refine this item and align the reduction of its emissions with that of your company.

2. Reduction of following editions' carbon footprints

European Union

55% reduction in CO₂e compared to 1990 levels

5% reduction per year by 2030



**European
Environment
Agency**

United Nations

Limit global warming to **less than 1.5°C: 11% reduction per year** by 2030

Limit global warming to **less than 2°C: 5% reduction** per year by 2030



Reduction : Country selection



2022



Brussels

Carbon footprint related to electricity production (source : IEA 2020)

0,2 kgCO2e/kWh

Average distance between country capital and other European capitals (Paris, London, Berlin, Amsterdam, Madrid, Milan) + NY :

1450 km

Carbon footprint per capita scope 1 & 2 (source : edgar.jrc.ec.europa.eu)

7,24 tCO2e.capita.year

2023



Hamburg

0,4 kgCO2e/kWh

1600 km

7,72 tCO2e.capita.year

2024



Copenhagen

0,17 kgCO2e/kWh

1750 km

4,43 tCO2e.capita.year

Potential carbon reduction measures*

*Based on GBTA Brussels 2022 footprint

Reduction : Transportation



If your participants + staff have to travel by plane, encourage them to travel in economy rather than business class.
If all participants do so, it would reduce the emissions of your event by about **75 tCO₂e**.

Encourage your participants + staff to use carsharing rather than taking individual vehicles.
If all participants do so, it would reduce the emissions of your event by about **2 tCO₂e**.

Have you informed your participants about alternative and less emission intensive modes of transport (train, bus, carsharing...) at their disposal ? Are there rewards to encourage good behavior ? What are the incentives to do good ?

Did all staff travelling by plane really travelled in economy class ?



By going to a venue that produces its own renewable energy you could reduce the emissions of your event by about **8 tCO₂e**

Choose a venue with a better energy class

Reduction : Accommodation



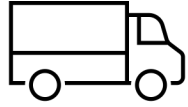
By encouraging your participants to stay in 3 stars (or less) hotels, you could reduce the emissions of your event by about **8 tCO₂e**

Try to book accommodation as close to your venue as possible

Make sure all hotels are accessible via public transport

Ask the hotels if they already know their carbon footprint per night

Reduction : Freight



By ensuring 50% of vehicle journeys are made in electric or hydrogen vehicles, it would reduce the emissions of your event by about **3 tCO₂e**

By pooling 50% of all space only trucks and ensuring shared trucks between suppliers, it would reduce the emissions of your event by about **1 tCO₂e**

Collect more precise data from space only exhibitors

Reduction : Equipment and stands



With no carpet at your event, you could reduce the emissions of your event by about **3 tCO₂e**

By using the booths at your event twice, you could reduce the emissions of your event by about **1 tCO₂e**

Collect better data from space only exhibitors



By eating vegetarian meals instead of meat based meals you could reduce the emissions of your event by about **1 tCO₂e**

Opt for poultry or fish instead of red meat if meat is considered an essential element for your event

Could a vegetarian theme within your event be considered ?

Reduction : Goodies



By offering only wooden goodies, you could reduce the emissions of your event by about **1,5 tCO₂e**

By offering only recycled plastic goodies, you could reduce the emissions of your event by about **3,5 tCO₂e**

By not offering goodies, you could reduce the emissions of your event by about **4 tCO₂e**

Try and replace physical gifts with donations your participants can choose from

Reduction : Recap



Category of emissions	Reduction potential (amount of CO2e)	Reduction potential (percentage of category)
Transportation	75+ tCO2e	12%
Energy	8+ tCO2e	73%
Accomodation	8+ tCO2e	42%
Goodies	4+ tCO2e	90%
Equipment and stands	3+ tCO2e	52%
Freight	3+ tCO2e	36%
Catering	1+ tCO2e	22%
Global	100+ tCO2e	14%

Ceteris Paribus / Everything else being equal



Partners

