# Is Eyes-on & Hands-off driving a good idea?

## Problem description

Automated driving technologies are evolving rapidly, with Advanced Driver Assistance Systems (ADAS) and automated vehicle systems now a reality in the consumer market. SAE (Society of Automotive Engineers) Level 2 systems, which require constant driver supervision while offering advanced driving assistance (Eyes-on & Hands-on), are common in vehicles today. However, newer systems, referred to as "Level 2+," allow for extended periods where the vehicle controls both steering and acceleration, with minimal driver intervention, encouraging a "hands-off" and "eyes-on" driving experience. Despite the marketing appeal of these systems, there is a concern regarding the safety, usability, and user perception of such driving.

## Objectives

The study aims to assess driver behaviour and awareness in SAE Level 2+ systems. You will investigate how drivers interact with Level 2+ systems in terms of hands-off and eyes-on driving behaviour, including attention, natural behaviour, and driver expectation.

## Assignment

- Review of the driver behaviour, driver-vehicle interaction, and system capabilities.
- Set research questions
- Design a study (e.g., simulator experiment) to collect data to solve the research questions
- Investigates drivers' behaviour in Level 2 + systems
- Write a thesis report (and potentially a scientific paper)

## Research Group

Traffic and Transportation (TTS) lab, Transport & Planning Department
Prof. Marjan Hagenzieker
Dr. Soyeon Kim
* RDW will possibly be joined (TBA)

## Information

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Lab Automated Driving & Simulation

Lab Traffic and Transportation Safety

** We are looking for a student who can start between October 2024 - February 2025*