Measures for Behaving Safe in Traffic

Press release 17 August, 2017

MeBeSafe – Making traffic safer through behaviour-changing nudging measures

The EU-financed Horizon 2020 project MeBeSafe (Measures for Behaving Safely in Traffic) has successfully celebrated its kick-off. The project aims at reducing the number and severity of road accidents by directly changing our habitual traffic behaviour. Various "nudging" and coaching measures will be used to get tired drivers to take a break and cyclists to reduce their speed in intersections for example.

For most of us, navigating traffic is a very common activity and habitual, almost automatic. The project seeks to change this habitual behaviour and motivate drivers to preserving adequate traffic safety margins. Several nudging measures will be implemented in different facets of road transportation, mainly targeting drivers (of powered road vehicles), but also laying a secondary focus on cyclists.

The nudging concept, adapted from behavioural science, relates to subconsciously pushing humans to make a desired choice, without being prohibitive against alternative choices of action. By preserving our freedom of action and giving us choice, nudging measures are less intrusive and can be provided earlier in a chain of events that might lead to a critical situation.

The nudging measures will be implemented for in-vehicle Advanced Driver Assistance Systems (ADAS, existing or close-to-market) and remote measures like coaching, as well as through adaptive in-road surface displays.

The development of the measures requires a cross-disciplinary collaboration between technologists, behavioural scientists and traffic experts. We will prospectively be analysing the effectiveness of each nudging measure first by modelling, followed by controlled experiments and field trials.

The MeBeSafe project will develop and implement nudging and coaching measures in order to:

- **Achieve a long-term behavioural change through an online driver coaching scheme**, by feedback on the driver's safety performance, safely provided through an app or portal.

- **Combat a driver's lack of alertness and acute driving ability** by using visual warning signals and sound to get him to take a break.

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- **Motivate a driver to increase his use of Advanced Driver Assistance Systems (ADAS)** to keep a safe distance and show the benefits of the Adaptive Cruise Control (ACC).

- **Direct and heighten a driver's attention towards potential hazards**. Novel forecasting algorithms based on Artificial Intelligence will be used to determine a situational risk level.

- **Get drivers to adopt a safe speed and keep a risk-minimising trajectory on inter-urban roads**. Adaptive, emissive road markings/displays will be used in combination with roadside sensors and an infrastructure-based ADAS.

- **Motivate cyclists to reduce their speed when approaching risky urban intersections** by using a new type of rumble strip and interactive visual information.

- **Decrease the frequency of unplanned sudden braking, through coaching feedback of Heavy Goods Vehicle (HGV) drivers**.

About MeBeSafe
MeBeSafe is a € 7.1 million H2020 RIA project, granted by the European Commission and coordinated by the Institute for Automotive Engineering (ika), RWTH Aachen University. The project started on the 1st of May 2017 and will run for 42 months.

 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723430.

The consortium consists of 16 partners from the business, academic and research/technology sectors and includes automotive OEMs and suppliers, road infrastructure and fleet owners, SMEs involved in traffic data analysis, and leading organizations in traffic safety research and modelling.

Consortium partners:
Institute for Automotive Engineering (ika), RWTH Aachen University
Institute of Highway Engineering (isac), RWTH Aachen University
Chalmers University of Technology, SAFER (Vehicle and Traffic Safety Centre), Sweden
Volvo Car Group, Sweden
TNO, The Netherlands
Shell International BV, The Netherlands
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