

MINUTES

of the 21st WLTP IWG Meeting

Location: Palais des Nations, Geneva, Switzerland

Date & Time: January 9th, 2018 9:30 – 17:30 @ Room XII

(note) Sub Group EV : January 10th, 14:30 ~ 17:30 @ Room S4

< > indicates the purpose of each agenda

IS : Information Sharing, **D** : Discussion, **RC** : Reach Consensus

1. Welcome & Organization <IS>

Rob welcomes the group and reminds that the agenda is overloaded and asks the group the efficient discussions as much as possible.

Announcement:

- Mr. Francois Guichard is the new GRPE secretariat
- Amendment 3 of gtr 15 was adopted by WP29 in November
- Tomorrow (10.01.2018) will be a sub group EV meeting in room S4

2. Adoption of Minutes & Agenda <IS>

- ✧ The chair presents the proposed agenda in detail and reminds the sub group leaders to give only very brief overviews on the current status of their groups due to time constraints. The Agenda was **adopted** ([WLTP-21-01e_rev1](#))
- ✧ The chair recalls the last meeting in Korea and goes through the headlines of the minutes of the Seoul meeting. The minutes of 20th WLTP IWG Meeting were **adopted** ([WLTP-20-27e_rev1](#))

3. Prolongation of Phase2 Activities <D & RC>

- ✧ Proposal on Prolongation of Phase2 Activities ([WLTP-21-02e](#))
N. Ichikawa presents a general overview on the proposed prolongation of phase 2b until the end of 2020 (82nd GRPE). On the original time frame the work of phase 2b should be completed by the end of 2018. It is proposed to extend the phase until the end of 2020. Since the gtr has to be transposed into Japanese and European law, a lot of work is expected on national level.

Furthermore, Transposition problems are highly expected and due to these two facts the resources of the group will be restricted.

In WLTP-21-02e a detailed time schedule for the sub groups including specific issues are proposed including due days for Informal and Working documents. Particular focus was put on the following: Payload finalized, 4WD issues near to completion, wind speed and split run nearly finished , chassis dyno load setting, temperatures for the Road load determination, wind tunnel method is a brand new method, many manufacturers already apply the process, some concerns that came out during the current homologation process have to be addressed. Facility approval, homologation test procedure, wind tunnel for road load matrix (e.g.)

REESS balance measurement has not been discussed yet in the new issues task force, Japan will provide a new proposal, soon.

Measurement of oil and coolant temperature is close to finalisation.

New issues have to be dealt with urgently, since they affect the current type approval measurement.

The next "new issues task force" meeting will be held in March.

EU COM (A. Marotta) thanks for the comprehensive picture of the current situation, the improvement of the GTR on the basis of the experience made during the last months in Europe and that the transposition is another task lying in front of us. While he comprehends the problem of human resources, he thinks that some of the work might also be completed in 2018 and or 2019. His doubt is if the end of all work by the end of 2020 is compatible with the European plans for the introduction of WLTP and CO2 issues (double check by Alessandro). Apart from that the plan seems reasonable. He asks for a better explanation why the group wants to extend the time schedule and to show better examples to GRPE. 1. OBD cannot be started in 2018 and is too complicated to be finished within one year. 2. MAC issue could be in the work plan 2019- 2020 as well (justification).

Industry: (Ch. Lueglinger) Especially the new issues task force should always run in parallel to the process and will presumably never stop working.

India asks EU COM, if the issues that will be discussed in the COP task force will be harmonised. EU COM: Type approval is not possible without COP. With the introduction of WLTP and the introduction of interpolation families, it is clear that the process of COP has to be reviewed. A new revised COP regulation shall be developed on UN-ECE level. Some parts might still end up as CP options. The aim of the group is to find a harmonised procedure, but if the CP have unique ideas they might become part of the COP text.

New topics will be introduced in the New Issues Task Force when they come up, the task force will not be closed beforehand.

The proposal for the extension of phase 2 was **adopted**, justification will be improved until Thursday.

Amendment Scenario of GTR:

N. Ichikawa explains the planned scenario for sending working documents to WP.29. Documents for the WP.29 session in November shall be submitted to GRPE in March as a working document, and in June as an informal document (gap of 7 months). An alternative would be to amend the current working document.

Coffee break discussion: Presentation by Rob Cuelenaere "foreseen procedure GTR#15 Amd4" (WLTP-21-xxe): the amended amendment 4 of GTR 15 will be sent to GRPE as an informal document. EU COM indicated that this will be the basis for the European WLTP 2nd act. It is planned to send this document to WP.29.

In general it is planned to go to WP.29 with new amendments at least once a year (November session). Additional amendments agreed upon in the IWG will be a new informal document for the June sessions of GRPE. This fits in with the procedures of Europe and Japan.

4. Working Documents and Informal Documents <D & RC>

✧ Summary of Working Documents (WLTP-21-03e)

ECE/TRANS/WP.29/GRPE/2018/2, 4 and 8

S. Dubuc gives a brief overview on the minor editorial changes in GTR 15 (language improvements, mistakes in formulae etc.) that he made in the Version 2, 4

N. Ichikawa reflects 4 major amendments in GTR 19: sealed tank system, tyre baking, witness tests and butane working capacity measurement.

India (Nakhawa) has questions about the soaking procedures. Explanations will be given in the technical report.

✧ Discuss Possible Informal Documents

Gear Shift Methodology (WLTP-21-04e)

H. Steven presents changes to the gear shifting procedure that evolved as the results of the Round Robin test with 30 vehicles. The amendments will close loopholes and achieve a common understanding for programming of the gear shift calculation tools. Examples: the definition of using unrounded values for calculation, determination of possible gears be used, rank order of requirements for calculation, upshift of 2 gears is allowed, (moving window of 10 seconds) Mandate for another round robin test to be presented until end of August is given by IWG.

