

## Proposal for amendments to ECE/TRANS/WP.29/GRVA/2021/8 as amended by informal document GRVA-09-37

Proposal for a Supplement to the 02 and 03 series of amendments to UN Regulation No. 79 (Steering equipment)

This document reflects the outcome of the discussions during the Task Force on Advanced Driver Assistance Systems, addressing ACSF B1 systems prescribed in UN Regulation No. 79. The changes proposed to the 02 and 03 series of amendments to UN Regulation No. 79 are indicated in blue.

### I. Proposal

Paragraph 5.6.2.2.3., amend to read:

“5.6.2.2.3. When the system reaches its boundary conditions set out in paragraph 5.6.2.3.1.1. of this Regulation (e.g. the specified maximum lateral acceleration  $a_{y_{\max}}$ ) and both in the absence of any driver input to the steering control and when any front tyre of the vehicle starts to cross the lane marking, the system shall ~~continue to provide assistance and shall~~

- Clearly inform the driver about this system status by an optical warning signal and additionally by an acoustic or haptic warning signal, and
- in case the specified maximum lateral acceleration  $a_{y_{\max}}$  is reached, continue to provide assistance as long as the system is still able to determine the original lane of travel and avoid sudden loss of steering support when terminating the assistance.

The fulfilment of this provision and corresponding safety strategies shall be subject to discussion and agreement between the Technical Service and the vehicle manufacturer as part of the assessment according to Annex 6.

For vehicles ... UN Regulation No. 130.”

### II. Justification

1. The intention of the proposed amendment is to clarify the existing text on continued support of an Automatically Commanded Steering Function of Category B1, if the boundary conditions are exceeded. It shall be clarified that under certain circumstances, e.g. if there are no lane markings present, or if the vehicle has already drifted substantially out of the lane, the lane may no longer be recognized, a continuation of support may no longer be possible or reasonable.

2. During the meetings of TF-ADAS the industry proposal GRVA-09-37 was further reviewed and commented. This proposal reflects the latest outcome of the consultation between Contracting Parties and industry in order to clarify the system capabilities and expected behaviour when the system reaches its boundaries. Industry proposed the above new wording (blue) which better captures the necessary criteria ( $a_{y_{\max}}$ , original lane of travel) and the intention (avoid sudden loss of support) of paragraph 5.6.2.2.3.

3. The proposed wording is partly inspired from the EU General Safety Regulation (GSR) for Emergency Lane Keeping System (ELKS): “...*Significant loss of steering support once overridden shall not happen suddenly...*” / document ADAS-04-02.