Transmitted by the chair of the TF-SL (Sound Limits)/VS (Vehicles' Sound)

Informal Document GRBP-82-20
82nd GRBP, 3-5 September 2025
Agenda item 7

Status report to the 82nd session of GRBP (September 2025)

Task Force Vehicles' Sound

(TF-VS)

NB: the previous name of this TF was TF-SL for Sound Limits

Task Force on Vehicles' Sound

Targets	• Provide a forum for discussions on Road Traffic Noise control • Make a holistic review of studies available • Review information on new initiatives on Road Traffic Noise control • Provide a technical report to contribute to any work on future sound emissions
Roles	• Chair: France (serge.ficheux@utac.com) • Secretariat: OICA (yannick.denoual@renault.com)
Reporting	• To GRBP
Documents	• UNECE Wiki page: Task Force on Vehicle Sound (formerly TF on Sound Limits TF-SL) • TF-VS Guidelines: GRBP-74-03e-Rev.1 • TF-VS Synthesis Report: 2023_06_20 TF-VS Report on 11 Sessions

Task Force on Vehicles' Sound: facts and figures

Meetings

- 18th online meeting: 9th July 2025 – TFVS-18

Attendees ~35

- CPs:
  China, European Commission, France, Germany, India, Italy, Japan, Spain, Switzerland, The Netherlands, United Kingdom
- NGOs:
  CLEPA, ETRTO, EUWA, IMMA, ISO, OICA
- Guests:
  ICCT, RWTH Aachen University, …

Task Force on Vehicles' Sound: achievements

TF-VS synthesis report on the first 11 sessions

- 11 Sessions, 54 presentations
- Five key "domains" of activity were identified

  General findings and recommendations were identified for each domain

Immission (sound at receiver point)
- Sound mapping, traffic flow, abatement measures

Enforcement
- Regulation & type Approval, PTI, Road-side inspection

Tyres / Road
- Tyre sound level & labelling, road surface monitoring

Vehicle
- Vehicle sound emission, evolution over lifetime

Driver
- Driving behaviour, manipulation, maintenance,..

- Link to the report: 2023_06_20 TF-VS Report on 11 Sessions

TF-VS #18 Session – Brussels, 9th July 2025

Presentations		Domains
1. ICCT	**"Considerations for transport policies mitigating the negative impact of vehicle noise"** • stresses out the adverse effect on health of single events and Lmax • It proposes to take regulatory action to put a "not to exceed" sound limit at any operation condition, and put a limit on stationary sound • **Discussion**: The group reminded that forthcoming RD-ASEP will cover a wider range of operation conditions in R51 and R41	Enforcement Vehicle
2. RWTH Aachen University	"**Integrating Type Approval into CNOSSOS-EU**" • CNOSSOS-EU sound mapping tool uses 2007 data, missing recent vehicle noise improvements • It is proposed to use Type Approval data to refresh tyre and powertrain noise models. • **Discussion**: CNOSSOS is acknowledged as outdated by some CPs, but there is no plan to update CNOSSOS at EU. This would require a preliminary EU research project	Immission Vehicle

TF-VS #18 Session – Brussels, 9th July 2025 (continued)

Presentations		Domains
3. ETRTO	**"ETRTO comments on the latest outcomes on the LEON-T study"** • In TF-VS #17, JRC presented the conclusions on LEON-T project, recommending to lower the tyre sound level limit values by 2dB. • ETRTO stresses the fact that this reduction would have an impact on other tyre performances • **Discussion**: feedback to LEON-T should be discussed in specific meeting with JRC and ETRTO/OICA	Enforcement Tyre / road
4. EMPA (Switzerland)	"**Comparing Measured Pass-by Levels of Accelerating Battery Electric Cars and Combustion Engine Cars**" • EMPA measured the noise emissions of ICE vs. EVs vehicles under similar conditions. • EVs and ICE appear to emit similar sound levels at constant speed • ICEs are 1–3 dB louder during acceleration. • This data is processed to calibrate a CNOSSOS-like model using real traffic profiles. The model shows EV noise benefit is limited to high acceleration and speeds below 40 km/h • **Discussion**: these findings are in line with other works on the benefits of electrification	Immission Vehicle

Task Force Vehicle Sound – other activities

The Cross Matrix

Purpose : provide reference sound exposure models for the evaluation of sound abatement measures

Mean : sound exposure models are based on **commonly agreed hypothesis** on:

