



OICA

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Informal Document **GRBP-79-39**
79th GRBP, 6-9 February 2024,
agenda item 13

Work on Exterior Acoustic Signaling

Report to 79th Session of GRBP

6-9 February 2024

EXTERIOR ACOUSTIC SIGNALING

REPORT OF ACEA TF-ACSI

Working Party on Noise and Tyres (GRBP)
79th session, Palais des Nations, Geneva

Louis-Ferdinand PARDO (Renault)
Pilot of ACEA TF-ACSI

6-9 February 2024

acea

MEETINGS AND PARTICIPANTS

ACEA TASK ACOUSTIC SIGNALING (TF-ACSI)



3

Number of Meetings

Hybrid-meetings

1st TF ACSI: 2023, November 20th

2nd TF ACSI: 2023, December 4th

3rd TF ACSI: 2024, January 11th



14

Participants

- **ACEA:**
Vehicle and Commercial vehicle manufacturers from EU and Japan, Korea (via importers)
- **Acoustic Experts:**
ACEA, AFAI

SITUATION AND MOTIVATION

- Following documents WP.29-191-05r1 and GRBP-78-02, OICA asked ACEA to work on Exterior Acoustic signaling.

<i>N°</i>	<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline</i>	<i>Chair/Initiator</i>	<i>Comments</i>
Priority	Expand the scope of UN-R28 for new functions ‘warning sound outside’	Review UN-R28 and cross-references to other UN Regulations, provide definitions and specifications (if needed) review Communication form. check for application of UI	UN-R28, UN-R97, UN-R138, UN-R165, EU-NCAP Roadmap 2025	GRBP	GRBP-78 (Sept.2023): Report	OICA	EU-NCAP with plan for ‘child presence’ inside the car. See WP 29 report Sound outside of the vehicles.

- ACEA established an internal Task Force Acoustic Signaling (TF-ACSI).
- TF-ACSI aims to work on acoustic signaling:
 - to harmonize requirements.
 - to emphasize the function related approach.
 - to create a framework for exterior acoustic signals.
- TF-ACSI will not define the need for acoustic signals, but their characteristics.

OBJECTIVES

TASK 1: REVIEW OF REGULATION / STANDARDS

- identify the different regulations / standards related to exterior acoustic signaling.
- identify requirements concerning acoustic signaling in each regulation:
 - Definitions and the specifications, Test conditions, ...
- check the consistency between the different regulations.
- create an overview of cross functions on devices.

OBJECTIVES

TASK 2: ACOUSTIC SIGNALING FUNCTION CLUSTERING

- cluster in exterior acoustic signaling functions (safe life, safe car, information/communication,...)
- define priority management of exterior acoustic signaling
- create general template for the definition of sounds characteristics (pattern, repetition, frequency ranges, levels, modulation, ...)
- match these characteristics with exterior acoustic signaling clusters (sound characteristics for functions)

OBJECTIVES

TASK 3 : PROPOSALS OF AMENDMENTS TO REGULATIONS

- promote a function-oriented approach rather than device oriented approach
- harmonize and propose requirements for exterior acoustic signaling cluster/functions and address needs for potential new test(s) method(s)
 - to get consistent & representative specifications of any exterior sounds (and associated testing method)
 - to ensure technologically neutral requirements and room for technical innovations
- propose strategy to implement outcome from tasks to regulations

EXTERIOR ACOUSTIC SIGNALING DELIVERIES

PROPOSED TIMING ACCORDING TO THE GRBP SESSIONS

79. GRBP (February 2024):

- Status Report on working program

81. GRBP (February 2025):

- Outcome from Task 2
- First concept of regulatory changes

80. GRBP (September 2024):

- Outcome from Task 1
- Report on Tasks 2 and 3 progress

82. GRBP (September 2025):

- Outcome from Task 3
- First working document



THANK YOU FOR YOUR ATTENTION!