

Transmitted by Chair of IWG MU

Informal Document **GRBP 74-20**
74th GRBP, September 15-17, 2021,
agenda item 3

Status report to 74th session of GRBP (September 2021)

Informal Working Group on Measurement Uncertainty
(IWGMU)

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
Note that Manfred Klopotek has retired from Scania and therefore, replaced by Klaus Neuhaus from July 2021.

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 73rd GRBP in Jan. 2021**

9th IWG MU: February 2021

10th IWG MU: April 2021

11th IWG MU: May 2021

12th IWG MU: June 2021

13th IWG MU: July 2021

Only Web-meetings possible



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**Participants
(Contracting Parties & NGOs)**

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

IWG MU – Work since 73rd GRBP (Jan. 2021)

Work on **UN Regulation No. 51.03** :

- Fields of work, which reduce measurement uncertainty : ambient conditions, vehicle selections and preparations
- Alignment with recent changes in ISO 362-1/3.



Working Document
(ECE-TRANS-WP.29-GRBP-2021-22):
Proposal to Suppl. 7 to UN-R51.03

Work on Systematic error in **UN Regulation No. 51.03:**

temperature correction due to tyre rolling sound for M1- & N1 vehicles

- measurement procedure is based on UN-R117,
- correction procedure is at different test speed (~50 km/h)
- Based on air temperature (instead of track temperature in UN-R117).



Informal Document
presented in 74th GRBP
from IWG MU (GRBP-74-13).

Question of the Commission: *Can UN-R51 test be corrected by using UN-R117 results ?*

- UN-R117 vehicle load and tests speeds are different from those of R51. Tire rolling sound values for R51 cannot be extrapolated from R117
- UN-R117 delivers one value for rolling noise of **a family of tyres**; not for the **specific tyre set** used in UN-R51 type-approval tests .



Answer to EC:
*UN R No. 117.04 rolling sound **cannot** be used in the constant speed test of UN-R51-03.*

IWG MU – Work since 73rd GRBP (Jan. 2021)

Update Timeline in **Terms of Reference** (GRBP73-16):

- Informal document for amendments of **UN Regulation No. 117** has to be shifted from 74th (Sept. 2021) to 75th (Jan. 2022) session of GRBP due to covid-19 situation and lack of feedback from the industry



Update of Terms of Reference
presented in 74th GRBP
(GRBP-74-12)

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- Impact of uncertainties esp. in the M2 (>3.5t), M3, N2 and N3 vehicle categories have been evaluated by an subgroup (HCV-manufacturers)
 - Input of Manufacturers of M2 (<3.5t) and N1 vehicles is requested, but up to now no input has been presented.
-> Assumption: These categories will not deviate from the above listed categories.



Document IWGMU-11-05 (OICA)
for vehicles of category
M2 (>3,5t), M3, N2 and N3

Update **Document of Reference** (IWGMU-10-02)

“A General Approach to Estimate Measurement Uncertainties”:

- Chair has incorporated the feedback from members of IWG MU.
- aimed to help others dealing with measurement uncertainties in regulations



Informal Document of Reference
presented in 74th GRBP
(GRBP-74-11)

Thank you!