Title: The Socio-Economic Impacts of Low Emission Zones

Acronym: URBAN_SKIES

Project leader: Natalia Fabra

Host organisation: Universidad Carlos III de Madrid

Main purpose of the project: URBAN_SKIES will explore the long-lasting socio-economic effects of Low Emission Zones (LEZs). In particular, whether LEZs are powerful enough to shift the car fleet composition towards cleaner cars, shift habits towards shared-mobility options and boost economic activity within the restricted areas. The project will also explore the distributional implications of these changes. URBAN_SKIES will thus contribute to the debate regarding two global questions of key socio-economic relevance: the design of environmental policies and the future of cities.

Design/methodology/approach: Access to high-frequency and hyper-local data (including car registration data, car and bike sharing data, and card transactions data, together with socio-demographics) will allow us to analyse the socio-economic impacts of the LEZs in Madrid and Barcelona through the lens of state-of-the-art econometric techniques.

Potential results: We expect to provide evidence on the project’s main questions: to what extent does urban access regulation based on vehicles’ emission rates directly shift the vehicle composition fleet towards cleaner cars? Secondly, does this regulation create the habit of using shared-mobility options? Finally, what are the impacts on economic activity and social mobility in the restricted areas?

Social relevance of the research: Road transport is a leading source of greenhouse gases and local air pollutants. The health, economic, and societal costs of local air pollution are substantial, ranging from decreased life expectancy and increased infant mortality to far-reaching economic implications such as job losses or decreased consumer spending. Our project will provide rigorous evidence on the effectiveness of Low Emission Zones to tackle these effects, allowing policymakers to make informed choices.

Originality/value of the project: While the positive impacts of LEZs on air quality have been documented, little is known about their broader and longer-lasting socio-economic impacts. Our project will provide evidence on the impacts of LEZs on the vehicle fleet composition, the shift in habits regarding shared-mobility options, and the economic activity and social mobility in the restricted areas. The use of high-frequency hyper-local data will allow us to uncover unstudied effects.