

Last Status Report of Informal Working Group on Measurement Uncertainties (IWG MU)

Summary of achievements

IWG Measurement Uncertainty (est. 2019)

Targets

- improve test methods (UN Regulations No. 51 & No. 117 as a start)
- compensate systematic errors if possible
- evaluate the influence of random errors (remaining quantities)

Roles

- Chair: Norway
- Secretariat: OICA

IWG MU homepage

<https://wiki.unece.org/pages/viewpage.action?pageId=92012814>

IWG Measurement Uncertainty: Facts and Figures



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Number of Meetings since 1st meeting in Brussels, May 2019

- 1st -3rd meetings (May 2019 - January 2020):
in person meetings
- 4th meeting (March 2020): cancelled (Covid)
- 5th-19th* meetings (April 2020 - May 2022):
Web conferences
- 20th meeting (June 2022): 1st hybrid meeting
after Covid
- 21st – 25th meetings (Nov. 2022 - July 2024):
in person and web
meetings alternating
- 26th meeting (Nov. 2023): last hybrid meeting



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Participants (Contracting Parties & NGOs)

- CPs:
Italy, UK, China, Norway, Germany,
France, India, Spain, Japan, European
Commission
- NGO's:
OICA, ETRTO, CLEPA, ISO, ETO, IMMA



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Documents to GRBP (Informal and Working)

- Status Reports: 8
- Terms of Reference: 6
- Informal Documents: 21
- Working Documents 7

* Including 14 ½th , 14 ¾th and 15 ½th meetings

Terms of Reference :

Objectives of the IWG on Measurement Uncertainties

1. The Informal Working Group shall develop and propose [harmonized measures for evaluating systematic errors and random errors](#) based on GUM 98-3.
2. The scope and purpose of the Informal Working Group should cover [at least UN Regulation No. 51 and No. 117](#). The Informal Working Group shall develop harmonized technical requirements for these UN Regulations with consideration to their test procedures.
3. The Informal Working Group shall, where appropriate, develop a [practice guide for compensation and/or correction factors](#).
4. A general approach shall then be made in such a [way that it is possible to use it to improve test procedures in other UN Regulations](#). This approach could be either [documented in the Consolidated Resolution on Construction of Vehicles \(R.E.3\)](#) or as a Document for reference
5. The Informal Working Group shall report to GRBP

IWG MU – Achievements (1)

UN Regulation No.51.03

Evaluation of uncertainty impact, joint with ISO and input from OICA. Proposals for improvement of test conditions which has an impact on measurement uncertainties; like test track compensation (rolling sound), temperature correction procedures, test vehicle and test tyre requirements



Informal Documents:
**GRBP-71-21, GRBP-73-15, GRBP-73-17,
GRBP-74-13, GRBP-75-04 Rev.1,
GRBP-76-09, GRBP-77-05, GRBP-77-08,
GRBP-77-09**

Working Documents:
**ECE/TRANS/WP.29/GRBP/2021/22,
ECE/TRANS/WP.29/GRBP/2022/08,
ECE/TRANS/WP.29/GRBP/2022/16,
ECE/TRANS/WP.29/GRBP/2023/12**

UN Regulation No. 117.04

Evaluation of impact, joint with ISO and input from ETRTO:
Proposals with updated temperature correction procedures for C1 and C2 tyres.



Informal Documents:
**GRBP-77-11, GRBP-77-12, GRBP-78-04,
GRBP-78-05, GRBP-78-06**
Working Document:
ECE/TRANS/WP.29/GRBP/2023/19

IWG MU – Achievements (2)

Document for Reference:

“A general approach how to handle measurement uncertainties.”

Evaluation based on ISO GUM 98-3. The approach can be implemented independent of type of measurements.



Informal documents:

**GRBP-74-11, GRBP-75-07rev1,
GRBP-75-08, GRBP-76-11, GRBP-77-07,
GRBP-77-08**

Working Document:

ECE/TRANS/WP.29/GRBP/2022/09/Rev.1

Document for Reference:

“Measurement Uncertainties when Testing in WP.29 GRBP Vehicle Regulations”

IWG MU has developed a Document for Reference with a more detailed explanation of the development of the uncertainty tables for vehicles (Reg.51.03) and tyres (Reg.117).

Whenever, there are changes in noise test procedures for vehicles and tyres, the tables of uncertainty calculations in this document shall be revised.



Informal Document:

GRBP-78-07, GRBP-78-08

Working Document:

ECE-TRANS-WP29-GRBP-2024-xx

IWG MU – Achievements (3)

Recent Documents and Future Work

The aim of the Informal Working Group is to present during the

- 79th GRBP in February 2024 a **Working document (ECE-TRANS-WP29-GRBP-2024-xx)** for a Document for Reference:
“Measurement Uncertainties when Testing in WP.29 GRBP Vehicle Regulations”
- Any further work on amendments of vehicle regulations, like Reg.138, Reg.41, Reg.92, etc, which have an influence on measurement uncertainties, should be allocated to existing or future informal working groups responsible for these regulations.



**Objectives of the Informal Working Group
on Measurement Uncertainties (IWG-MU)
have been fulfilled!**

Thank you!

