Driver trust and reliance of road-side traffic management vs in-car systems

Problem description

The Netherlands has long history and experience with Dynamic Traffic Management (DTM). However, many of the current roadside traffic management measures are in need of replacement. Moreover, in recent years in-car C-ITS (Connected Intelligent Transportation Systems) has started to dominate, through the likes of in-car route guidance, speed advice, and traffic information systems. With different forms of information offered by different organisations, drivers now have much more information that sometimes seems to contradict each other or which is offered in different formats and quality. Drivers make decisions based on this information, which in turn also influences their behaviours and traffic flow. Therefore, there is a need to investigate how drivers use this information, which information they trust most and what the potential impacts of this might be.

Objectives & Assignment

The objective of this project is to investigate the extent to which different forms of traffic information is received and used by road users and to what degree they are trusted. This will involve investigating the current practice and system capabilities, performing experiments (such a surveys, interview and/or data-analysis) to unearth user preferences and use. The outcomes of such an analysis are key for road authorities that actively offer traffic information to estimate the effectiveness of the information and future choices of retaining existing roadside systems or transitioning at a faster rate towards in-car and decentralised systems.

This Master thesis can include an internship at Rijkswaterstaat or another external organisation, such as a traffic consultant

Research group

DiTTlab, Transport & Planning Department
Potential thesis supervisor: dr.ir. Simeon Calvert
Potential daily supervisor: dr.ir. Henk Taale

External support

Rijkswaterstaat

Information

Simeon Calvert - s.c.calvert@tudelft.nl
Henk Taale – h.taale@tudelft.nl