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**GALA**  
**Carbon Footprint**  
**analyses**  
**2013–2015**

Julie's Bicycle  
SUSTAINING CREATIVITY



This project has been supported  
by the European Culture  
Programme 2007-2013

As part of the Green Art Lab Alliance (GALA) programme, it was agreed that the carbon emissions of the workshops and key partner organisations would be quantified. We wanted to make sure that a project about environmental sustainability was doing its part to tangibly understand the carbon impacts of cultural activity and cooperation, to identify ways to address and reduce them without limiting the possibilities of cross-cultural dialogue and collaboration in the arts and culture. We hope that this pilot will inform further research and action in this area.

The main carbon impacts covered in this assessment are: travel, accommodation and the office impacts of main partner organisations. This carbon footprint scope is outlined below:

**(a) Travel and accommodation for partners attending:**

1. Art Motile workshop, A Coruña. November 2013
2. On The Move workshop, Berlin. March 2014
3. Riksställningar partner meeting, Visby. May 2014
4. Goethe Institut, Prague. June 2014
5. GeoAIR, Tbilisi. January 2015
6. Centre for Contemporary Art Ujazdowski Castle, Warsaw. January 2015
7. Museum of Transitory Art (MoTA), Slovenia, February 2015
8. Glasgow partners meeting, March 2015

**(b) Julie's Bicycle office operation associated with GALA. (assuming 5% of energy attributable to GALA).**

**(c) DutchCulture|TransArtists office operation associated with GALA. (assuming 5% of energy attributable to GALA).**

The following activities were not included in this carbon assessment:

- Impacts associated with the artistic labs haven't been included in this piece of analysis. GALA lab activity was more sporadic than workshops, and several lab partners did not have access to Julie's Bicycle workshops or in-person expertise. It was, therefore, difficult to establish a consistent scope, and collect data.
- Travel data for the first GALA partners meeting held in Maastricht was not available.
- The carbon emissions associated with each of the host venues for the duration of each event hasn't been included in this analysis. It's estimated that these emissions would be negligible (<1% of total emissions).

Carbon emissions were calculated using internationally recognised conversion factors published by the UK Department for Environment, Food & Rural Affairs (DEFRA). All results are published in tonnes of Carbon Dioxide equivalent (CO2e).

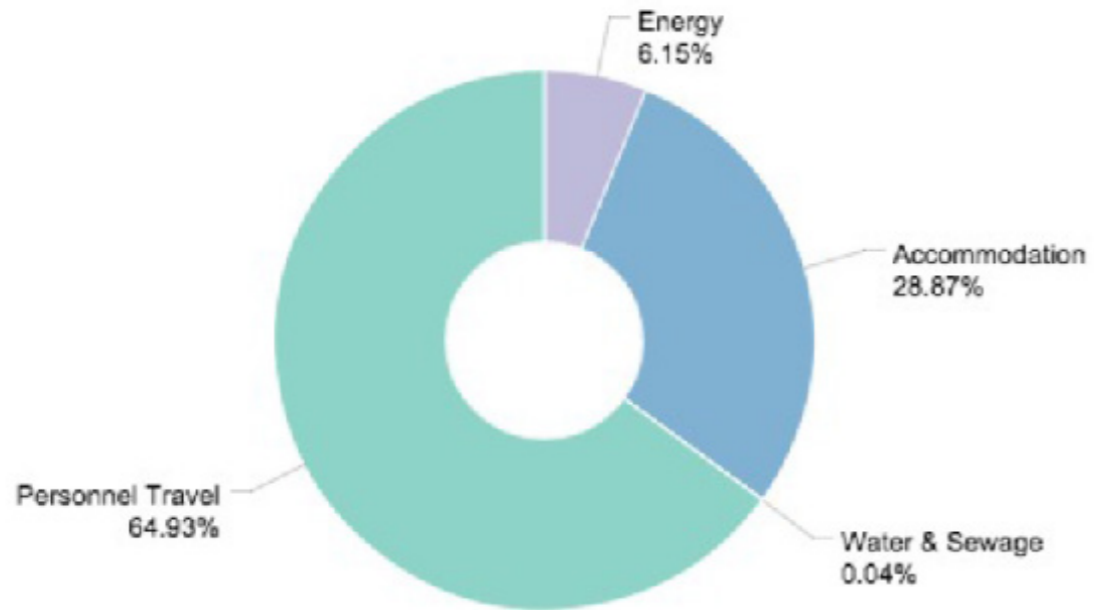


Chart 1: Carbon emissions for GALA project, as identified in scope (Total = 24.2 tonnes CO2e)

Chart 1 shows the breakdown of travel and accommodation emissions associated with all of the workshops and partner meetings. Total emissions equal 24.2 tonnes CO2e, which is approximately equal to the carbon emissions of five average-sized European dwellings<sup>1</sup>.

