**Title**: Justifying the use of cargo bikes for last-mile deliveries: Case study for selected European cities

**Introduction**: the importance of sustainable logistics (environmental pollution generated by transport, ways to reduce it), growth of last-mile deliveries (e-commerce, jams in cities), the use of alternative modes of transport to deliver goods in cities

**Literature review**: existing approaches to measure the efficiency of cargo bikes, the methodologies to measure the environmental effect of transport, known and described cases of successful use of cargo bikes (with numeric depiction of results achieved)

**Proposed approach**: a structure of the simulation model (transport network, demand for deliveries, optimization modules?), in detail – an approach to simulate the demand for deliveries for the given city area, the proposed method to calculate the reduction of distance covered by traditional vehicles obtained due to the use of cargo bikes (with the corresponding CO2 reduction)

**Case studies**: results for the central parts of Krakow, San Sebastian, Vitoria-Gasteiz, Rimini, and Mechelen (models of the transport network and demand, distributions of the resulting variables – CO2 reduction, statistics on the results of simulations)

**Discussion**: compare the numeric results for the considered cases, and try to observe the influence of the demand structure (proportions of different types of potential clients inside the city areas) on the result of simulations?; show results for different demand intensities and compare the CO2 reduction for the considered cities

**Conclusions**: formulate the recommendations for decision-makers: when the use of cargo bikes pays off, what demand parameters (demand structure?) should be to obtain a significant (how to define this significance?) effect of the cargo bikes use for last-mile deliveries

**Developed software**: UML diagram with a brief description of the key modules and methods; the code will be placed in the dedicated repo at github.com (Michal will make the description and commentaries for the code); we also plan to add the module that will read the network and demand parameters automatically from OpenStreetMap