

# MONITORING PHASE OF RD-ASEP

REF: INFORMAL DOCUMENT GRBP-77-  
14, 77 GRBP, FEBRUARY 7-10, 2023

RD-ASEP Monitoring project workshop  
with CPs (GRBP Task)

Brussels

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acea



OUTCOME - 77 GRBP

# 77 GRBP OUTCOME

- Onwards 1 July 2023, a one-year monitoring period would start for collecting and analysing test data on the Real Driving Additional Sound Emission Provisions (RD ASEP).
- OICA presented their views on the organization of this process (GRBP-77-14) and proposed a draft monitoring data sheet for the purposes of RD ASEP data collection (GRBP-77-15-Rev.1).
- GRBP noted that the Technical Services, under overall responsibility of the Type Approval Authorities, should play a key role in gathering the required data sets and sending them not less than every three months to an independent contractor selected by OICA, who would check the quality and analyse the data.
- OICA invited Contracting Parties to inform OICA by the end of February 2023, if they would be willing to financially contribute to the project.
- Proposed amendments to UN Regulation No. 51 (GRBP-77-13-Rev.1) adopted by GRBP for WP.29 June'2023 session.



# OICA / ACEA STUDY ON ASEP

# CONTENT OF STUDY

- Study tender consists of theoretical and experimental study of the Additional Sound Emission Provisions (ASEP).
- With 5 years of application within the regulation UNR 51-03, the objectives of the study are to establish a clear status of the achievements obtained with ASEP and to identify the future developments, which will answer to the future environmental and safety stakes of the mobility.
- UTAC has been awarded the study tender post analyzing the other quotations received from other interested partners (total 4) and assessed based on expertise, cost efficiency and timelines.
- 2 Work Packages (WP):
  - Work Package 1 (WP.1.): Dedicated to the ASEP introduced in 2016,
  - Work Package 2 (WP.2.): Dedicated to the Real Driving ASEP, evolution of the current ASEP.

# WP.1.: ASEP ACHIEVEMENTS

## THIS WORK PACKAGE WILL BE SPLIT IN 4 SUB-PARTS:

### ■ WP.1.1. LITERATURE REVIEW

- Studies published worldwide (*study regarding recognitions of the press, environment groups and associations*), in English, on the ASEP development. The objective will be to highlight the reasons of ASEP implementation and to identify the changes since the ASEP introduction.
- The impact and consequences of the ASEP implementation will be more broadly addressed through the survey and the test campaign proposed in the following sub-sections.

### ■ WP.1.2. SURVEY ON ASEP RECOGNITION

- To evaluate the recognition of the ASEP, UTAC will propose a survey to various stakeholders. Different press organizations, environmental groups and governments will be interviewed.
- For Tiers 1, suppliers of acoustic solutions and OEMs, a specific survey will be designed including their vision of the ASEP implementation for 5 years but also their assessment of the technical impact of the ASEP on the product design (subsystem and complete vehicle).
- Based on this survey, a semantic analysis will be conducted to offer to ACEA clear synthesized feedback on ASEP.

# WP.1.: ASEP ACHIEVEMENTS

## ■ **WP.1.3. ASSESSMENT OF ASEP IMPACT**

- An outdoor test campaign, to quantify the impact of the ASEP on noise performances of the vehicle. Measurements will be performed on one of our ISO test tracks in line with type approval requirements.
- As a minimum number of vehicles (M1 but N1 categories) is required to undergo a statistical analysis-> test campaign on 8 vehicles. 4 vehicles designed before 2016 based on UNR 51-02 requirements and its respective successors designed according to the UNR 51-03 will be selected. vehicle selection will cover several technologies potentially impacting the exterior noise performances of the vehicle (e.g. flaps, loudspeakers...).
- A comparative analysis between the test campaign and the survey results, allowing confirming potential correlations between the subjective assessment of stakeholders and measurements.