<sup>1</sup> [http://www.eea.europa.eu/publications/eea\\_report\\_2008\\_6](http://www.eea.europa.eu/publications/eea_report_2008_6)

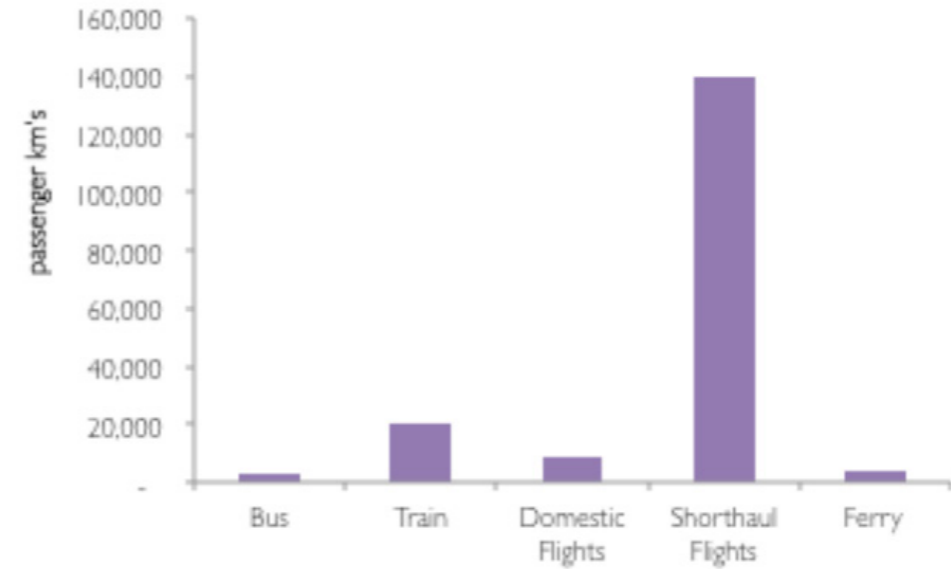
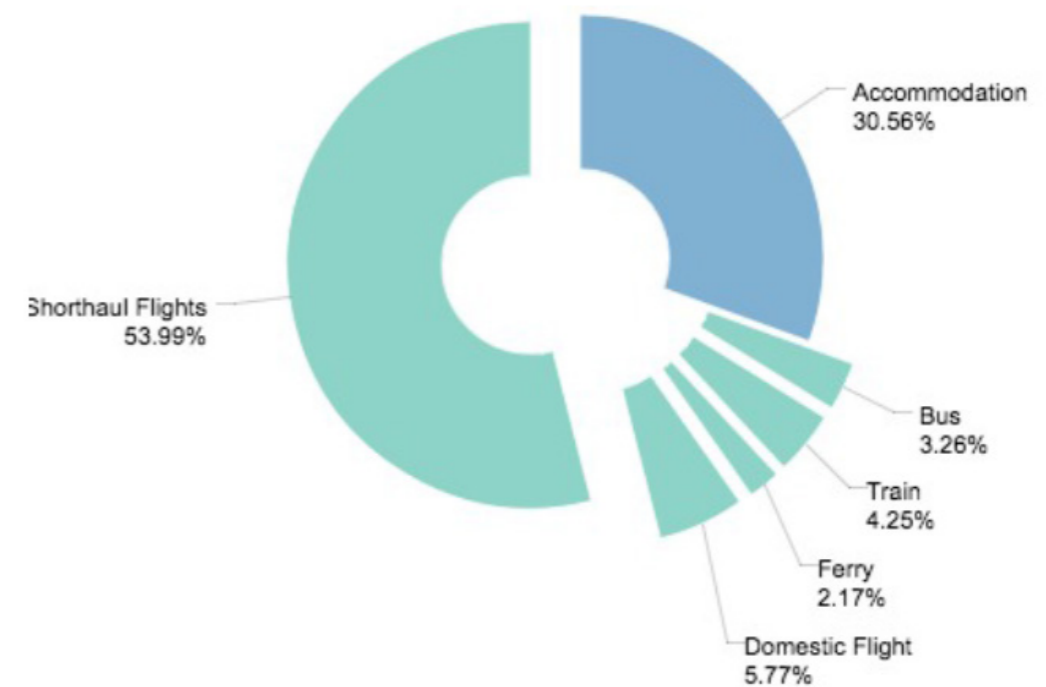


