

Transmitted by
Former Chair of IWG MU

GRBP-82-19
82nd GRBP, 3-5 Sept. 2025
Item 3 of the provisional agenda

Background Information to Informal Document GRBP-82-18

A Revision of
Document for Reference GRBP/2024/8

Short history:

1. 79th GRBP, February 2024

To complete the tasks given by the Terms of Reference, the Informal Working Group on Measurement Uncertainties delivered a Working Document GRBP/2024/8.

The intention of this Document for Reference, was to provide background information about the development of the uncertainty budget for UN-R 51/03 and UN-R 117. Basically, the document was intended^{ed} to be a knowledge management tool for measurement procedures used in UN Regulations for the Working Party of Noise and Tyres.

2. 80th GRBP, September 2024

Based on feedback from CPs, an Informal Document, GRBP-80-07.Rev.1, was presented as a replacement for GRBP/2024/8.

However, some CPs still had concern with parts of the text, especially, when third party testing was performed. As presented, the document was not accepted as a Document for Reference.

The IWG on Measurement Uncertainties was closed due to the chair's retirement.

3. 82nd GRBP, September 2025

Based on extensive contact with some CPs, the former chair of IWG MU has made a comprehensive revision of the GRBP-80-07.Rev.1, with the aim to meet the concern of some CPs.

The following basic revisions have been made:

1. A new Scope has been inserted.

The Scope now clearly states the intentions and use of this document. Even if uncertainty values are given for “Field tests” in the document (normally related to third party testing), such testing is not part of any UN Regulations. Therefore, it is not intended to question or even soften defined limit values or measured values during type approval or COP.

2. The last paragraph of chapter 2.5.6.4 has been deleted (UK concern).

3. A new Annex B has been added.

This Annex gives an overview of the technical development of the uncertainties when testing M1 and N1 vehicles according to Reg.51, up to Supplement 6 of the 03 series of amendments.

4. In Annex B, a new table B-1 has been inserted.

This table B-1 shows the importance of the different quantities when testing is performed. Since track-to-track variations is by far the highest contributor to the overall uncertainty, a detailed explanation of the most important parameters defining the pass-by noise level on ISO test tracks has been incorporated. In addition, it outlines some measures that could reduce this variation.

Conclusions:

1. “Living” Document

The intention of making this a Document for Reference has all the time being a “living” document. Thus, any improvement of the test procedures, to reduce the measurement uncertainties could be shown as revised tables of uncertainties within this document.

2. Effects of Improvements

With Supplement 7 to the 03 series of amendments to UN Regulation No. 51 test track and temperature compensation procedures have been introduced which clearly will have an impact on the measurement uncertainties. With the same intention Supplement 2 to 04 series of amendments to UN Regulation No. 117 improves the already existing temperature correction for tyres. However, these effects have still to be quantified.

3. Adoption as Document for Reference

By this revision of GRBP-80-07. Rev.1, the former chair (Norway) of IWG MU seeks acceptance of this document to be a Document for Reference.



Thank you!



Former Chair (Norway) of
IWG Measurement Uncertainties