



OICA comments on the LEON-T Study

TFVS-19-02e

9th February 2026, Geneva



OICA view on LEON-T Results

- We appreciate the work of the study and support its aim to contribute to the Commission's 2021 EU Action Plan, 'Towards Zero Pollution for Air, Water and Soil'
- However, when analyzing the LEON-T report ([WP D6.3 - Evaluation of future new policies on noise emissions](#)) and the presentation shared in TFVS-17 ([TFVS-17-05-rev02e](#)) we discovered several findings that need a clarification or have to be contextualized regarding previous work of GRBP



Contextualization of results

- Inconsistencies in the elaboration could lead to wrong conclusions for further work:
 - Contribution of tyre noise to the whole vehicle sound is claimed to be “significant” / “one of the main contributors to the total vehicle sound emission” (pp.6-7) - at the same time it is displayed as neglectable (p.14, Table 10)
 - Several previous studies show, that tyre noise is the main contributor to the whole vehicle sound especially for cruising condition (e.g. Heinz Steven 2012 for German EPA (UBA): impact of new R51.03)

10 : Contribution of tyre rolling noise to vehicle sound.

		Vehicle sound	Tyre	Non tyre sound	Tyre sound	% tyre
M1	ICE	71,2	C1	70,4	63,6	1,2%
M1	PEV	66,0	C1	65,0	63,6	5,6%
N1	ICE	72,8	C2	72,0	65,0	1,1%
N2	ICE	73,5	C2	72,0	65,0	1,0%
N2	PEV	72,0	C2	71,0	65,0	1,4%
N3	ICE	79,0	C3	80,0	58,2	0,0%
M3	ICE	76,1	C3	76,0	58,2	0,1%
M3	BEV	69,5	C3	69,2	58,2	0,4%
M3	FCEV	67,0	C3	66,4	58,2	0,1%

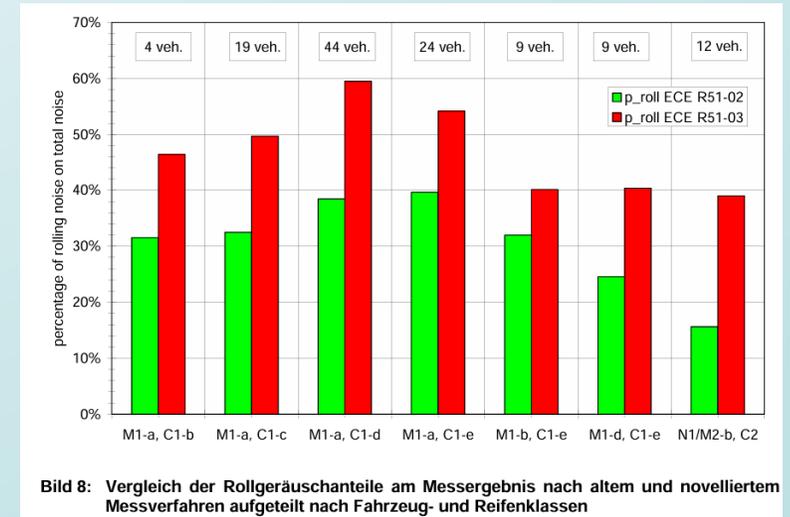


Bild 8: Vergleich der Rollgeräuschanteile am Messergebnis nach altem und novelliertem Messverfahren aufgeteilt nach Fahrzeug- und Reifenklassen

Figure 8: Comparison of the shares of rolling noise in the measurement result according to the old and revised test procedures, broken down by vehicle and tire classes



Contextualization of results

- Methodological risks of tyre noise extrapolation influence the results (pp. 13–14)
 - Tyre noise levels were extrapolated from 70–90 km/h to 50 km/h, but it is unclear whether the tyres matched those used in the UN-R 51/03 vehicle tests, or whether powertrain noise was excluded.
 - Given the known risks of extrapolation error, direct measurement at 50 km/h – as required by UN-R 51/03 Supplement 7 – is recommended for accuracy.
- Further influences like the torque effect of tyres have not been integrated in the calculation



