

Frontal protection in buses

After our presentation of the document [Informal document GRSP-73-22](#) at the May meeting of GRSP, it was decided that member countries should **provide feedback on accident** situations related to bus collisions in their respective countries at the next GRSP meeting in December.

Here are accident data from Norway - this information provides an overview of the severity of head-on collisions involving buses from **2013 to 2022**.

Number of fatalities:

- A total of **7 bus drivers lost their lives** in head-on collisions.
- Additionally, 4 individuals from the opposing vehicles were killed.

2013 - Bus vs. bus: 2 passengers were killed.

2014 - Bus vs. two trucks traveling in the opposite direction: The bus driver and 2 passengers were killed.

2015 - Bus vs. van: Both drivers were killed.

2017 - Bus vs. truck: The bus driver was killed.

2017 - Bus vs. bus: One bus driver was killed, and the other bus driver was also seriously injured.

2020 - Bus vs. car: Both drivers were killed.

2021 - Bus vs. bus: The bus driver was killed.

2022 - Bus vs. bus: One bus driver was killed, and the other bus driver was also seriously injured.

Serious injuries:

- 3 bus drivers sustained **serious injuries** in head-on collisions.

Minor injuries:

- A total of 37 bus drivers suffered minor injuries in head-on collisions.
- The minor injuries were sustained in various types of accidents involving different opposing vehicles, including cars, buses, trucks, tractors, vans, campers, lightweight motorcycles, tracked vehicles, and semitrailer tow trucks.

These are tragic incidents resulting in loss of lives, and they likely had severe consequences for the families involved and the community as a whole. It is essential to continuously work on traffic safety measures and training to reduce the number and severity of such accidents and protect lives on the roads.

From our perspective, front protection on buses will be a significant factor for traffic safety, particularly in minimizing injuries in the event of collisions with other vehicles.

We are uncertain about accident data in Europe regarding this type of accidents. Therefore, we have decided to conduct a study to assess the extent of such accidents in Europe. We will focus on injuries to drivers and buses. The findings from this assessment will serve as the basis for a subsequent comprehensive technical study, which will include specific proposals to enhance collision safety for buses within an overall traffic safety perspective. The study will also incorporate a cost-benefit

analysis, comparing the traffic safety effects of existing and upcoming active and passive safety systems against the additional costs of further improving collision safety in buses.

To conduct this work, we plan to engage an external entity.

Proposal for Further Work

Due to the numerous accidents, we propose initiating work on developing regulations regarding frontal collisions involving buses. This could involve either adapting existing standards like ECE-29 or ECE-93 to also cover buses, or alternatively, creating a new ECE regulation specifically for buses.