## ■ **WP.1.4. DELIVERABLES TO OICA / ACEA**

- 2 reports: interim and final. The final report will be published on UTAC website.
- 2 presentations: interim and final. The final presentation will be delivered, up to 3 times in total, to UNECE Task Force Vehicle Sound (TF VS) and UNECE GRBP.

# WP.2.: RD-ASEP MONITORING

**THIS SECOND WORK PACKAGE WILL BE SPLIT IN 4 SUB-PARTS TO ANSWER TO ACEA EXPECTATIONS:**

- **WP.2.1. DATABASE FOR RD-ASEP**

- Refer the 77<sup>th</sup> GRBP discussions

- **WP.2.2. SURVEY ON RD-ASEP IMPLEMENTATION**

- Once the monitoring period is complete, UTAC will conduct a second survey of stakeholders involved in the RD-ASEP. The stakeholders will be OEMs (on NDA basis) and Technical Services in charge of the RD-ASEP realization.
- The objectives of the survey are to qualify the RD-ASEP process, to identify potential difficulties encountered during the monitoring period (such as the realization of the measurements, the use of the RD-ASEP model to calculate noise level limits, ...) and to highlight the ways of improvement.



# WP.2.: RD-ASEP MONITORING

## ■ **WP.2.3. DATABASE ANALYSIS**

- Based on the data collection (refer to WP.2.1.), a statistical analysis will be conducted and the impact of the RD-ASEP will be assessed.
- The objectives are to evaluate the stringency of the RD-ASEP, to quantify some correlations and trends that may provide insight into measured behaviors, to assess the benefits and limitations compared to the current ASEP, and to identify the ways of improvement.
- Finally, a qualitative/quantitative comparison between the survey results and the database analysis outputs will be conducted to consolidate the findings.

## ■ **WP.2.4. DELIVERABLES TO OICA / ACEA.**

- Anonymized database
- 2 reports: interim and final. The final report will be published on UTAC website.
- 2 presentations: interim and final. The final presentation will be delivered, up to 3 times in total, to UNECE Task Force Vehicle Sound (TF VS) or UNECE Informal Working Group ASEP (IWG ASEP) and UNECE GRBP.





# JOINT ACTIVITY WITH UNECE CP AND INDUSTRY

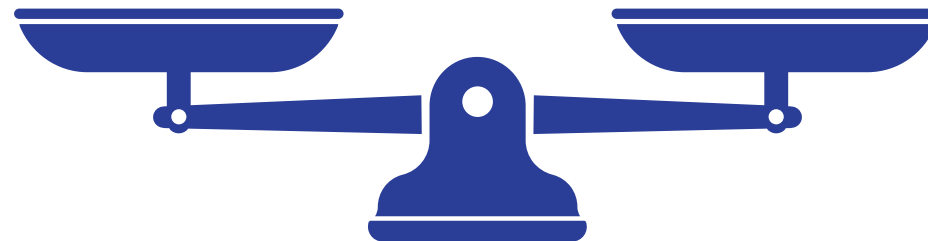
# MOTIVATION

- Study awarded to UTAC, France – decision concluded in Jan'2023
- CP's contribution needed to avoid any negative impressions
- CP's contribution envisaged from financial and capacity support
- CP's may suggestion additional WP, if needed (Deadline: **Mid May'2023**)
- Proposal to support internal processes in CPs: 50% of Industry in 2023, 50% of CPs in 2023 / 2024-> Payment to ACEA
- Activities are limited to interested CPs and ACEA/OICA
- Confidentiality Agreement -> decision for access to anonymized database to wider stakeholders (after presentation in GRBP)

# BALANCED TEAMWORK

Contracting Parties
Possibility to define additional content on top of existing work packages agreed with UTAC with additional budget and effect on timelines
50% of Budget
minimum share of 10% of total study costs <b>per CP</b> required

Vehicle Manufacturers
Contract with work packages with total study budget (100%)
50% of Budget
Equal contribution by vehicle manufacturers





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