All proposals were **adopted**.

The task force will be kept alive until the end of the next round robin test.

Improvement of GTR Text (WLTP-21-05e)

(i) 4WD Dyno,

I. Riemersma presents the outcome of the task force meetings: Japan requested not to have a mandatory requirement to test a 4WD vehicle on a 4WD dyno. The task force came up with an improved text. The updated text will also be incorporated in the European WLTP 2nd act. He presents an overview how 2WD and 4WD vehicles could be operated on dynos with different configurations. The draft text will be slightly renumbered to give more clarity (B. Coleman, I. Riemersma, S. Dubuc). The issue how to restrain a vehicle on the

dyno is not solved, yet. For now, there will only be a placeholder in the draft text. JSAE is working on a study on the effects of different restraining system on the emissions results.

Japan will only accept to send this text to WP.29 until the text on the restraining system will be incorporated.

(ii) Ki Determination,

Ch. Lueglinger: gives an overview on 7 open issues and proposals concerning the ki factor determination and calculation.

EU Com supports the proposal. Japan supports the proposal.

The proposal was **adopted** and will be sent to GRPE.

(iii) Minimum Delta Restriction (family definitions),

Ch. Lueglinger presents proposals on family definitions:

1. Using an interpolation method: The manufacturer has to take care of the linearity of the road load interpolation, or the worst case shall apply. Clarification: H is higher than L.

2. CO₂ interpolation range: for clarification a reference to Table A7/1 of Annex 7 is introduced.

3. Introduction of a Mid-vehicle for ICE vehicles.

4. Improvement of the text on extrapolation.

5. Introduction of a permission to increase the CO₂ and fuel consumption values for individual vehicles.

First reflection of Japan:

change of Interpolation range – not accepted (paper is presented)

EU-COM: some of the elements were presented for the first time, has to be discussed during the next task force meeting.

(iv) Permissible Wind Speed,

The gtr text for on board anemometry is completed, while stationary wind anemometry is still open: Stationary anemometry shall be used only when wind speeds over a period of 5 seconds average less than 5 m/s and peak wind speeds are not exceeding 8 m/s for less than 2 seconds. In addition, the average vector component of the wind speed across the test road shall be less than 2 m/s during each valid run pair.

Japan is partly not confident with the data that is currently presented by industry. The proposal was accepted in general, but has to be discussed in the task force, again. Ford and N. Ichikawa will prepare a written update and provide it within the next day. The text will then be introduced in the text.

- (v) EV Run-In, will be discussed in the EV meeting
- (vi) EV Warm Up Procedure, will be discussed in the EV meeting
- (vii) Drive Trace Indices

Only IWR and RMSSE will be applied. IWR will have a threshold of -2 to +4 %. For RMSSE an agreement is not reached, yet (discussed values: 0.8 to 1.3). Since EU-COM sees the need to correct CO₂ values, a bigger threshold of RMSSE is not a disadvantage. Japan does not intend to correct CO₂ values but wants to have a set of thresholds that indicate a properly driven cycle. Therefore a smaller value is necessary. At this time a harmonised solution is not anticipated.

It was **adopted** to delete all other drive trace indices other than IWR and RMSSE. The thresholds for IWR were **adopted**.

7.3 (b) shall be a CP option.

Europe will introduce 1.3 and Japan will introduce 0.8 in their regional legislation as a threshold for RMSSE.

A text to reflect the behaviour of EV vehicles during e.g. CS or determination of range will be developed by the EV sub group.

Adoption of Informal Documents to be submitted to 76th GRPE on Thursday this week.

5. Transposition to UNR <IS & D>

✧ Status report by **R. Gardner** ([WLTP-21-06e](#))

Adoption of Transposition Principle (under the level1/2 concept)

Letter to OLA ([WLTP-21-06e Appendix1](#))

Office of Legal Affairs. requesting a shortening of the time scale. If we achieve this, approach one would be the favourite, otherwise approach two would be the most likely one.

B. Coleman asks the contracting parties apart from Japan and Europe if they intend to introduce WLTP within in a short timescale, or if they intend to become a member of the 58 agreement before Japan and Europe will have finished the work of the transposition to have the possibility to take into account their problems. An answer was not given during the meeting.

6. Progress Report of each TF and SG EV <IS & D>

✧ Status Report by **Each TF Leader** (WLTP-21-07e)

GTR 19: it is intended to close the task force for now. Once the gtr will become a UN regulation, amendments will be made to the regulation, not to the gtr and therefore is not an issue for this group.

System power: A draft of a GTR text already exists, that needs further elaboration. According to H. Steven the existing text is already sufficient for the calculation of downscaling etc..

Supplemental tests: Cova gives a positive feedback on the progress the group made so far. Until now there is no agreement on the temperature for the low temperature test for ICE vehicles. A draft text is being prepared at the moment.

7. Meeting schedule <IS>

✧ Schedule of Upcoming Task Force Meetings

<https://wiki.unece.org/display/trans/WLTP+2018+calendar>

✧ 22nd WLTP IWG Meeting (17th PM ~ 20th April, 2018 @ Ispra)

✧ 23rd WLTP IWG Meeting (week of June 4th, 2018 @ Palais des Nations)

✧ 24th WLTP IWG Meeting (18th ~ 21st September, 2018 @ Tokyo)

8. AoB <IS or D or RC>

✧ Others, if necessary