The cost of road crashes in the Netherlands

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Background & policy context:

Road crashes are responsible for significant social costs: in 2009 these costs were about € 12.5 billion in the Netherlands (Wit & Methorst, 2012). Wijnen and Stipdonk (2016) estimate, based on a comparison of road crash costs in several countries, that the share of these costs in national GDPs ranges from 1.5 to 6%. Because of the significant contribution of the costs of crashes in total social costs of road traffic, accurate and up-to-date information on their size and composition is desirable. This information provides an indication of the social-economic impact of road crashes and the level of traffic safety in a country. Furthermore, it provides the opportunity to compare the impact of crashes with other negative impacts of road transport (like congestion and emissions) or with the costs of road crashes in other countries. Finally, costs per victim and/or accident are useful indicators in social cost benefit analyses of traffic safety measures or road infrastructure projects.

The costs of road crashes are regularly assessed in the Netherlands. The most recent study is from Wit and Methorst (2012), which presents estimates of these costs for the years 2003, 2006 and 2009. In this study, it was recognised that for some cost items recent and reliable input data was missing and/or that methodologies were (at least partly) outdated. This was, for example, the case for the human costs of (particularly) injuries, production losses and non-claimed vehicle damage. As these cost items significantly contribute to the overall costs of road crashes, the lack of data and/or methodologies to accurately calculate their size seriously affects the estimate of the total costs of road crashes. According to Directive 2008/96/EC, (EC, 2008) all EU Member States are obliged to report their costs of road crashes every five year.

In this light, Rijkswaterstaat is planning an update of the 2012 study on the costs of road crashes. This new study should consider the years 2009, 2012 and 2015. To what extent it is desirable and possible to update the current input data and methodology is an issue for discussion, particularly because such an update may require significant research efforts and hence investments. These costs should be carefully considered against the additional quality and accuracy of improved estimates. European cooperation is important as well, as it may offer the opportunity to develop new methodologies in an efficient way and to achieve greater European harmonisation of estimates of the costs of road crashes. Because of these developments, Rijkswaterstaat has commissioned CE Delft and W2Economics to study the various options that are available to update the estimations of the costs of road crashes. The results of this study are discussed in this report.

Objectives:

The objective of this study is to identify and study relevant options to update the estimations of the social costs of road crashes in the Netherlands. More specific, the project aims to:
- discuss the scope, methodologies and data currently used in estimations of the costs of road crashes in the Netherlands and abroad;
- give a broad overview of possible scenarios to update the estimation of the costs of road crashes;
- from this broad range of scenarios select the most promising scenarios using a multi-criteria framework;
- carry out an in-depth analysis of the quality, costs and international dimension of these selected scenarios.

In this study, we will only consider road traffic crashes; other traffic related accidents are out of the scope of the study. Furthermore, this study does not provide new road crash cost estimates themselves, but is limited to assessing the most promising options to estimate these costs.
Methodology:
The study provides an overview of:
- the costs components that are included in costs studies according to international guidelines and international good practices;
- the (potential) size of each cost component relative to the total costs;
- the methods used to estimate each cost component.

Finally, it is compared the international practices with the latest study into road crash costs in the Netherlands, as an input for developing scenarios for a new road crash study.

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Partners:
Ministry of Infrastructure and the Environment

CE
Organisation: Delft
Oude Delft
Address: 180
Zipcode: 2611 HH
City: Delft
Contact country: Netherlands
Telephone: +31 (0)15-2150 150
Organisation Website: Delft
Documents: [thecostofroadtrafficaccidentsinthenetherlands.pdf](thecostofroadtrafficaccidentsinthenetherlands.pdf)

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