



## Road space allocation to different modes of transport in an urban environment for maximum sustainability



Global dialogue  
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transport



### Problem description

Urban mobility is changing with the arrival of massive use of shared mobility services such as Uber or Car2Go. Moreover new modes of transport called micro electric modes have also made their way into the market with bikes and scooters in many European cities. At this point cities are facing difficulties with understanding where and how to accommodate these modes and what role they should play in the different areas of a city in order to supply a more sustainable mobility. On a link based level one should decide which capacity should be given to each mode in order to satisfy sustainability criteria and of level of service of the different transport modes and ensure a strong urban livable environment. In this master thesis assignment the student will work with models that optimize this usage at an urban context applied to a case-study.

### Assignment

The assignment will consist of:

- Literature study
- Propose and build a simulation-based optimization model for studying the allocation of road space to the different modes of transport in a city area
- Compare before and after scenarios the case-study
- Develop different objective functions and/or constraints specifications to target the different angles of sustainable environments.

### Background

A student who has affinity with working with software and is willing to program is needed for this job. The project time span will be 6 months and will be guided by OECD-ITF, including an internship at ITF in Paris. Meetings at TU Delft for supervision will also be required as well as video-conference.

### Research group

The project can be conducted as final thesis project for MSc Civil Engineering –Transport & Planning track or MSc in Transport Infrastructures and Logistics including an internship at OECD in Paris.

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