Improved urban mobility toward climate neutrality (ONWARD)

Most modern cities struggle with severe traffic congestion and pollution. Thus achieving an efficient and climate-neutral urban transport system is is one of the key challenges. Widespread availability of technology (such as the internet and mobile phones), new urban concepts such as the 15-minutes city, and changes in societal trends, particularly working habits (e.g., telework and overtime working) further complicate the problem, increase uncertainty and provide new challenges to urban mobility. Understanding the impacts of these new developments on citizens' location choices and associated travel patterns, and providing new innovative solutions to the urban traffic system are critical to an efficient, low-emission and sustainable urban environment. With real-life experiments and advanced urban transport modelling approaches, we will investigate the short-run behavioural impacts and long-run implications of these challenges on urban mobility and city structure. We will further explore the potential for integrated Mobility as a Service (MaaS) solutions and market-based personal carbon permit trading in providing an efficient, equitable and lower-emission urban traffic system. This project thus aims to contribute to achieving accessible, climate-neutral and sustainable cities, and provide citizens with sustainable and efficient solutions integrating multiple types of transport modes.