



## New traffic safety performance indicator

### Problem description

While the number of road accidents and fatalities continues to drop in The Netherlands and worldwide, this trend has slowed significantly, with still more than one million people killed on roads annually worldwide and with many more (seriously) injured. Therefore there remains an urgent necessity to continue to improve traffic safety and reduce the impact and number of accidents on roads. In traffic safety analysis, many indicators for safety exist. These are often applied to evaluate how safe certain traffic situations are, even in the case that accident do not occur. This therefore allows pro-active action to be taken to improve safety. Time-To-Collision (TTC) remains a commonly applied indicator, while it is increasingly recognised that it has major limitations due to it's inability to always detect dangerous situations. However, many other indicators are often too complex, while TTC is relatively simple and easy to use. The challenge that this leads to is the development of new indicator that I both simple in use, while effective in capturing road traffic safety

### Objectives & Assignment

The main objective of this project is therefore to design a new indicator for road traffic safety that is able to give an indication of the level of safety using the most commonly available traffic variables from data. This data may come from empirical studies or from simulation. To achieve this, research is required to evaluate the performance and existence of current indicators for their ease of use and level of performance. Thereafter, conditions should be derived for the development of a new indicator followed by the proposition of this or multiple possible indicators. These may also have different applications, such as for individual drivers or vehicles, evaluation of road infrastructure, or of general traffic patterns. They should then be evaluated and compared with existing indicators to give a further indication of their ability to evaluate traffic safety.

This Master thesis can also include an internship with an external organisation.

### External support

TBD

### Information

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