

Scientific head:	Prof. Dr. F. Corman
Project title:	Data fusion for enhancing knowledge about road freight transport – The Case of the Canton of Zurich
Supervision:	Jan Lordieck
Government partner:	Office for Mobility of the Canton of Zurich

Background and problem description

Road freight transport is carried out entirely by the private sector, the administration only provides a regulative framework. Therefore, the administration has only few data about road freight transport which include national statistics with information on how much of what type of freight was transported from where to where and traffic counts which only provide the number of heavy vehicles passing by the observation point. Hence, the localisation of vehicle miles and thereby the information where negative externalities by which type of freight transport are caused, is missing.



Research question

This proposal intends a study on how survey data and traffic counts of freight transport can be fused to enhance knowledge on where which type of freight transport is happening. The goal is to rely on measured or surveyed data to produce an estimate without setting up a complete freight transport model. The main research question is: How is it possible to derive an estimate what type of trucks drive where by only using traffic counts and survey data.

Expected results

The student taking this challenge is expected to study those research questions in detail for the Canton of Zurich utilising national and cantonal traffic count data as well as the national survey on freight transport (GTE and GQGV). The goal is to know not only how many trucks passed by an observation point but to know how many trucks with which type of good passed by and thereof infer the mileage of trucks with a specific good loaded in the Canton of Zurich.

Credits:	20-30 (Bachelor or Master thesis)
Requirements:	<ul style="list-style-type: none"> • Motivation to work on a real-life task with contact to the responsible people from the Office for Mobility • Motivation to work on a data science topic with application of assignment models • Some experience with quantitative data analysis (including GIS) and graph theory