Chart 2: Total passenger kilometres for all attendees to workshops 1 - 8, by transport mode

Short-haul flights constitute the biggest impact, being the most common mode of transport (chart 2), and having a carbon impact over seven times higher than train travel, for example. Domestic flights are generally classified as <800km, so often flights from neighbouring countries have been included as domestic. For a comparison of the respective carbon impacts of different travel modes, please see chart 7.



<sup>2</sup> Eurostar compared with domestic flights

Chart 3: Total workshop carbon emissions (22.9 tonnes CO2e). Travel emissions by transport mode

Accommodation (predominantly hotels) contributed to 29% of the GALA project's total carbon footprint (chart 1). Accommodation was almost exclusively provided through hotels, but participants for some workshops were local and therefore didn't require accommodation. Carbon emissions associated with non-hotel accommodation, such as apartments can reduce emissions by one-third.

The carbon emissions associated with Julie's Bicycle and DutchCulture|TransArtists offices for 24 months were apportioned according to the number of hours worked on the GALA project compared to total staff hours (c.5% in each case). The total office emissions for this two-year period equalled 1.5 tonnes CO<sub>2</sub>e, or just over 6% of the total measured GALA carbon footprint (chart 1). The vast majority of this footprint is associated with energy, with water equalling 0.7% of office emissions.

Chart 4 shows the total carbon emissions (travel and accommodation) for each of the workshops, whilst Chart 5 shows the carbon emissions per participant. Whilst quantifying the workshop impacts by the number of participants does change the relative impact of some workshops (such as GeoAIR in Tbilisi), the overarching trend remains the same.

