Summary

1. The carbon footprint of GBTA Brussels 2022

2. Reduction of following editions’ carbon footprints
1) The carbon footprint of GBTA Brussles 2022
GBTA Brussels 2022

City: Brussels

Location: The Square

Number of participants: 883

Number of days: 3 days

Season: Autumn
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

<table>
<thead>
<tr>
<th>Carbon footprint of the event - PHYSICAL</th>
<th>Emissions in tCO2e</th>
<th>Impact by source (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated man-days (organisation/set up off and on-site)</td>
<td>140,59</td>
<td>20.12%</td>
</tr>
<tr>
<td>Staff transportation (CGF &amp; exhibitors)</td>
<td>17,21</td>
<td>2.46%</td>
</tr>
<tr>
<td>Transportation of participants (roundtrip)</td>
<td>483,31</td>
<td>69.18%</td>
</tr>
<tr>
<td>Transportation of the participants during the event</td>
<td>0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Freight (equipment &amp; consumables)</td>
<td>8.24</td>
<td>1.18%</td>
</tr>
<tr>
<td>Equipment and stands</td>
<td>5.76</td>
<td>0.82%</td>
</tr>
<tr>
<td>Energy (heat, cooling, electricity)</td>
<td>10.98</td>
<td>1.57%</td>
</tr>
<tr>
<td>Catering</td>
<td>4.63</td>
<td>0.66%</td>
</tr>
<tr>
<td>Accommodation</td>
<td>19.10</td>
<td>2.73%</td>
</tr>
<tr>
<td>Goodies</td>
<td>4.45</td>
<td>0.64%</td>
</tr>
<tr>
<td>Waste</td>
<td>3.34</td>
<td>0.48%</td>
</tr>
<tr>
<td><strong>PHYSICAL - Total:</strong></td>
<td><strong>697.60</strong></td>
<td><strong>tCO2e</strong></td>
</tr>
</tbody>
</table>

| Carbon footprint per participant - PHYSICAL | **791** | kgCO2e/participant |

<table>
<thead>
<tr>
<th>Carbon footprint of the event - DIGITAL</th>
<th>Emissions in tCO2e</th>
<th>Impact by source (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Websites</td>
<td>0.100</td>
<td>0.014%</td>
</tr>
<tr>
<td>Livestreams</td>
<td>0.200</td>
<td>0.029%</td>
</tr>
<tr>
<td>Social networks</td>
<td>0.200</td>
<td>0.029%</td>
</tr>
<tr>
<td>Emailing</td>
<td>0.500</td>
<td>0.072%</td>
</tr>
<tr>
<td><strong>DIGITAL - Total:</strong></td>
<td><strong>1.00</strong></td>
<td><strong>tCO2e</strong></td>
</tr>
</tbody>
</table>

| Carbon footprint per participant - DIGITAL | **1.1** | kgCO2e/participant |
Distribution of GHG emissions related to the event

- Dedicated man-days (organisation/set up off and on-site): 20.12%
- Staff transportation (CGF & exhibitors): 2.73%
- Transportation of participants (roundtrip): 1.57%
- Transportation of the participants during the event: 1.18%
- Freight (equipment & consumables): 2.46%
- Equipment and stands: 1.18%
- Energy (heat, cooling, electricity): 69.18%
- Catering: 1.18%
- Accommodation: 2.46%
- Goodies: 1.18%
- Waste: 1.18%
- Livestreams: 1.18%
- Emailing: 1.18%
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
- **24** years of heating for an average European house
- **33** tons of paper used
- **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%

That’s 2 417 trips from Lille to Marseille (1000 km) in a small petrol car

Distribution of emissions

- Car: 41%
- Carsharing: 1%
- Other: 1%
- Train: 25,0%
- Plane - economy: 32,6%
- Plane - business class: 1%
- Unknown: 1%
1) Transportation of participants (roundtrip)

Distribution of travellers

21% of participants came via train

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

<table>
<thead>
<tr>
<th>Mode of transport</th>
<th>Emissions in tCO2e</th>
<th>Impact by source (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>3,86</td>
<td>0,8%</td>
</tr>
<tr>
<td>Carsharing</td>
<td>0,20</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>0,03</td>
<td>0%</td>
</tr>
<tr>
<td>Train</td>
<td>3,53</td>
<td>1%</td>
</tr>
<tr>
<td>Plane - economy</td>
<td>199,28</td>
<td>41%</td>
</tr>
<tr>
<td>Plane - business class</td>
<td>157,43</td>
<td>32,6%</td>
</tr>
<tr>
<td>Unknown</td>
<td>118,98</td>
<td>25,0%</td>
</tr>
<tr>
<td>Car</td>
<td>3,86</td>
<td>0,8%</td>
</tr>
<tr>
<td>Carsharing</td>
<td>0,20</td>
<td>0%</td>
</tr>
</tbody>
</table>

Transportation of participants - Total: 483,31 tCO2e
2) Dedicated man-days

<table>
<thead>
<tr>
<th>Dedicated man-days (organisation/set up off and on-site)</th>
<th>140.59</th>
<th>20.12%</th>
</tr>
</thead>
</table>

That’s 703 trips from Lille to Marseille (1000 km) in a small petrol car.

928 man-days in total

distributed as follows

<table>
<thead>
<tr>
<th>Design and organisation</th>
<th>Installation &amp; Deinstallation</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 man-days</td>
<td>70 man-days</td>
</tr>
</tbody>
</table>

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
Reduction targets

European Union

55% reduction in CO2e compared to 1990 levels

5% reduction per year by 2030

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

<table>
<thead>
<tr>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brussels</td>
<td>Hamburg</td>
<td>Copenhagen</td>
</tr>
</tbody>
</table>

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

- 2022: 0.2 kgCO₂e/kWh
- 2023: 0.4 kgCO₂e/kWh
- 2024: 0.17 kgCO₂e/kWh

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

- 2022: 1450 km
- 2023: 1600 km
- 2024: 1750 km

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

- 2022: 7.24 tCO₂e.capita.year
- 2023: 7.72 tCO₂e.capita.year
- 2024: 4.43 tCO₂e.capita.year
Potential carbon reduction measures*

*Based on GBTA Brussels 2022 footprint
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.
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
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.
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?
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

<table>
<thead>
<tr>
<th>Category of emissions</th>
<th>Reduction potential (amount of CO2e)</th>
<th>Reduction potential (percentage of category)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>75+ tCO2e</td>
<td>12%</td>
</tr>
<tr>
<td>Energy</td>
<td>8+ tCO2e</td>
<td>73%</td>
</tr>
<tr>
<td>Accomodation</td>
<td>8+ tCO2e</td>
<td>42%</td>
</tr>
<tr>
<td>Goodies</td>
<td>4+ tCO2e</td>
<td>90%</td>
</tr>
<tr>
<td>Equipment and stands</td>
<td>3+ tCO2e</td>
<td>52%</td>
</tr>
<tr>
<td>Freight</td>
<td>3+ tCO2e</td>
<td>36%</td>
</tr>
<tr>
<td>Catering</td>
<td>1+ tCO2e</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td><strong>100+ tCO2e</strong></td>
<td><strong>14%</strong></td>
</tr>
</tbody>
</table>

*Ceteris Paribus / Everything else being equal*
Partners