



ADAS: from owner to user

Insights in the conditions for a breakthrough of Advanced Driver Assistance Systems

Nowadays, automotive brands advertise with smart systems, such as lane departure warning, emergency brake or distance alert. As of 2012, more and more cars are being sold with these systems. It suggests that these driver assistance systems are becoming increasingly commonplace. These systems not only provide comfort but are primarily designed to contribute to the safety of the driver and other road users.

Has driving become safer?

Research conducted by business drivers in the Netherlands has shown that Advanced Driver Assistance Systems (ADAS) are used to a limited extent. A lack of awareness of ADAS ownership currently appears to be the largest bottleneck for the breakthrough of ADAS usage. Many business drivers are not aware with which ADAS their car is equipped. When drivers are aware of owning a specific system they appear to be likely to use it. Even though it is not said that an increase of awareness of ADAS ownership will result in an equal increase in ADAS usage, it is expected that stimulating awareness of ADAS ownership will result in increased ADAS usage.

The lack of awareness of ownership of ADAS currently appears to be the largest bottleneck for the breakthrough of ADAS usage

Almost all business drivers reported that their car has been equipped with at least one of the ADAS in this study. Hence they were asked what had been the most important reason for their car being equipped with ADAS. The most common answers were that the ADAS were part of the car's default option or that the ADAS had been added for comfort. These are the key factors for explaining why one's car is equipped with ADAS. When questioned about how they learned about the functionality of the ADAS in their car, only 24% of the business drivers reported having received instructions regarding their ADAS at the car dealer. Roughly half of the business drivers (47%) has learned about their ADAS functionality by trial-and-error whilst driving. This showed to be the most common way of learning about the functionality, although learning by trail-and-error was not necessarily totally uninformed.

ADAS being part of the default option and ADAS added for comfort are the key factors for explaining why one's car is equipped with ADAS.

In addition to gaining more insight in owning and using ADAS, this study tried to bring a user's perspective to the variety of names given to ADAS. The consumer market for ADAS consists of ADAS with a similar functionality bearing different names and, vice versa, ADAS with similar names while having different functionalities. Questions about ADAS names, symbols for ADAS and the functionality of specific ADAS revealed that drivers' interpretations of ADAS names deviate from the functionality intended by the automotive industry. When interpreting ADAS' functionality, business drivers also have difficulties distinguishing between ADAS solely capable of informing or warning the driver and those also capable of intervening in the driving task. This underlines that the lack of uniformity in ADAS' names and functionality is indeed a shortcoming.

Consensus or guidelines on ADAS names, symbols, their functionality, and ease of access to this information, will likely improve consumers' understanding of the ADAS with which their car is equipped and what functionality they may expect from these systems.

The study focused on sixteen ADAS that may aid smart mobility. These involved Navigation (without traffic feed), Live Navigation (with traffic feed), Cruise Control, Adaptive Cruise Control (ACC), Speed Limiter, Intelligent Speed Adaptation (ISA), Lane Departure Warning, Lane Keeping Aid, Lane Change Merge Aid, Park Assist Pilot, Emergency Brake, Distance Alert, Traffic Sign Recognition, Intersection Assistant, Cross Traffic Alert and Traffic Jam Assistant. Not for all ADAS their availability in the car could be derived from the vehicle specifications. An example of an ADAS that could not be obtained is Intelligent Speed Adaptation (ISA). This is of particular interest since ISA has been the subject of transport policy in recent years.

More information

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Together with RAI, VZR, VMS|Insight and Autotelex, Connecting Mobility looked into the conditions for a breakthrough of Advanced Driver Assistance Systems (ADAS) usage.

This study combined an online survey under 1,355 business drivers with the vehicle specifications of their cars to provide insight into the full chain from ADAS owner to ADAS user. The results represent business oriented mobility in the Netherlands.



