

3 May 2018

Dear [European Commission],

Safety concerns re: updates to UN Regulation 79 on steering equipment

I am writing you following the recent adoption by the UNECE of an amendment to UN Regulation 79 on steering equipment¹ and the expectation that the EU will incorporate this amendment in the forthcoming update of Annex IV to the current General Safety Regulation (661/2009).

While the amendment to the UN Regulation is primarily related to the approval of lane change assist systems, I would like to bring to your attention a more general concern around the safety risks resulting from driver overestimation of the abilities and limitations of advanced driver assist and semi-automated systems installed in their vehicles.

As a system designed to assist the driver, lane change assist systems are only required to verify whether it is safe to conduct a lane change by checking to the rear of the vehicle. The system expects the driver to have checked in front and to the side.

While this is in line with the philosophy of 'level 2' on the scale of (vehicle) automation, which states that the driver remains responsible for monitoring the driving environment, we question whether all drivers are aware that the system is a driver *assist* system and not an *automated* driving function.

There is a significant risk of drivers initiating lane changes without having checked in front and to the side of their vehicles as they may have expected the system to have done this. The lack of clarity for consumers about which areas the system is checking and which ones the drivers are supposed to check therefore poses serious risks.

Drivers' overreliance and lack of understanding of the limitations of level 2 systems have already contributed to several fatal collisions.²

¹ Proposal for the 03 series of amendments to UN Regulation No. 79 (Steering equipment)
ECE/TRANS/WP.29/2018/35

² For example: US NTSB Accident Report PB2017-102600 involving a Tesla vehicle: <https://goo.gl/uLHTCH>

Before the process of integrating the updated UNECE rules on steering systems into EU law takes place, we would like your response to the following questions regarding the Commission's safety assessment of such systems:

1. Has the Commission examined the perception by drivers of the abilities and limitations of different ADAS technologies and what safety risks are posed by driver overestimations?
2. What regulatory measures has the Commission taken or will it take to ensure that drivers of vehicles with advanced driver assist systems on-board are properly informed about the systems' abilities and limitations as well as their responsibilities as driver?
3. How will the Commission ensure that all potential drivers are informed about the systems' abilities and limitations, and not merely the purchaser of the vehicle i.e. when taking delivery of a new vehicle? Other drivers may include other family members, rental car drivers, second-hand purchasers etc.

The lane change assist function is only one example of an assist system that can easily be perceived incorrectly by drivers as an automated function. Similar concerns can be raised for other assist systems as well, notably the smart lane change assist systems.

Envisaged as an ACSF of category D, the smart lane change assist system would indicate to the driver when a lane change is possible, but the vehicle would only change the lane following confirmation by the driver.

ETSC is concerned that this system would also pose significant safety risks due to driver overestimation, notably if regulated as a level 2 system. As such, the system would check in every direction whether it is safe to make a lane change manoeuvre and could therefore easily be perceived by the driver as an automated driving function. However, as a level 2 system the driver would remain responsible for supervising and verifying the operation of the system.

Therefore, with the system acting like an automated driving function, the drivers may not realise that they remain responsible for verifying whether the manoeuvre as suggested by the system can be executed safely.

Regulating it as a level 3 system is also undesirable, as for that level of automation the driver is merely the fall-back option. Having the driver actively involved in the operation of a level 3 system would lead to confusion and contradiction with regards to the drivers' responsibilities at different levels of automation.

ETSC therefore calls on the Commission and Member States to ensure that ACSF category D is not regulated at UNECE level nor approved for sale in the EU. Instead, ETSC urges for that development time to be used on preparing category E in order to ensure that future 'highway chauffeur' systems are tested against the highest possible safety standards.

Finally, we would like to underline again the need for a comprehensive review of the type approval procedures in light of automated driving, particularly given the impending advent of technologies that provide Level 3 and Level 4 support, which would include the offering of hands-off driving.

Pending a more comprehensive approach, ETSC would like to see the current exemption procedure for the type approval of new vehicle technologies to be used as a short-term solution and furthermore significantly improved with regards to transparency, as set out in more detail in our previous letter.³ I would be happy to further explain or discuss our position in a meeting, either in person or over the telephone.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Antonio Avenoso', with a long horizontal flourish extending to the right.

Antonio Avenoso, Executive Director
European Transport Safety Council

³ ETSC Letter to the Commission on Improving the Transparency of the Exemption Procedure for the Type Approval of New Vehicle Technologies. Since published on our website at: <https://goo.gl/ChMwXf>