Report of the TF on ADAS for the 17th GRVA session
Status after the 16\textsuperscript{th} GRVA session

- Two online meetings (26-27 June 2023, 25 & 27 July 2023)
- Hybrid meeting (Geneva, 28-30 August 2023)
- L2 “Hands-off” online workshop (26 July 2023)
- L2 demonstration trial (U.S., 17 July 2023)
- Eight online meetings and one in-person meeting (Paris, 13-14 June 2023) of the Small Drafting Group

- The draft DCAS UN Regulation is in the agenda of the 17\textsuperscript{th} GRVA session
  - Not finally agreed by the ADAS TF working document ECE/TRANS/WP.29/GRVA/2023/20 with square brackets
  - Informal document GRVA-17-05 amending ECE/TRANS/WP.29/GRVA/2023/20, indicating the progress of discussions at the ADAS TF till now – still interim document, not ready for adoption by GRVA

- Development of the corresponding draft amendments to UN Regulation No. 79 to segregate its scope and the scope of the DCAS UN Regulation

- Link to the TF documents: [https://wiki.unece.org/display/trans/ADAS](https://wiki.unece.org/display/trans/ADAS)
Submissions to the 17\textsuperscript{th} GRVA session

- The report of the activities of the ADAS TF since the 16\textsuperscript{th} GRVA session (this presentation);
- The draft DCAS UN R:
  - Working document ECE/TRANS/WP.29/GRVA/2023/20;
  - Informal document GRVA-17-05 amending the working document ECE/TRANS/WP.29/GRVA/2023/20;
  - The detailed presentation of the content of the draft DCAS UN R (GRVA-17-12);
  - Issues to seek guidance from GRVA (presentation GRVA-17-11);
- Corresponding draft amendments to UN R 79 to differentiate the scope of UN R 79 and the draft DCAS UN R (GRVA-17-07).
Progress with drafting the DCAS UN Regulation

- The agreed content of the draft DCAS UN Regulation:
- Reviewed sections close to finalization:

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Annex 1 - Communication
Annex 2 - Arrangements of approval marks
Annex 3 (plus appendixes) - Audit
Annex 4 - Physical Test Specifications for DCAS Validation
Annex 5 - Principles for Credibility Assessment for using Virtual Toolchain in DCAS Validation
DCAS UN Regulation Drafting Process

Updated Timing

Stage 1
• overview and restructuring
• identify issues (redundancies, contradiction with principles, interpretation...) to be solved on the Stage 2

Stage 2
• detailed review
• agree on content of the requirements

Stage 3
• fine tuning
• finalize wording and definitions

14 ADAS TF 30 Aug. ‘22
Draft 1 = ADAS-14-02

14 GRVA Sep. ‘22
Draft 1

20 ADAS TF 15 May ‘23
Draft 2 = ADAS-20-02
Interim

16 GRVA May ‘23

ECE/TRANS/WP.29/GRVA/2023/20

18 GRVA Jan. ‘24
Draft 3
(final)

We are here
Further Workplan

- 5 October 2023 – 24\textsuperscript{th} ADAS TF session online;
- 23-27 October 2023 – 25\textsuperscript{th} ADAS TF hybrid session in Brussels at AVERE
  - Conference room capacity is about 40 seats;
  - Please inform the ADAS TF leadership (a.bocharov@nami.ru, mvanimpe@tesla.com) if you are going to attend the session in-person;
- Submitting the working document to the 18\textsuperscript{th} GRVA session by 30 October 2023;
- Outstanding issues, if any, could have been discussed before the 18\textsuperscript{th} GRVA session with the preparation of an informal document, if needed;
- Additional ADAS TF and/or Small Drafting Group (SDG) meetings will be organized if needed.
Thank you for your attention!
Back-up
Background

- GRVA adopted at its 9th session in February 2021 the terms of reference for the Task Force on Advanced Driver Assistance Systems (ADAS).
- The Task Force (TF) focuses on Advanced Driver Assistance Systems (ADAS), and shall address the simplification of UN Regulation No. 79 and if needed, develop a new ADAS UN Regulation with a focus on ADAS systems up to of level 2 (as defined in ECE/TRANS/WP.29/1140).
- The TF on ADAS agreed to start developing a new UN Regulation
Two Parallel Workstreams of the TF

Working on the pending proposals for UN R 79

Finding open issues hindering to adopt the proposals

Proposals on how to resolve open issues

Drafting the amended proposals to UN R 79

Development of the provisions for the new ADAS use cases

Analysis of ADAS use cases and associated requirements

Development of the high-level regulatory items for ADAS

New UN Regulation on longitudinal + lateral control on a sustained basis

Development of the definitions, classification and scope of regulatory activities

Proposals on how to resolve open issues

Development of the high-level regulatory items for ADAS

New UN Regulation on longitudinal + lateral control on a sustained basis

Finding open issues hindering to adopt the proposals

Proposals on how to resolve open issues

Drafting the amended proposals to UN R 79

Development of the provisions for the new ADAS use cases

Analysis of ADAS use cases and associated requirements

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Finding open issues hindering to adopt the proposals

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Development of the provisions for the new ADAS use cases

Analysis of ADAS use cases and associated requirements

Development of the high-level regulatory items for ADAS

New UN Regulation on longitudinal + lateral control on a sustained basis
Agreed DCAS Key Principles

1. **“Driver” refers to a human being driving a vehicle.**
   1.1. A DCAS does not replace the driver (ADS); a DCAS assists the driver (ADAS).
   1.2. A DCAS does not change the driver’s responsibilities for control of the vehicle.

2. **A DCAS is a driver-operated vehicle system.**
   2.1. A DCAS must prevent reasonably foreseeable risks of driver misuse or abuse.
   2.2. A DCAS must have means to evaluate continuous driver involvement in and supervision of the vehicle operation.
   2.3. A DCAS do not aim to permit driver activities other than driving in addition to those permitted for manual driving.
   2.4. A DCAS must provide sufficient information to enable the driver to supervise its motion-control assistance.

3. **A DCAS assists the driver via sustained lateral and longitudinal motion-control support.**
   3.1. The DCAS support must not adversely impact road safety.
   3.2. The DCAS support must not adversely impact driver control over the vehicle behavior.

4. **The availability of a DCAS to the driver is constrained by defined system boundaries.**
   4.1. The manufacturer must describe the system boundaries.
The Small Drafting Group (SDG)

- The Small Drafting Group (SDG) was set up at the 11th ADAS TF session
  - The SDG participants: RUS, D, EC-JRC, NL, UK, AVERE, OICA, CLEPA, AAPC, ETSC

- The SDG:
  - Continues the development of the Master Document
  - Addressed separating DCAS between UN R 79 and DCAS UN Regulation
  - Targeted to submit the working document for the 17th GRVA session in September 2023