## Submitted by experts of OICA



## ACEA STUDY ON FUTURE SOUND LIMITS VALUES

## Study Focus and Timelines

73 GRBP SESSION

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BMW Group	CNH	DAF
DAIMLER	FIAT CHRYSLER AUTOMOBILES	Ford
<b>HONDA</b> The Power of Dreams	HYUNDAI	JAGUAR LAND-
GROUPE	GROUPE RENAULT	TOYOTA
VOLKSWAGEN AKTIENGESELLSCHAFT	VOLVO	VOLVO





**DAIMLER** 





























## DAIMLER









# KEY FIGURES ABOUT THE INDUSTRY

- 13.8 million Europeans work in the automotive sector
- 11.4% of all manufacturing jobs in the EU
- €428 billion in tax revenues (EU15 alone)
- **€84.4 billion trade** surplus for the EU
- 7% of EU GDP generated by the auto industry
- €57.4 billion in R&D spending, 28% of EU total



- □ ACEA (in co-operation with OICA) has assigned a study to an external consultant, to update the ACEA UTAC/TÜV Study 2010 and to include study results of the ACEA UTAC Tyre Performance Study 2019 in order to assess the feasibility towards reduction of sound limit values from the perspective of automotive industry.
- □ The study results will be used to inform decision makers about the possibilities, restrictions, costs and consequences of short term severely enforced sound limit values (for example: consequences of further reducing Phase 3 limits in 2024/2026 or reduction scenarios with additional limit reduction phases after Phase 3).

### **Study Links:**

ACEA UTAC/TÜV Study 2010

• https://www.acea.be/uploads/publications/Monitoring\_procedure\_in\_the\_vehicle\_noise\_regulation.pdf

ACEA UTAC Tyre Performance Study 2019

https://unece.org/DAM/trans/doc/2019/wp29grb/GRBP-70-25.pdf



# ACEA SCOPE OF STUDY ON SOUND LIMITS VALUES

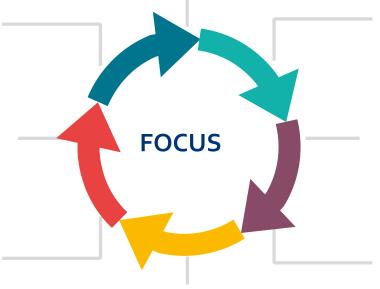
#### **LITERATURE SURVEY** AND

IDENTIFICATION OF APPROPRIATE
SCIENTIFIC RESEARCH

REVIEW OF THE **VENOLIVA STUDY** 

**EFFECTIVENESS OF STRICTER PASS-BY NOISE LIMIT** VALUES FOR M&N VEHICLES
ON THE OVERALL ENVIRONMENTAL NOISE
LEVEL

COST BENEFIT ANALYSIS FOR IDENTIFICATION OF THE OPTIMAL SCENARIO FOR IMPLEMENTATION OF PHASE 3



DIRECT EFFECTIVENESS OF DIFFERENT SCENARIOS FOR PHASE  $_3$  IMPLEMENTATION ON NOISE INDICATORS  $\mathsf{L}_\mathsf{DFN}$  AND  $\mathsf{L}_\mathsf{NIGHT}$ 

MINING TO IDENTIFY STATE OF THE ART NOISE EMISSION LEVELS OF THE M & N VEHICLES WITH ICE AND EV

REVIEW OF DIFFERENT SCENARIOS FOR PHASE 3 IMPLEMENTATION WITH TRADE-OFF ANALYSIS

ESTIMATION OF PRODUCT COSTS DUE TO THE STRICTER NOISE LEVEL LIMITS FOR TYPE APPROVAL OF M&N VEHICLES



Ш	What is the sound emission status of the state of art products available in the market?
	Which limits are achievable in the given time period for the next 10 years?
	What are the drawbacks on the existing vehicle designs?
	What are the impacts on future vehicle designs and techniques with revised (enforced) sound limits?
	How will revised limits influence customer expectations towards future technologies (e.g., negative influence of increased weight on mileage for EV's)?
	What are the additional costs incurred to develop technologies to fulfil the requirements in the given time period?
	Does the given time period fit to the Industry development process and timeline of products?
	What are the effective benefits on the overall environmental soundscape?
	What can be alternative or supportive noise abatement measures for environmental noise reductions (e.g., improved road surface, traffic management, etc.)?

# FACTS AND FIGURES

### **Converging Findings**

Other existing studies are referred to draw the findings (VENOLIVA 2011, Heinz Steven 2019, ACEA 2010, FEHRL Tyre Road Noise, Goodyear Tyre Road Noise, BAFU-Schweiz, ACEA Tyre Performance, etc.).

#### **Intensive Contribution**

>10

More than 2000 hours will be invested to conclude the study. OEM's will contribute to the study with background information.

OICA TA 2020 1655 (M1):23 (M2):44 (M3) 156(N1):76(N2):127(N3)

>2000 Hrs

### Considerable TA datasets

OICATA 2020 review / ACEA 2010 database review

Covering all vehicle categories (M1, M2, M3, N1, N2, N3)

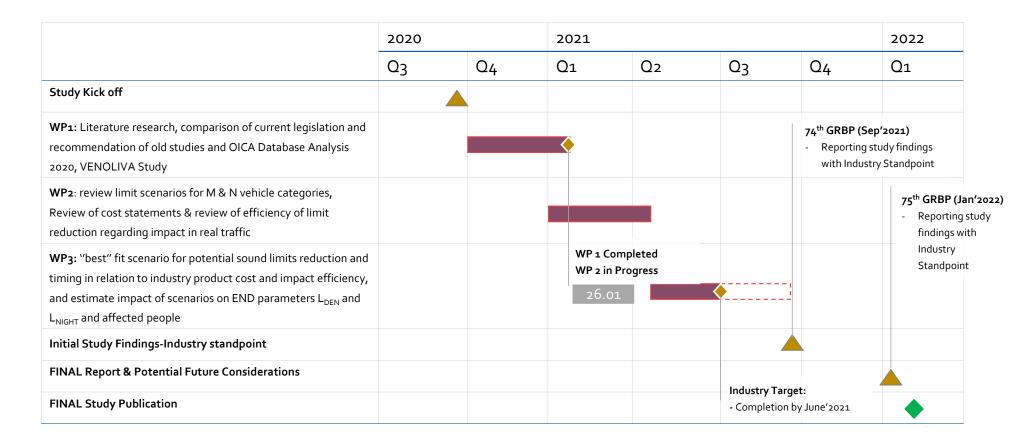
16 OEM's

### **Overall Representation**

OEM's under the umbrella of ACEA represent all market segments and vehicle technologies.

16 OEM's have agreed to contribute to a neutralized cost statement.

# STUDY MILESTONES





ACEA represents the 15 major Europe-based car, van, truck and bus manufacturers

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