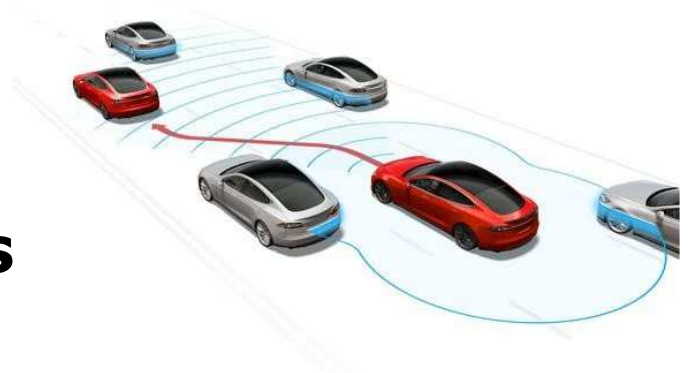


# Drivers' Preferences between Automated and Manual Lane-Changing Manoeuvres



## Problem description

The automated and connected vehicle (CAV) technology promises to reduce congestion and increase traffic safety. This is expected to be achieved by maintaining short headways between connected vehicle platoons and eliminating human errors, respectively. Systems such as automated merging or lane changing assistance could be deployed together with longitudinal automation to assist drivers in lane-changing decisions and manoeuvres. However, CAV drivers' preferences in choosing automated or manual mode in lane-changing manoeuvres is only understood to a limited extent at this moment. Besides, dedicating a special lane to CAVs could change drivers' preferences in these manoeuvres as well. Thus, the purpose of this study is to investigate CAV driver's preferences in terms of automated or manual mode when changing lanes. For this purpose, a driving simulator experiment will be conducted with participants to gain empirical insights regarding these preferences.

## Assignment

- Literature review on drivers' preferences in driving mode in transient maneuvers;
- Experimental design and development of driving scenarios in a driving simulator;
- Recruiting participants and running the scenarios in the driving simulator;
- Preparation and analyzes of the collected data;
- Writing a report and optionally a scientific paper.

## Research group

Transport & Planning department

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