At the Chair of Logistics and Supply Chain Management of TUM School of Management we are looking for an interested and qualified student to conduct his/her Master thesis on the topic:

**Joint Fleet Sizing and Business Area Definition for Profitable Ridesharing**

All over Germany, commercial ridesharing offers, such as IsarTiger in Munich or Moia in Hamburg, emerge. Obviously, those ridesharing services must reach a minimum fleet size to reach sufficient pooling effects whilst being able to serve customers within a reasonable time limit. If the fleet size is limited (for technical or legal reasons), such pooling effects can also be reached by restricting the operating area. We are interested in the minimum fleet size and maximum business area to operate a ridesharing service profitably. In particular, we are interested in the interplay between the two influencing factors, e.g. how much can an operator increase her/his business area due to a given increase in the fleet while remaining profitable?

A qualified student will model the problem and prepare a reasonable data set (from available raw data) to calculate minimum fleet size and maximum business area in different environments, and estimate the interdependence between the two objectives.

**Selected research tasks:**
- Literature Overview on shared mobility solutions and operations thereof with a focus on fleet sizing and business area definition
- Modelling
- Evaluation of the model

**Requirements:**
The thesis is for Master students of the study-program TUM-BWL (with a major in Supply Chain Management). A qualified student has successfully participated in the course Modelling, Simulation and Optimization. The ability to work independently as well as analytical skills are required. The thesis should be written in English (with supervision in German or English).

**Begin:** as soon as possible

**Advisor:** Layla Martin

**Application:** Email with curriculum vitae and transcript of records to logtheses.wi@tum.de