The CITRAM project aims at improving traffic quality in cities with the help of floating car data provided by citizens. During CITRAM, the citizen science platform enviroCar (https://www.enviroCar.org) has been extended and is used to collect floating car data in three German cities. Citizens are invited to collect data in designated field tests while driving their day-to-day routes. These collected trajectories are anonymised, stored and published under an open data policy in a central server.

Dedicated postprocessing services using new concepts for evaluation and visualization analyze the data on a daily basis deriving traffic quality characteristics. The raw data and the processed reports are used by the cities and their planners to assess the traffic quality and to deduce actions to improve traffic management.

The project also raises the awareness of an environmentally improved driving behavior through the collection of floating car data enriched with individual energy and fuel consumption along the recorded routes of electric and internal combustion engine driven cars. Through the integration of municipal information infrastructure into a dedicated real-time Smart City platform and a model accounting for the dynamic control of traffic light systems, a traffic light phase assistant app (ECOMAT) further supports the driver in a foresighted and energy optimized driving behavior by providing Green Light Optimised Speed Advisory (GLOSA) and Time To Green (TTG) information in real-time.

The motivation of CITRAM is the coupling of system components that enable scientists, traffic engineers and citizens to collaborate on knowledge acquisition concerning driving in motorized traffic. We will present the developed tool set and the results from the analysis of floating car data collected by citizens. The analysis assess the quality of traffic flow within the municipality as well as characteristics of individual trajectories or dedicated routes.