

CALL FOR MASTER THESIS

Emitters vs consumers, mapping the distribution of air pollution emitters and air pollution consumers in the Barcelona Metropolitan Region from a spatial equity perspective.

Project framework:

This MSc thesis is offered within the [GEMOTT](#) (Grup d'Estudis en Mobilitat Transport i Territori) research group, within ICTA and the UAB's Geography Department.

Research Background:

The morphological characteristics of the Barcelona Metropolitan Area create a number of spatial travel-related injustices and inequalities. Among them is the fact that those with more polluting lifestyles in transportation are often not the ones that are exposed to air pollution the most. City center inhabitants are often among the citizens with more sustainable travel patterns, based on high rates of active transport, public transport, and proximity use. However, the inhabitants of these areas are often among the most exposed to poor air quality conditions due to the high amount of traffic and concentration of activities within the city center. In contrast, those who elect to live in metropolitan low-density, and car-dependent areas usually lead the most polluting lifestyles while consuming the least amounts of contamination during their daily lives. This unbalance creates urban inequalities with important implications in terms of health and policy.

Objectives:

- a) To understand the different socioeconomic profiles in terms of travel-related pollutants and understand the spatial distribution of such population profiles.***

Methods:

To do so, the student will use the EMEF21, a large travel survey for the Barcelona Metropolitan Area that for the first time in its edition of 2021 allows us to geolocate each trip origin and destination. Using a quantitative approach and GIS techniques the student will assess the fundamentals of this imbalance and attempt to put forward specific policies.

Technical details:

The thesis will be directed by Dr. Oriol Marquet (ICTA-UAB) and Dr. Monika Maciejewska (VUB, Belgium) with the collaboration of the rest of the GEMOTT members. We expect that a revised version of the MSc Thesis will be submitted to a peer-reviewed journal for publication. The final document can be presented in Catalan, Spanish or English.

If you are interested on writing your MSc thesis on this topic, please contact oriol.marquet@uab.cat