

The Carbon cost of travel to a SEA-EU governance meeting

Objectives: In the « SDGs Declaration by the SEA-EU Alliance », SEA EU partners commit to be a role model and take into consideration the carbon footprint produced for the organization of SEA-EU activities, with an estimation and publication of the travel carbon footprint of at least each consortium governance meeting.

To have the best chance of avoiding a 2°C rise in global temperatures, in line with [Paris agreement](#), the average global carbon footprint needs to drop to under 2 tons per year and per person by 2050.

Methods: We estimated the carbon footprint of each participant to the governance meetings organised in Brest in September 2022. We used the ICAO Carbon Emissions Calculator (www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx, the official UN tool to quantify air travel CO₂ footprint) and the tool developed by the French agency for ecological transition to quantify train/mixed travel CO₂ footprint (<https://datagir.ademe.fr/apps/mon-impact-transport/>). We used the Erasmus distance calculator to estimate linear distance (<https://erasmus-plus.ec.europa.eu/resources-and-tools/distance-calculator>).

Results: The average distance travelled to the Brest meeting was 3072 km (round trip) per capita resulting in 0.489 tons (t) of CO₂equivalent (CO₂e) emitted per person. The overall CO₂e production is 18.609 tons for the 38 travelers for a 3-days meeting.

	Distance (km)	Train impact (CO ₂ e / kg)	Flight impact (CO ₂ e / kg)	Nb people
Brest - Cadiz	1337	8.8	459.8	10
Brest - Split	1701	13.9	513.4	10
Brest - Gdansk	1721	9.9	570.8	5
Brest - Kiel	1200	6.4	364	5
Brest -Malte	2086	-	470.4	2
Brest - Milan	1083	6.0	450.2	3
Brest - Bodo	2346	9.6	611.5	2
Brest - Faro	1284	9.7	466.6	1
<i>Mean</i>	<i>1594.8</i>	<i>9.2</i>	<i>488.3</i>	<i>4.8</i>

Conclusions: There is a large environmental impact from travel to annual meetings. Indeed, participating to such European alliance meeting correspond to 25% of the individual annual 2-tons footprint objective. In order to minimize this carbon footprint and to be in line with the commitments made in the SDG declaration, universities need to analyse the cost-benefits of each venue and consider existing (and cumulative) options:

- reduce the number of participants and develop hybrid participation,
- travel by train, at least for some slots of the travel if not possible for the whole trip,
- make the most of the environmental footprint produced, and avoid travelling for very short meetings,
- act on other carbon emissions of such an event, for example eliminate goodies, or favor vegetarian meals.