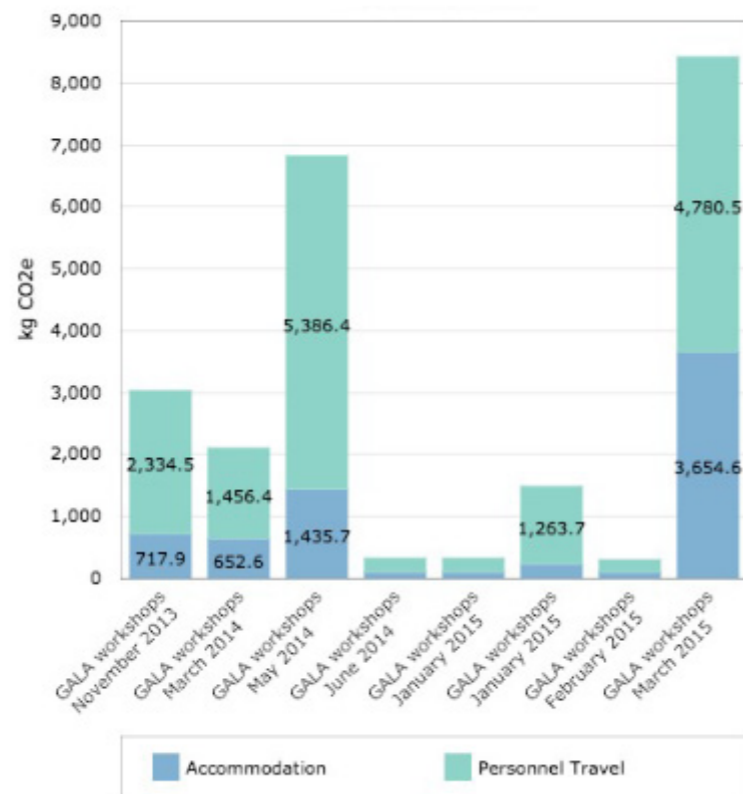


Chart 4: Carbon emissions for travel and accommodation, by workshop

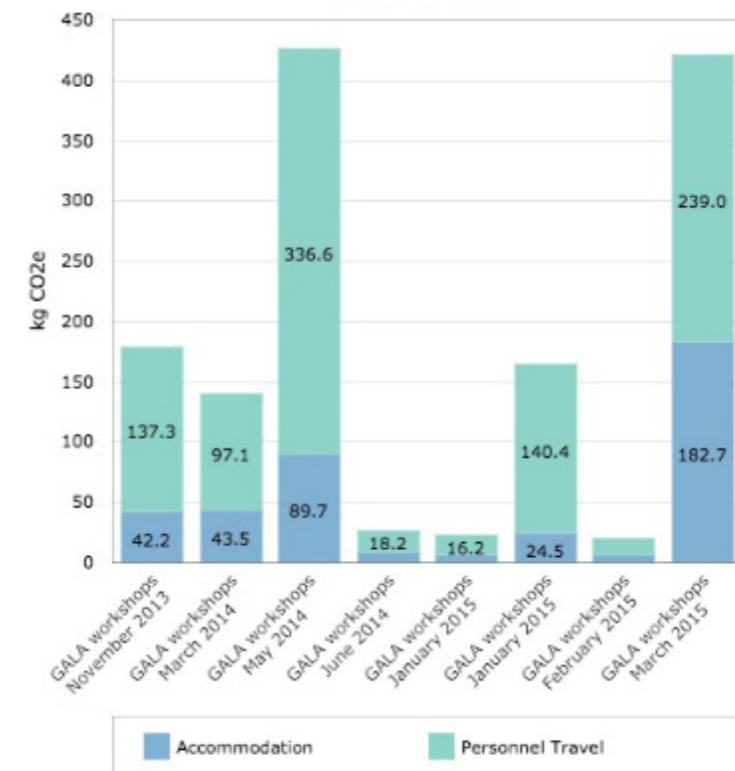


Chart 5: Carbon emissions for travel and accommodation per participant, by workshop

Partner meetings were responsible for the biggest proportion of travel emissions – two thirds of the overall footprint, compared to one third for all of the other workshops combined (chart 4 and 6). Partner meetings had the highest proportion of attendees from different countries, and the locations of both Partner Meetings (Visby, Sweden and Glasgow, UK) necessitated travel by plane for many participants. Glasgow received a larger number of participants, each staying for up to 4 nights. In contrast, the workshops involved international travel for facilitators, but most participants were local.

