Who can access to their basic needs? How are mobility resources distributed? Mobility justice as defined by Sheller (2018) seeks to answer these questions and understand how fair our cities and our mobility are. In an analogous approach, Lucas Karen (2016) defines transport poverty as a situation where individuals face excessive transport time or costs, unsafe or unhealthy mobility, limited mode options, or restricted access to activities. These overlapping theories underscore the need to examine how mobility impacts unevenly the population and particularly vulnerable groups.

Problem definition
The Technical University of Munich designed a Mobility Injustice Atlas as a tool for mapping and identifying areas facing both high social disadvantages and high mobility disadvantages. The Atlas maps the distribution of socially disadvantaged groups (older people, low income, unemployed…) as well as mobility disadvantaged variables (availability of transport infrastructure, air quality…). The atlas identifies transport poverty through an objective, spatial data-based analysis. However, we do not know which transport poverty issues are perceived as crucial and important by citizens and need to be addressed.

Description
To improve connections for sustainable futures, it is essential to identify individuals capable of participating and accessing basic needs. Therefore, this challenge aims to develop and implement a citizen participation methodology or tool for identifying areas of transport poverty, where social and transportation disadvantages intersect. Stakeholders should evaluate this tool, which will consolidate people’s concerns and generate a ranked report on the main transport issues per social group.

Key questions
What mobility inequalities are unfair for disadvantaged social groups?

Links
http://accessibility-atlas.de/
https://syncandshare.lrz.de/getlink/fi7q2ukHDC8aV4LTwfyEq/Mobility%20Injustice%20Atlas_Munich_TUM.pdf

Skills
Spatial analysis, qualitative data analysis, online tool development

Partner
David Duran, a postdoctoral researcher at the Technical University of Munich, leads the Mobility Justice research group. His dissertation focused on the balance between efficiency and equity in bike-sharing planning. With a background in civil engineering, he graduated from the international TUM Master’s program in Transportation Systems. Duran’s research aims to address and eliminate mobility injustices through quantitative and qualitative methods, analyzing and visualizing mobility-related data. Sindi Haxhija joined the Chair of Urban Structure and Transport Planning as a Research Associate in December 2021. She holds a dual masters degree in European Spatial Planning from Radboud University (Netherlands) and Regional Development from Blekinge Institute of Technology (Sweden). Prior to her work at the Chair she has been working as an urban planner for ISOCARP Institute in the Netherlands where she was mainly involved in EU projects focused on smart cities and nature-based solutions. Her research focus for her PhD journey is urban mobility and spatial justice issues in urban development projects.