



Truck platooning implementation and impact assessment

Problem description

Automated and cooperative driving technology has allowed new concepts to be introduced to roads with Truck Platooning being mentioned as a promising concept. This involves trucks following each other with short time gaps to save fuel and therefore costs and emissions. Various pieces of research and pilots have been carried out to analyse the potential of truck platooning. Nevertheless, certain issues and uncertainties remain in regard to the broader impacts of truck platooning on traffic, infrastructure and logistics.

This project aims at investigating what the broader effects of truck platooning might be, what is currently known and what still needs to be researched.

Objectives & Assignment

The objective of this project is therefore to investigate and identify current knowledge gaps in research for truck platooning for full implementation and to perform impact assessment on data of a new on-road pilot to be conducted in 2021. Impact assessment should include the analysis of data and extrapolation of the findings on network level, possibly using traffic simulation. For some of the unknown impacts, recommendations should be given into how greater certainty can be gained. For other aspects, the student should set up methodologies to be able to estimate the potential impacts. These may include aspects such as optimal and feasible platoon length, infrastructure fatigue from lateral driving, and many others. The final product will include an overview of the current state of the art of impacts, current enablers and barriers to truck platooning implementation, and new insights into other impacts, as well as recommendations on how to unearth existing unknowns.

This Master thesis can also include an internship, for example with the Ministry of Infrastructure & Water, Rijkswaterstaat or TNO.

External support

Ministry of Infrastructure & Water / Rijkswaterstaat

Information

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