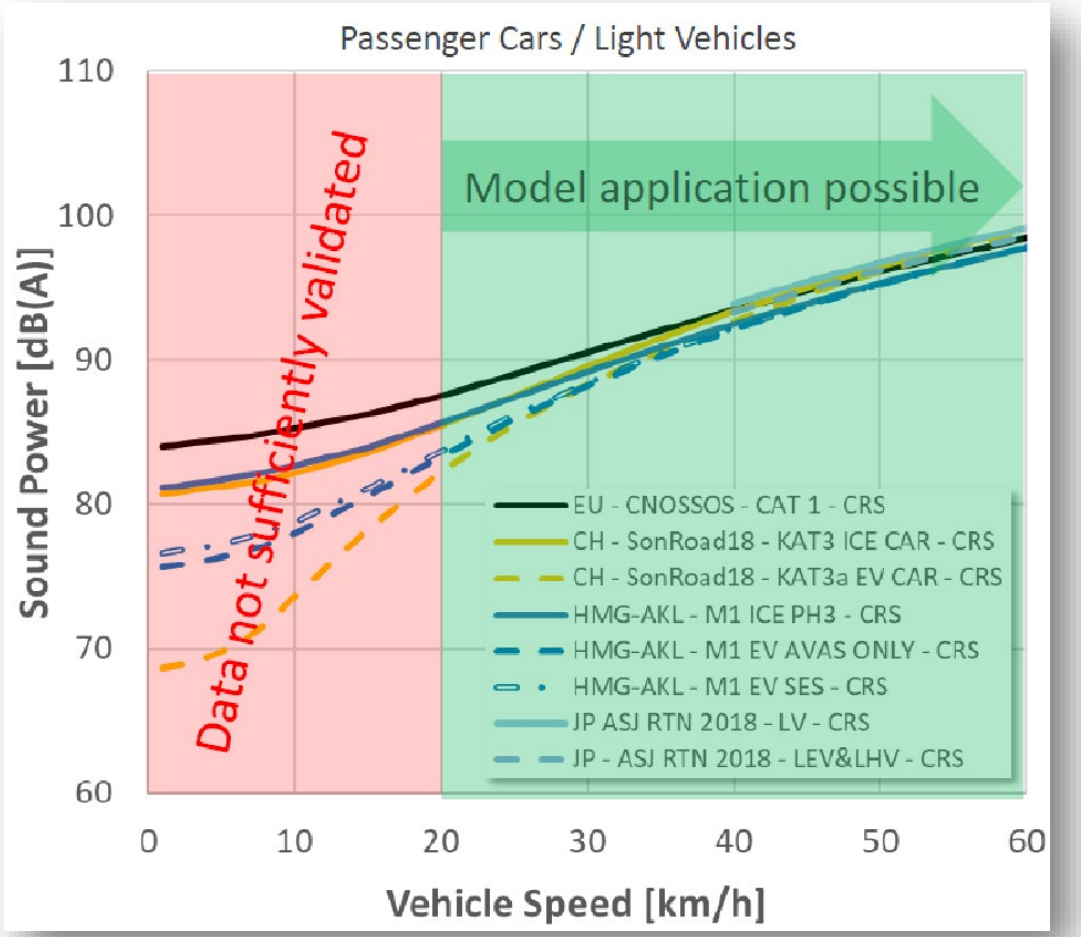
- Vehicle fleet composition
- Vehicle sound emission models (powertrain, tyre/road)
- Traffic scenarios (single event ?, average L_{eq} ?)

A **Cross Matrix Subgroup** was created to gather data

- Last meeting held in April 2022

Recent outcome

- TFVS-17-07 – "*Considerations on the use of existing road traffic noise models for GRBP work*" – HMG Akustiklabor
- Compares vehicle sound emission models from EU (CNOSSOS), Japan, Switzerland and HMG Akustiklabor



Task Force Vehicle Sound – Next Step

TF-VS #19 meeting

- Joining the Working Groups meeting week in Munich, 20th October 2025

	Mon. 20 Oct	Tue. 21 Oct.	Wed. 22 Oct.	Thu. 23 Oct	Fri. 24 Oct.
Morning		IWG RD-ASEP	IWG RD-ASEP	SG R51/R138	TF-AVRS
Afternoon	TF-VS	IWG RD-ASEP	SG R51/R138	SG R51/R138	

Thank you!