### Informal document WP.29-185-17

185<sup>th</sup> WP.29, 23-25 November 2021 Agenda item 2.2.



## EU Work Programme - UNECE activities 2022-2023

Proposals under the responsibility of DG GROW (Internal Market, Industry, Entrepreneurship and SMEs)

## SAFETY AND AUTOMATED/CONNECTED VEHICLES

## 1.1. Automated and connected vehicles (GRVA)

## 1.1.1. Extension of the ALKS regulation to cover higher speed and lane change function (motorway chauffeur)

The purpose is to update the new Regulation on Automated Lane keeping system (ALKS) to cover highway chauffeur. This includes higher speed (up to 130 km/h) than the current UN Regulation on automated lane keeping (which +is limited to 60 km/h). It should also cover lane change functions as well trucks and shall update DSSAD requirement if needed.

If Contracting parties to the 1998 agreement are interested, consideration of a Global Technical Regulation (GTR) could also be considered at a later stage based on the current discussion in the informal groups on a new assessment and validation method (VMAD) and on functional requirements for automated vehicles (FRAV)

Target date for WP29 vote: Q2 2022

# 1.1.2. UN regulation on advanced driver assistant systems/Simplification of Regulation 79

The purpose is to develop a new way to assess advanced driver assistant systems, in particular combing longitudinal and lateral control, that is more future proof than the current approach in Regulation 79. This should lead to a simplified Regulation 79.

Target date for WP29 vote: Q4 2022

# 1.1.3. Amendment to Regulation 79 and Regulation 130 on Emergency Lane Keeping Assist Systems (ELKS)

The revised General safety Regulation mandates ELKS for cars and vans. Commission Implementing Regulation (EU) 2021/646 has been adopted accordingly. There might be the will of contracting parties and stakeholders to

also cover ELKS at UNECE level. It could be done by an update to UN regulation 79 and UN Regulation 130.

Target date for WP29 vote: Q1 2023

### 1.1.4. Advanced Emergency Braking systems (AEBS)

The revision of Regulation 131 (AEBS for trucks) is on-going. The aim is to make the regulation more robust and to align it with new concepts developed for Advanced Emergency Braking Systems (AEBS) for cars and vans (UN Regulation No. 152) in particular regarding pedestrians and cyclists.

Target date for WP29 vote: Q3 2022 (Amendment to Regulation 131)

### 1.2. Working group on general safety (GRSG)

#### 1.2.1. Amendment to New Regulation on Event (Accident) Data Recorders

Event data recorders will be crucial to assess the circumstances of an accident of an automated vehicle, in particular who was driving and if the driver/vehicle reacted appropriately. The amendment intends to update the regulation to cover ALKS equipped vehicles.

Target date for WP29 vote: Q2 2022

# 1.2.2. Amendments to the new Regulation on Event (Accident) Data Recorders to cover automated vehicles and heavy vehicles

The data relevant for automated driving were left for stage II of the regulation. The purpose of this amendment to fill this gap. Further work on definition of EDR triggers is also envisaged.

Another stream of work is likely to concern EDR for Heavy Vehicles (under GSR, technical requirements on heavy vehicles will become applicable on 2026 for new vehicle type).

If Contracting parties to the 1998 agreement are interested, consideration of a Global technical Regulation could also be considered at a later stage.

Target date for WP29 vote: Q1 2023 on EDR for Heavy Duty Vehicles

## 1.2.3. Awareness of Vulnerable Road Users proximity in low speed manoeuvres (VRU-Proxi)

The revision of the General Safety Regulation will require detection systems for VRU in front and to the side of truck cabs and buses as well as improved direct visibility by drivers through larger windows. It will also mandate reversing cameras or alternative systems that detect presence of pedestrians/cyclists. Work has progressed well in the informal working group VRU-Proxi in GRSG and most topics have been completed in the form of three new UN Regulations. Direct vision of heavy duty vehicles is set to be finalised in October 2021 on working group level. Efforts are needed to ensure technology neutrality and addressing regulatory issues or technical progress beyond the target adoption date in 2023.

Target dates for WP29 vote: truck/bus direct vision Q4 2022

## 1.2.4. UN Regulation 125 on Forward Field of vision, to expand the scope to N1 category of vehicles and to introduce Field of Vision Assistant (FVA)

The extension to N1 categories of vehicle was approved at GRSG October 2021 session and will be presented to WP29 March session. The element concerning partitioning system are to be discussed further at EU level to determine if a revision in UN regulation 125 is needed for these systems used in N1 categories of vehicle.

The introduction of the Field of Vision Assistant into UN regulation 125 is proposed in two steps. The first step provided general requirement for the type approval of such systems, to catch-up with existing systems. The second step will provide detailed technical requirements and test procedures.

With the creation of an informal working group for FVA, and the limitation due to the scope of UN regulation 125 (M1 and N1 vehicle) the IWG will consider the preparation of a new regulation to encompass N2/N3 and M2/M3 categories of vehicle for the FVA systems.

Target date for WP29 vote: Q1 2022 (extension to N1) and Q1 2023 (step 2 and possible new regulation)

## 1.3. Working group on passive safety (GRSP)

#### 1.3.1. Pedestrian Safety

Enlargement of the head impact zone to include the windscreen area in UN regulation No 127, linked to revision of the General Safety Regulation. Work and input will be required beyond the target adoption date to amend GTR No 9 as a result of the changes on 1958 Agreement level. This work should be projected to last into 2023.