79%

of the cars in this study has a retail value between € 20,000 and € 50,000

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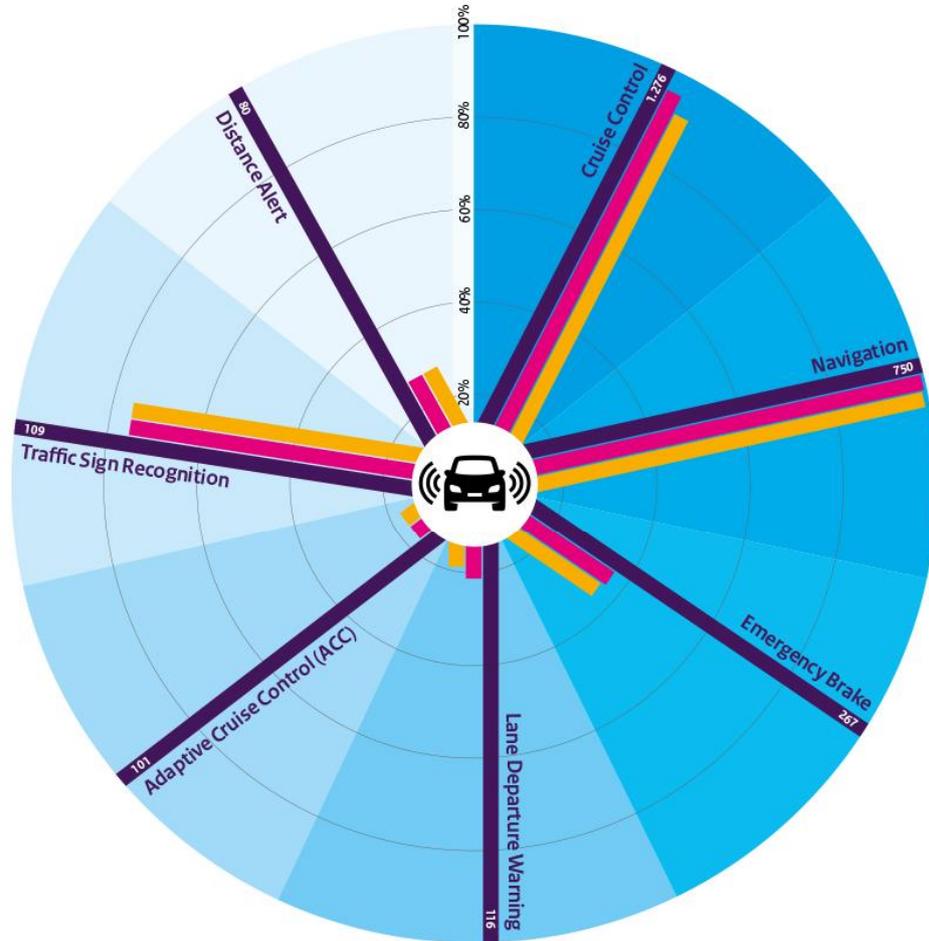


84%

of the cars in this study has been build between 2012-2016.

Compared to the entire Dutch fleet, the cars of business drivers are both relatively new as well as expensive and are more often equipped with ADAS. Henceforth this group of drivers is likely to have more experience with ADAS.

Use of Advanced Driver Assistance Systems (ADAS)



- Vehicle specifications show that the vehicle is equipped with this Advanced Driver Assistance System (ADAS) (total amount of owners = 100%)
- Business drivers aware of their vehicle being equipped with this ADAS (%)
- Business drivers who reported using this ADAS (%)

Conclusion

This research conducted by business drivers in the Netherlands has shown that Advanced Driver Assistance Systems (ADAS) are used to a limited extent. A lack of awareness of ADAS ownership currently appears to be the largest bottleneck for the breakthrough of ADAS usage. Many business drivers are not aware with which ADAS their car is equipped. When drivers are aware of owning a specific system they appear to be likely to use it. Even though it is not said that an increase of awareness of ADAS ownership will result in an equal increase in ADAS usage, it is expected that stimulating awareness of ADAS ownership will result in increased ADAS usage.

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