

Proposal for changes of the original Task of TF “AVSR”

I. Proposal

A. Proposal for changes of the original Task of TF “AVSR”

Add new items (in bold) to the original Task:

Task:

- a) Is there a safety requirement for AV's to provide signals to indicate their status and to communicate their next intended actions?*

If so, shall such signals

- *be visual,*
- *audible,*
- *or a combination?*

- b) **Develop a proposal for necessary changes of R 48 in the context of driver assistance systems, advanced driver assistance systems and autonomous vehicles to implement the alternative switching of light signalling functions independently of the driver by separate technical units.***

Task a and b are considered equivalent. Task b has priority as long as the required input from GRVA/ FRAV is missing.

II. Justification

1. On 2 December 2021, the Federal Motor Transport Authority granted the world's first type approval in the field of automated driving for an Automated Lane Keeping System (ALKS) for a model of the manufacturer Mercedes-Benz.

The basis is UN Regulation No. 157, which defines internationally harmonised safety requirements for automated lane-keeping systems. This type approval for automated driving granted by the KBA is an important first step on the road to automation, as Richard Damm, President of the KBA said on the occasion of the granting. The KBA sets national, European and international standards for road safety on the road to autonomous driving. This is the key point, because it requires consumer confidence in the safety of the new technologies. In order to create this trust, we have applied a strict standard, which we, as pioneers in this field, will also adhere to further down the road, Richard Damm continues.

The automatic lane-keeping system - ALKS - is classified as "Level 3" automation. This is an automated mode in which the driver does not have to constantly monitor the system. UN Regulation No. 157 still limits the use of ALKS in its current form on motorway-like roads up to a speed of 60 km/h. The use of ALKS on motorway-like roads is not permitted. Under this condition, the driver can perform non-driving activities with the ALKS function switched on. However, the driver must be prepared at all times to resume driving after being requested to do so.

2. The number of type approvals for automated and autonomous driving vehicles will increase rapidly. Without rapid adaptation of R 48, the entire regulation may become less relevant in the long run as alternative regulations are developed somewhere else.
3. One example for this is : “ANNEXES to the Commission Delegated Regulation (EU) 2022/... amending Annexes I, II, IV and V to Regulation (EU) 2018/858 of the European Parliament and of the Council as regards the technical requirements for vehicles produced in unlimited

series, vehicles produced in small series, **fully automated vehicles produced in small series** and special purpose vehicles, and as regards software updates” which will probably come into force on 6th of July 2022¹.

This includes the: “Annex II, Part I, Appendix 1 to Regulation (EU) 2018/858, containing the requirements for EU type-approval of vehicles produced in small series is amended and complemented to take into account Regulation (EU) 2019/2144 and the delegated acts and implementing acts adopted pursuant to it. In addition, the requirements for the EU whole vehicle type-approval of fully automated vehicles produced in small series are set out in a new Table 2 to that Appendix.”

4. This example contains in Table 2 requirements as follows:

“D15 Installation of light signalling, road illumination and retro-reflective devices Regulation (EU) 2019/2144 A (*which refers in general to UN-R 48*)

Definition of: X (for manual driving mode) // A (for fully automated driving mode)

Additional requirements: The requirements shall remain the same, but in case of malfunctioning, the information shall be sent to ADS and the remote intervention operator (if applicable).

The activation of the lights is managed by the ADS.

For bidirectional vehicles, requirements shall be met in both directions unless it is incompatible with the use in agreement with the type-approval authority.”

5. Therefore Germany proposes to adapt the regulations on R 48 as soon as possible and the changes of the original Task of TF “AVSR”. This should not include only the necessary changes of R 48 to allow the alternative switching of light signalling functions independently of the driver. All other future discussions, such as the need for telltales for autonomous vehicles, should be discussed in time in the relevant working groups (e.g. GRVA/FRAV).

¹ [https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=PI_COM:Ares\(2022\)2077610](https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=PI_COM:Ares(2022)2077610)