Target date for WP29 vote: Q2 2022

#### 1.3.2. Safety of Electric Vehicles

Development of phase 2 of GTR 20 with a particular focus on the selection of the main thermal initiation and propagation test procedures, improvement of gas detection procedures and improvement of the vibration profile. These updated requirments will be consequently transposed in UN regulations Nos 100, 94, 95, 137 and 153.

Target date for WP 29 vote: Q2 2023

## 1.3.3. Hydrogen (Fuel Cell) Vehicle Safety

Development of Phase 2 of GTR No 13 with material qualification requirements, new technologies, new vehicle categories and adaptation to technical progress. Work will continue beyond the target adoption date in order to ensure the subsequent transposition into UN regulation No 134 that applies directly in the EU.

Target date for WP29 vote: Q4 2022

#### 1.3.4. Children transported in buses

The Commission shares the view expressed by various Contracting Parties as well as the European Parliament that children must be well protected in buses

and that the normal use, by children, of standard adult safety belts is not optimal in terms of provided safety. Work has commenced in the IWG on safer transport of children in buses and coaches, looking specifically into these matters. The progress on developing a technical solution will depend on thorough analysis of available safety data.

Target date for WP29 vote: Q2 2023

#### 1.3.5. Gender, size and age neutral crash safety

Studies based on real world accident data have shown that injury outcome in the event of a crash can differ related to both biological gender, size and age of the occupant, and why these differences are thought to occur. A new IWG (to be set up in December 2021) will review existing passive safety dummies and their capability to reflect the different injury patterns from field data analysis. It will be investigated if current safety regulations are sufficiently flexible to allow the development of advanced adaptive systems where higher safety for different occupants can be achieved. Necessary amendments to crash regulations should be anticipated.

Target date for WP29 vote: Q2 2024

## 1.4. Working group on lighting (GRE)<sup>1</sup>

# 1.4.1. Revision of the existing requirements concerning the electro-magentic compatibility (EMC)

Further development of EMC requirements (07 SoA of UN Regulation 10), updating existing requirements and introduction of new provisions for adaptation to technical progress, notably in the light of the mass market deployment of electric vehicles.

Target date for WP29 vote: Q4 2023

#### **EMISSIONS**

1.5. Working group on emissions from motor vehicles (GRPE)<sup>2</sup>

#### 1.5.1. IWG on Global Real Driving Emissions (RDE) to create a new UN-GTR

The EU continues to fully support the activities of GRE related to the Introduction of performance based requirements for lighting and light-signalling regulations (Stage 2 of the Phase 2 of the simplification focusing on the installation Regulations Nos. 48, 53, 74 and 86 with a view to render them future proof and technology neutral, with performance based and objective test requirements)

<sup>&</sup>lt;sup>2</sup> A common task force between GRBP and GRPE will address the issue of tyre abrasion and particles from tyre/road wear (2<sup>nd</sup> phase, beyond 2023).

The Global Technical Regulation (GTR) will go directly to the second phase of development with the aim to make it more widely applicable.

Target date: June 2023 for new GTR to be submitted to GRPE

# 1.5.2. Follow-up of the work of the PMP group (including the sub-23 nm, brake wear)

Finalise the development of a methodology for limiting brake wear emissions with a new GTR on brake wear emission.

Target date: end 2022

#### 1.5.3. Electric Vehicles and the Environment (EVE)

Second phase of the development of the GTR on in-vehicle battery durability.

Target date: June 2023

#### 1.6. Working group on sound emissions and tyres performance (GRBP)

#### 1.6.1. Tyre Pressure Monitoring TPMS

Amendment to introduce requirements for all M, N, O3 and O4 categories in UN regulation No 141, linked to revision of the General Vehicle Safety Regulation.

Target date for WP29 vote: Q1 2022

#### 1.6.2. Test on worn tyres

New test on wet grip of worn tyres (also linked to revision of the General Vehicle Safety Regulation

Target date for WP29 vote: Q1-Q2 2022 for C1 tyres, Q1 2023 for C2 and C3 tyres

#### 1.6.3. Additional Sound Emission Provisions (ASEP)

New testing requirements for ASEP (Additional Sound Emission Provisions)

Target date for WP29 vote: Q42023 for L-category vehicles and replacement exhausts, Q2 2022 for M- and N-categories' vehicles,

#### 1.6.4. New definition of radial tyre in UN R30

New definition of radial tyre to include the possibility of innovative tyre structure approved under the EU legislation procedure for components with innovative technology.

Target date for WP29 vote: Q4 2022

#### 1.6.5. Tyre abrasion test method development

New UN Regulation on microplastics from tyres, including: method for rating tyres based on their abrasion performance; enabling the quantification of microplastic emissions from tyres; investigating correlation between abrasion rate and durability of tyres.

First draft to GRBP/GRPE<sup>3</sup>: Q4 2023

## 1.6.6. New wet grip limits for C1 tyres in new state

UN R117 amendments to introduce new limits for C1 tyres' wet grip in new state.

Target date for WP29 vote: Q1 2023

## 1.6.7. New rolling resistance limits of tyres in new state

UN R117 amendments to introduce new limits for tyres' rolling resistance in new state.

Target date for WP29 vot+ e: Q1 2023

<sup>3</sup> A common task force between GRBP and GRPE will address the issue of tyre abrasion and particles from tyre/road wear (2<sup>nd</sup> phase, beyond 2023).