Contextualization of results

- These factors lead to different conclusions of LEON-T than previous studies presented in GRBP, esp.
 - ETRTO Recommendations ([TFVS-18-05](#))
 - Study on future sound limits values for type-approval for vehicles of category M & N by OICA/ACEA/ATEEL ([GRBP-75-16/17](#))
 - ACEA Tyre Performance Study [GRBP-75-18/19](#):



LEON-T Sound models

The propulsion noise is assumed unrealistically high (for BEVs 64 dB(A) constant is almost the max. sound allowed today by UN-R 138) and in contradiction to the LEON-T recommendations

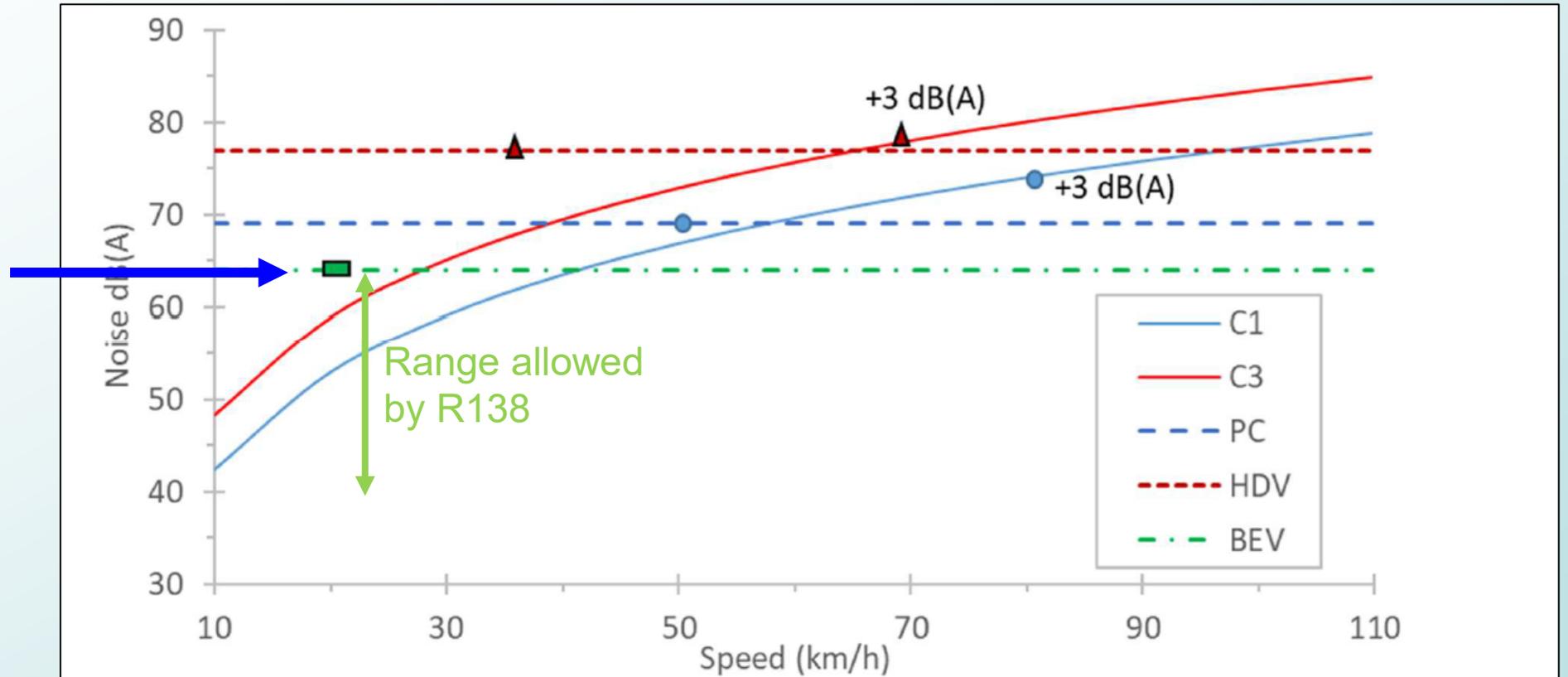


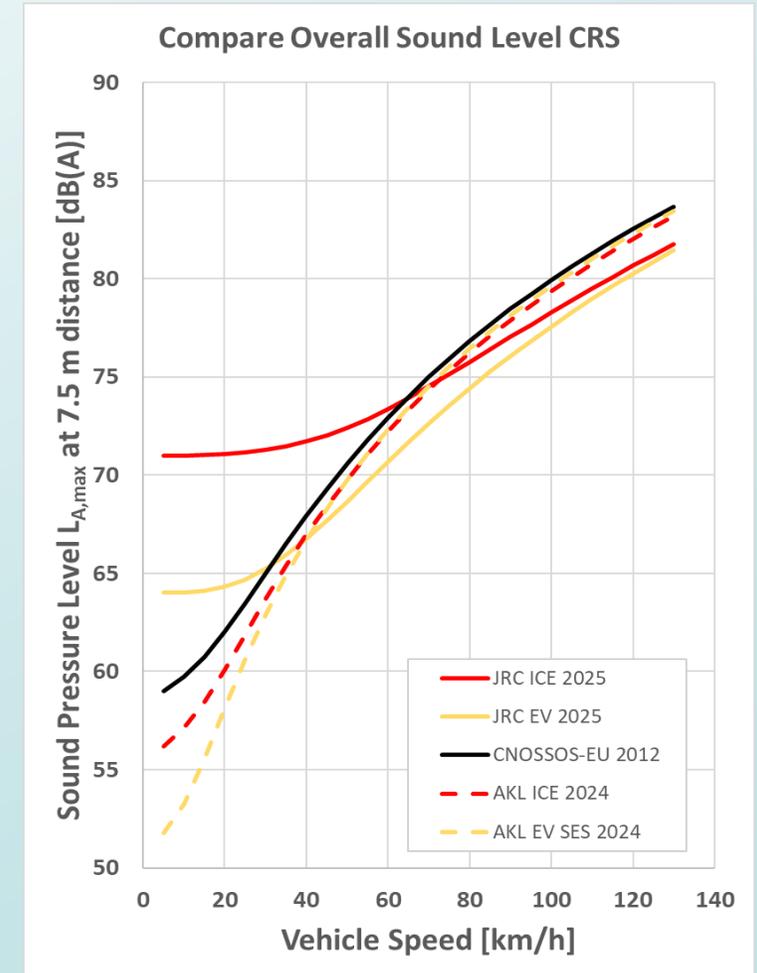
Figure 8 : Noise of tyres (C1 and C3) and propulsion engines (of PC and HDV or BEV) as used in the model. Symbols indicate the speed of the type approval tests for the tyres and propulsion engines PCs (circles), HDVs (triangles) and electric vehicles (square)

LEON-T report ([WP D6.3 - Evaluation of future new policies on noise emissions](#)), p.31



Sound models

- Existing Studies (VENOLIVA, PHENOMENA, LEON-T, etc.) use different approaches
- All models differ from CNOSSOS by individual modifications
- The Sound Model of LEON-T should not be used without comparison to existing road traffic noise models for GRBP work (esp. [GRBP-81-28](#))





Summary and Recommendations

- The results of work package [D6.3 of the LEON-T](#) project should not be used for further GRBP work without a detailed review of methodology and model assumptions.
- OICA is happy to support further legislation and to assist in solving common problems with practical approaches (e.g. ASEP for BEVs).
- A reduction of noise limit values must not happen at the cost of safety – as mentioned by the ACEA Tyre Performance Study ([GRBP-75-18/19](#)) and ETRTO Recommendations ([TFVS-18-05](#)).



Thank you



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