## Main insights

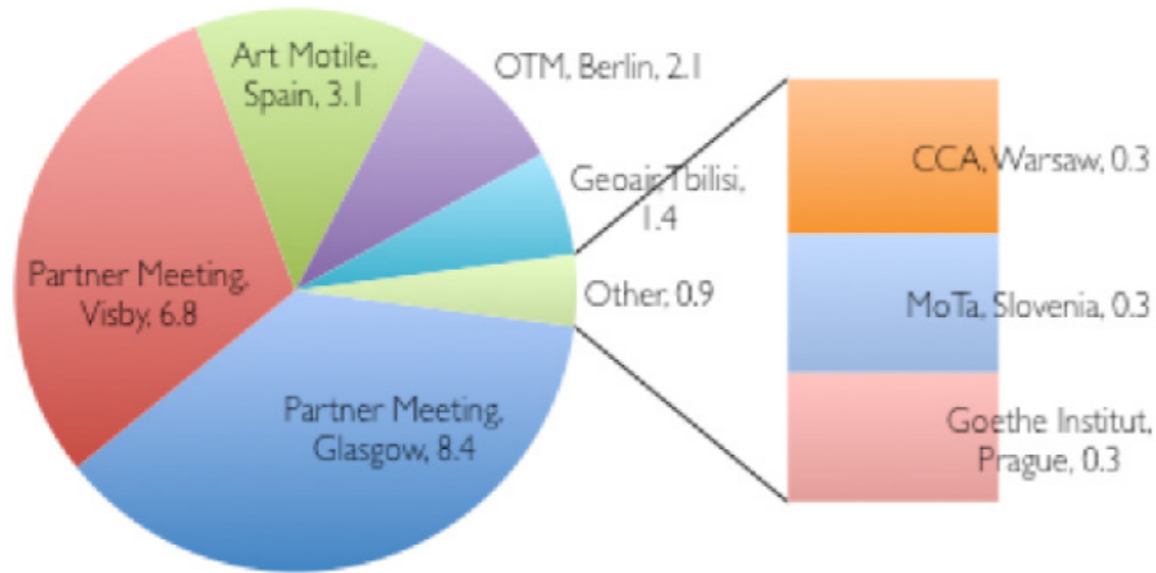


Chart 6: Total carbon emissions (travel and accommodation), by workshop/meeting

- Location (and the location of invited participants!) has a significant effect on the carbon emissions of meetings and workshops. Some participants opted for international trains and ferries where possible, and video conferencing was used widely by partners collaborating across different countries to plan workshops, meetings and labs, to reduce travel where possible.
- Partner meetings were responsible for around two thirds of all GALA project carbon emissions. Whilst partner meetings had the highest proportion of international participants, both Visby and Glasgow necessitated a relatively high proportion of air travel. Travel to Visby, for example involved either at least two flights, or one flight, a bus and ferry journey for each participant.
- The comparative carbon emissions of partner organisations' office operations were relatively low (assuming that 5% of total employee hours worked within each organisation was dedicated to GALA). Energy is the most significant office carbon impact.
- Accommodation (predominantly hotels) for workshop participants equalled almost one third of all emissions.

## Recommendations

1) To expand the carbon footprint scope to include artistic labs on future projects, and within the partner organisations on an ongoing basis.

*Now that the partners are more familiar with the tools and resources available for measuring the carbon emissions of cultural activity, they will be better placed to start practically applying the environmental principles that have developed throughout the GALA project.*

2) Improve access to carbon footprinting tools and resources further, so that the process is owned more by organisations and cultural practitioners across a diverse range of activities.

*Budget for translating the IG Tools (the carbon calculators we have developed for the arts and culture) will support this process by providing easier access to non-English speakers. The footprinting process builds transparency about the environmental impact of cultural activity, so that we can actively and creatively address the challenge of ensuring a vibrant and cooperative cultural community across Europe with as little impact on the environment as possible.*

3) Decide the location of meetings that invite international participants based on accessibility by road or rail by the majority of attendees.

*Both Visby and Glasgow are relatively challenging cities to travel to by rail or road. Locations in continental Europe would have reduced the travel impacts by making it more feasible for attendees to choose lower carbon modes of transport. Chart 7 below shows the comparative impact of different modes of transport.*

4) Prioritise residential or small-scale accommodation over hotels.

*Residential accommodation (apartments, guest houses, Airbnb) is three times more carbon efficient than hotel accommodation.*

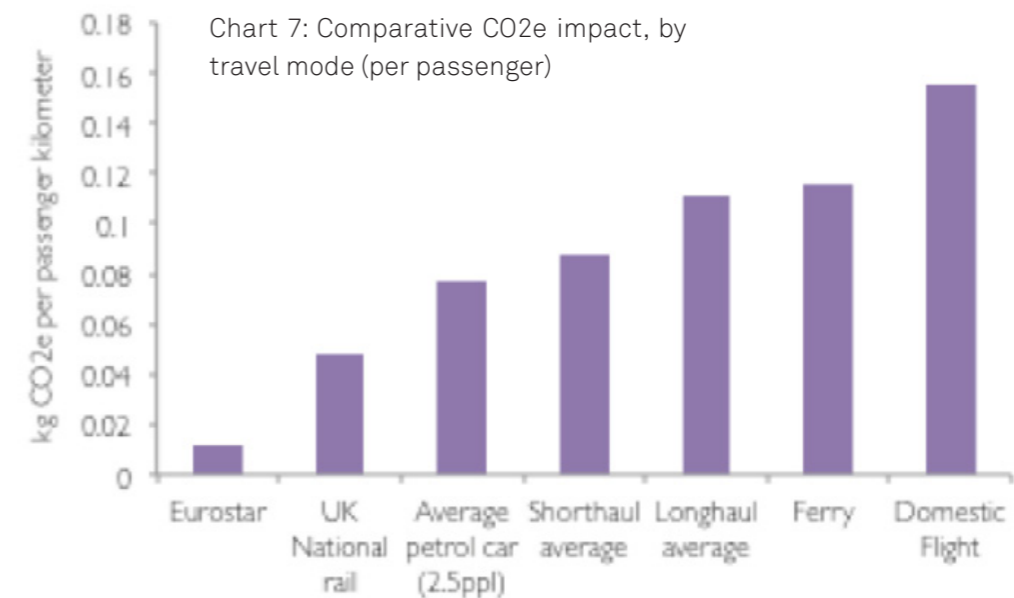


Chart 7: Comparative CO2e impact, by travel mode (per passenger)