



DEVELOPMENT OF A CO₂ VISUALISATION TOOL TO REDUCE THE ERASMUS+ CARBON FOOTPRINT

Students and staff need to be informed of the impact of their choices regarding the means of transport they use to go on mobility abroad. IT tools can allow them to visualise their transport-related carbon footprint and explore alternatives to minimise it and offset it while preserving their freedom to choose their travel destinations.

The second intellectual output, led by the Aristotle University of Thessaloniki (AUTH), will start by doing an inventory of existing digital tools that can allow higher education students and staff to visualise their carbon emissions in order to propose to them means of transport that have a smaller carbon footprint. For example, this will allow them to know that taking the train instead of flying cuts CO₂ emissions per passenger by 90%.

The main result of IO2 will be the introduction of a carbon footprint calculator that can be easily used by higher education students going on mobility abroad with the Erasmus programme and by staff taking part in transnational cooperation projects under KA2 and KA3.

This tool will estimate the carbon footprint of the mobility based on the place of origin and the destination and display it according to the different means of transport available (e.g. plane vs train), making the relevant comparisons and nudging the user to choose the most environmentally-friendly option.

This will imply different items:

- » Research and testing of available applications (such as Carbon Footprint Ltd <https://www.carbonfootprint.com/>) in order to weigh their pros and cons, estimate their reliability and identify the best solution. The chosen application will be free and open source to ensure its usability and inclusivity by a wide number of users.
- » The development of our own CO2 footprint visualisation tool adapted to the needs of the participants to the Erasmus mobility programme in both web and app versions for Android and iOS systems. The tool will be user-friendly, open source and free to download and use.
- » Both the web and the mobile phone applications will include comparisons of the impact of different means of transport and their associated carbon footprints, complemented with push notifications, reminders, suggestions for offsetting CO2 emissions and post-mobility “green performance” comparisons with other students and staff of the same Erasmus cohort (weighed by region).
- » These incentives will be based on the results of IO3 and will take into account the progress of the discussions initiated by DG EAC on the possibility of implementing “green top-ups” to encourage Erasmus students to travel by train.
- » The tool will be tested for its efficiency in lowering the carbon footprint of higher education Erasmus participants at each of the EGG universities. Its impact will be assessed through discussions in the form of focus groups including higher education students and staff from the partner universities.

- » AUTH will explore possible future synergies between the CO2 footprint visualisation tool and the relevant blocks of the European Student Card Initiative, such as the Erasmus+ Mobile App.

- » A discussion with the relevant stakeholders in the European Commission will also be initiated to explore possible links with Mobility Tool+ and allow DG EAC to visualise and monitor the CO2 trends and overall footprint of the new Erasmus programme (2021-2027).

CLICK HERE TO DOWNLOAD the first report of this intellectual output:
THEODOSSIOU Nicolaos P., KARAKATSANIS Diamandis, STAVRIDIS
Charis, FOTOPOULOU Eleni, *Inventory of visualisation tools*, Aristotle University of
Thessaloniki (Greece), 2021.