Problem description
Driving involves many strategic and tactical decisions, which lead to driving behaviour on roads. On motorways, many aspects of lateral movements such as lane changing are only partially understood. Also in urban environments, there are many aspects of lane choice and movement that are not fully understood. The number of lane movements influences the capacity of a road and the efficiency of traffic flow and is therefore important.

Therefore, data and simulation lab DiTTlab and Sweco are interested in investigating what tactical and strategic decisions a driver makes for lane choice and the manner in which a lane change manoeuvre is performed in busy motorway and urban traffic.

Objectives & Assignment
The objective of this project is to uncover the decision mechanisms that lie behind lane choice and lane change tactics. This will involve setting up experiments to collect data, constructing hypotheses, and testing the hypotheses based on empirical observations. Furthermore it may be possible to propose changes or extensions to traffic simulation models that need to accurately apply these processes.

This Master thesis includes an internship at Sweco

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