

## **Frontal protection in buses – for information only**

We have raised this issue - frontal protection in buses - twice in GRSG and once in GRSP. We believe this should also be followed up in the GRSG even if it concerns passive safety. GRSG already has ECE-66 in its portfolio, which is also a passive safety measure.

After our presentation of the proposal at the May meeting of the 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. This will form the basis for assessing whether frontal protection in buses should be an important measure to enhance overall traffic safety - potentially taking priority over other traffic safety measures. We believe that it is always crucial to evaluate which measures provide the greatest traffic safety.

We are uncertain about accident data in Europe when it comes to this type of accidents. Therefore, we have proposed to conduct a study to assess the extent of such accidents in Europe. We are now awaiting final approval from our Ministry of Transport.

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

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.

Our steps are as follows:

- **Data Collection**  
Contact relevant authorities, such as traffic agencies, transport departments, and statistical bureaus in EU and EEA countries, to obtain accident statistics related to bus collisions  
Request data that include accident types, severity, injuries to drivers and passengers, and other relevant information
- **Literature Review**  
Conduct an extensive review of existing research and literature on bus collisions and collision safety in Europe. This can help identify prior findings and gaps in current knowledge
- **Analysis and Comparison**  
Analyse the collected data to identify trends, patterns, and critical factors related to bus collisions in various European countries.  
Compare accident statistics and collision safety levels across countries to assess the scope of the issue
- **Technical Study**  
Based on the data and analysis, develop a technical study that includes concrete proposals to enhance collision safety for buses  
  
Consider both active safety systems (such as collision warning systems) and passive safety systems (such as airbags and reinforced vehicle structures)

- **Cost-Benefit Analysis**

Conduct a comprehensive cost-benefit analysis to evaluate the potential benefits of implementing the proposed collision safety measures compared to the additional costs. Include the traffic safety impact of existing and forthcoming safety systems

- **Reporting and Presentation**

Prepare a comprehensive report summarizing the study's findings, conclusions, and recommendations, Present the study's results at an appropriate forum that GRSG/GRSP meetings to inform member states of the need for enhanced crash safety in buses across Europe.

We acknowledge that this is a substantial undertaking, but we believe it is essential for improving traffic safety for bus passengers and drivers in Europe. We hope that such a study will contribute to raising awareness of the importance of collision safety measures for buses.

We ask that this issue be kept on the agenda so that we can keep the GRSG informed of the results of this study.