

European tyre and Rim  
Technical Organization



# ETRTO considerations on the proposed R51 amendment

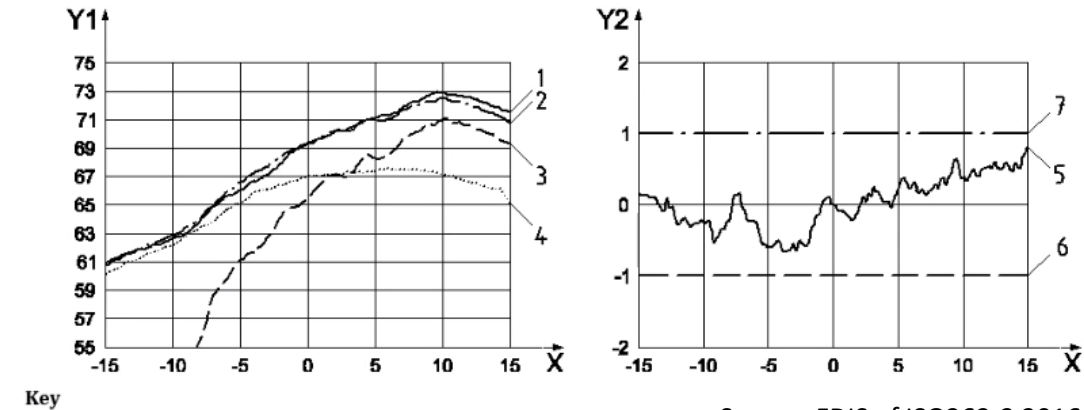
November 15<sup>th</sup> 2021

# ETRTO considerations to proposed amendment to R51

Regarding the technical implementation ETRTO would like to raise awareness and ask for clarification to the following points:

- › With the proposed implementation of case 2 the influence of using different vehicles on different tracks has a negative impact on the measurement uncertainty of  $L_{urban}$  since  $L_{crs\_tr}$  is determined with the measurement uncertainty of an R117 test
- › ETRTO asks OICA to present data to show that the proposed case 2 would be equivalent to the current implementation of the vehicle homologation
- › Maximum power train noise and maximum tyre rolling noise usually do not occur at the same position on the test track. Case 2 energetically adds the two maximum values which could lead to a general overestimation of vehicle noise. Would a peak position correction be an option for the evaluation?
- › Does subtracting the maximum value of tyre noise from the overall vehicle noise without considering the position on the track, minimizes the measured powertrain noise?

Figure A.2 — Examples for the most relevant parameters



Source: FDIS of ISO362-3 2016

# ETRTO considerations to proposed amendment to R51

## Potential major impact on tyre industry testing effort:

- › As it is written in the R51 proposal today, **any entity (incl. tyre manufacturer) would be able to perform the tyre rolling noise tests** in Annex 3 – Appendix 3
- › The **L\_urban result** and a potential **market surveillance result** are primarily **defined by** the result of this **tyre rolling noise test**.
- › ETRTO understood that this **test can not be performed without being witnessed** by a technical service or type approval authority
- › In case a tyre manufacturer is requested to perform this test **on its own proving ground** the tyre manufacturer **would need to coordinate tests with all technical services and type approval authorities** used by all vehicle manufacturers world wide

# ETRTO considerations to proposed amendment to R51

## **ETRTO asks for clarification and a further impact assessment regarding:**

- › The technical points presented, concerning the application of the proposed Case 1 and 2
- › The question on if the tyre rolling noise test within R51 needs to be witnessed by a technical service or a type approval authority considering the strong impact on the L<sub>urban</sub> and market surveillance results
- › **ETRTO asks to postpone the submission of the proposed Annex 3 – Appendix 2 for R51 until the above points are clarified.**

# Thank you

