

Country: Denmark

Working Party: Automated/Autonomous and Connected Vehicles (GRVA)

Topic: German proposal for a regulation regarding Urban Emergency Braking System¹ (UEBS) – Provisional agenda item 7

14-09-2022

Position paper - Danish position on proposal on UEBS from Germany

For the 14th session of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA), Germany has submitted a proposal for a regulation regarding Urban Emergency Braking System (UEBS) for vehicle categories M2, M3, N2 and N3 vehicles. However, Denmark cannot support the German proposal in its current version. The reasons are elaborated below.

Germany proposes that heavy duty vehicles can be equipped with a detection system (UEBS), which automatically brakes for vulnerable road users if overlooked by the driver. With the proposed UN Regulation, the direct vision regulation under the purview of the Working Party on General Safety provisions (GRSG) could be amended so as to have different performance criteria for vehicles equipped with this UEBS. Denmark considers the state of the technology in question inadequate to fulfill the level of safety required for the intended purpose.

In order to achieve the European goal of Zero road fatalities in 2050 (Vision Zero), measures should not be adopted if they can dilute the safety of vulnerable road users in other proposals such as the regulation under the purview in GRSG as mentioned above.

Denmark would support the proposal as a supplement to the requirements in the regulation on direct vision but not as an amendment to the regulation on direct vision. Instead, Denmark proposes to amend UN Regulation No. 131 and UN Regulation No. 152 on conventional Automatic emergency Braking System (AEBS) or at least the UN-regulation No. 131 regarding AEBS on heavy duty vehicles.

Denmark would also like to draw attention to the following concerns regarding the proposal from Germany:

- The definition of a cyclist, referring to ISO standard 19206-4:2020, is in our view not sufficient. The standard does not cover special bicycles. In urban areas, there are a high number of parents bicycling with their children sitting in the front of either a three wheeled bicycle or in between the front and rear axle on a long bicycle with a long-wheelbase. Some parents also use a bicycle trailer behind their ordinary bicycle.
- In the proposal, cyclist and pedestrian are mentioned in singular and not in plural. We are interpreting this as the UEBS is not obliged to detect groups of cyclists or pedestrians similarly with the conventional Automatic Emergency Braking System, which is not obliged to detect groups of cyclists or pedestrians. This can cause a safety

¹ (ECE/TRANS/WP.29/GRVA/2022/24)

risk for these road users. In Denmark cyclists often merge into groups e.g. waiting for the traffic signaling to change color.

- Other types of vulnerable road users are not mentioned in the proposal. For example, disabled people in wheelchairs, electrified scooters, one wheelers, skateboards or mopeds. Therefore, the system may not be able to detect these types of vulnerable road users.
- The travel speed mentioned for pedestrians (5 km/h) and cyclist (15 km/h) are in our view too low. In an urban environment in Denmark, pedestrians can have a speed up to 10 or 15 km/h, e.g. running speed. Denmark also has a significant number of electrified bicycles, which can travel up to 20 or 25 km/h.
- In the proposal, heavy duty vehicles can drive at least two seconds in a straight line before it is obliged to detect a vulnerable road user. The Danish interpretation of this is that the UEBS is not obliged to detect and react to vulnerable road users in curves, which can cause an accident risk for vulnerable road users. A human driver will turn the head to follow the course of the curve.
- Finally, the UEBS is not obliged to be active under windy conditions or at ambient temperatures below 0 °C.