

# Status report Informal Working Group on Measurement Uncertainty (IWGMU)

78th session of GRBP  
(August/September 2023)

# 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



**3**

**Number of Meetings  
since 77th GRBP in February 2023**

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**Hybrid-meeting**

23rd IWG MU: 22 March, Washington DC

**Web-meeting**

24<sup>th</sup> IWG MU: 23<sup>rd</sup> May

**Hybrid-meeting**

25<sup>th</sup> IWG MU: 12<sup>th</sup> July, Paris



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**Participants  
(Contracting Parties & NGOs)**


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

# IWG MU – Work since 77<sup>th</sup> GRBP (February 2023)

## UN Regulation No. 51.03

New Approach after feedback of 77<sup>th</sup> GRBP:

Introduce the findings of IWG Measurement Uncertainties into Consolidated Resolution R.E.3, since R.E.3 already contains specifications for measurements of noise inside vehicle and the stationary noise test. 

A small drafting group prepared an amendment to R.E.3, consisting of partners from Norway, ISO, OICA and ETRTO.


Informal Document  
**GRBP-78-08**  
for presentation in GRSG

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## UN Regulation No. 117.04

77<sup>th</sup> GRBP:

Informal Documents with an updated temperature correction for C1 tyres.

In addition, ETRTO worked on a temperature correction procedure for C2 tyres (IWG-MU-24-05). 

78<sup>th</sup> GRBP:

Working Document with an updated procedure for C1 and C2 tyres.

Informal Documents  
**GRBP-77-11** and **GRBP-77-12**

Working Document  
**ECE/TRANS/WP.29/GRBP/2023/19**  
with Informal Documents  
**GRBP-78-04 & GRBP-78-05**  
for explanation

# IWG MU – Work since 77<sup>th</sup> GRBP (February 2022)

## **UN Regulation No. 117: Discussion of STEER Project Results**

After discussions with members of the STEER project a common understanding regarding the contribution of the different quantities has been reached.

The STEER analysis of MU was based in the ISO GUM approach, which differ somewhat to the ISO/ETRTO approach. An Informal Document is presented to the 78<sup>th</sup> GRBP explaining the agreements and highlighting remaining differences in opinions.



Informal document  
**GRBP-78-06**  
STEER and ETRTO MU analysis

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## **Document for Reference**

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

In addition to the amendments of R.E.3, IWG MU has developed a Document for Reference with a more detailed explanation of the development of the uncertainty tables for vehicles and tyres.

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**  
Document for Reference

# IWG MU – Terms of Reference

## Documents: past sessions

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

- 73<sup>rd</sup> GRBP (Jan. 2021) a **Draft document for Reference** and an **Informal document** for amendments to **UN Regulation No. 51**
- 74<sup>th</sup> GRBP (Sep. 2021) a **Working document** for amendments to UN Regulation No. 51 for consideration and adoption.
- 74<sup>th</sup> GRBP (Sep.2021) an **Informal document** containing general Guidelines for how to improve test procedures in other UN Regulations to reduce measurement uncertainties for consideration.
- 75<sup>th</sup> GRBP (Feb. 2022) a **Working document** containing general Guidelines for how to improve test procedures in other UN Regulations to reduce measurement uncertainties for consideration and adoption.
- 77<sup>th</sup> GRBP (Feb. 2023) an **Informal document** for amendments to **UN Regulation No.117**.



GRBP-73-15  
GRBP-73-17



GRBP/2021/22, GRBP/2022/8,  
GRBP/2022/16 and GRBP/2023/12  
with GRBP-74-13, GRBP-75-04rev1,  
GRBP-76-09 and GRBP-77-05



GRBP-74-11



GRBP/22/9 with GRBP-75-07rev1,  
GRBP-75-08 and GRBP-76-11  
GRBP-77-07, GRBP-77-08  
and GRBP-77-09, **GRBP78-07**



GRBP-77-11 and GRBP-77-12

# IWG MU – Terms of Reference

## Documents: today and in future

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

- 78<sup>th</sup> GRBP in Sep. 2023 a **Working document** for amendments to **UN Regulation No. 117** for consideration and adoption.

**Objectives of the working group have been fulfilled!**

**As a freestyle:**

- [78<sup>th</sup> GRBP in Sep. 2023 an **Informal document** for revision of the **Consolidated Resolution on Construction of Vehicles (R.E.3)**
- 126<sup>th</sup> GRSG in Oct. 2023 an **Informal document** for revision of the **Consolidated Resolution on Construction of Vehicles (R.E.3)**
- 127<sup>th</sup> GRSG in Apr. 2024 a **Working document** for revision of the **Consolidated Resolution on Construction of Vehicles (R.E.3)**



**GRBP/2023/22**  
**GRBP-78-04, GRBP-78-05**



**GRBP-78-08**



GRSG-126-xx



GRSG/2024/xx

Thank you!