

Automated Vehicles – Regulatory Screening (AVRS) of UN Regulations and GTRs under responsibility of GRSG

Background

- At the 123rd meeting of GRSG, held from 28 March – 1 April 2022, the secretary, on behalf of WP.29, asked the group to start evaluating the UN Regulations and GTRs falling under the responsibility of GRSG
- A Taskforce was formed (GRSG-TF-AVRS)

XVI. Exchange of Views on Vehicle Automation (agenda item 15)

Documentation: Informal document: [GRSG-123-35](#)

60. The Chair of GRSG reminded the experts of the group about request of WP.29 to all GRs to perform a screening of the UN Regulations and UN GTRs of relevance which were linked to drivers, to accommodate for automated/autonomous driving (see ECE/TRANS/WP.29/1164 paragraphs 27. to 30.). The secretary of GRVA informed GRSG about the current activities of Automated Driving Systems and he indicated the main reference documents for the request of WP.29:

(a) [WP.29-186-08](#);

(b) [WP.29-186-09](#);

(c) The consolidated framework document published as a web brochure:

<https://unece.org/transport/publications/framework-document-automatedautonomous-vehicles-updated>

(d) A brochure describing past technological developments and the corresponding activities of WP.29:

<https://unece.org/transport/publications/all-you-need-know-about-automated-vehicles>

61. Moreover, the expert from OICA introduced GRSG-123-35 showing a state of play on autonomous driving deliberations of GRVA into the work of GRSG.

62. GRSG noted that the expert from the Netherlands would contact interested parties to seek cooperation in the activities of a task force to revise UN Regulations and UN GTRs in the responsibility of GRSG, vis-vis vehicle automation.

Overview

GRVA-14-41

List of UN Regulations under responsibility of GRSG (38x +2x GTR)

<i>UN Regulation No.</i>	<i>Title</i>	<i>Affected</i>	<i>Remarks</i>
18	Uniform provisions concerning the approval of motor vehicles with regard to their protection against unauthorized use		
26	Uniform provisions concerning the approval of vehicles with regard to their external projections		
34	Uniform provisions concerning the approval of vehicles with regard to the prevention of fire risks		
35	Uniform provisions concerning the approval of vehicles with regard to the arrangement of foot controls		
36	Uniform provisions concerning the approval of large passenger vehicles with regard to their general construction		
39	Uniform provisions concerning the approval of vehicles with regard to the speedometer and odometer equipment including its installation		
43	Uniform provisions concerning the approval of safety glazing materials and their installation on vehicles GTR-6		
46	Uniform provisions concerning the approval of devices for indirect vision and of motor vehicles with regard to the installation of these devices		
52	Uniform provisions concerning the approval of M ₂ and M ₃ small capacity vehicles with regard to their general construction		

Etc.

GRSG-TF-AVRS proposes the following approach:

Two-step approach:

1. A) Is the Regulation or parts thereof still applicable to automated vehicles ?
(e.g. UN R121 – do you still need tell tales in case there is no driver)
B) What alternative requirements would apply if Q1 is (partly) answered with a “no” ?
2. Screen all Regulations for wording like: “driver”, “steering control”, etc. and amend to cover ADS vehicles of the 4 types mentioned in sheet 7.

GRSG-TF-AVRS proposed approach:

- Statement: despite their innovative designs, vehicles with ADS technology must continue to provide the same high levels of (occupant) protection that current (passenger) vehicles provide
(see NHTSA Final Rule on “Occupant Protection for Vehicles With Automated Driving Systems” (see link [here](#)) already established)
Each Regulation needs to be updated bearing this in mind.
- GRSG needs to consider R.E.3 and S.R.1. which are under the umbrella of GRSG
- Include new definitions: see [WP.29-186-08](#).
New definitions needed for: driver, remote driver, remote operator, user in charge ? Input from FRAV-31-05 ?
- Option to introduce new categories of vehicles in order to minimise the impact to existing Regulations. See also EU approach in [EU delegated act](#)
Which categor(y/ies) does GRVA consider, if any ?

Types of Automated Vehicles to be considered:

GRSG-TF-AVRS plans to consider:

1. ALKS-like passenger cars of L3
2. Dual-mode fully automated vehicles of L4
3. Fully automated vehicles of L5 with manual driving capabilities (with and without occupants, manual mode up to and above 6 km/h)
4. Fully automated vehicles of L5 without manual driving capabilities (with and without occupants)

any comments/input from GRVA is appreciated

Way forward:

GRSG-TF-AVRS would like to:

- Receive input from GRVA whether right approach is chosen
- Receive input on the **red-highlighted** questions
- Align with other GRs which have to perform the same task.
Therefore it is important to understand the proposed way forward from GRVA perspective.

**Thank you for your input
and for your attention !**