Status report of the WLTP Informal Working Group

Prepared by WLTP IWG
0. Content

1. WLTP Overall Progress
2. Overview of „Request for GRPE Approval“
3. Amendment 4 of GTR#15 + request to adopt
4. Procedure of future amendments
5. Amendment 1 of GTR#19 + request to adopt
6. Revised working schedule + request to endorse
7. Progress in the Task Forces
8. Outlook for GRPE-77

Separate presentation:
9. Transposition into UN R (GRPE-76-24e/24a1e)
1. WLTP Overall Progress

- 2 Informal Working Group Meetings:
  - 20th IWG, 26-28 September, Seoul
    - Amendment 4 of GTR#15 (WLTP)
    - Amendment 1 of GTR#19 (EVAP)
  - 21rd IWG, 9 January, Geneva
    - Informal to amend Amd 4 of GTR#15
    - Informal to amend Amd 1 of GTR#19
    - Revised working schedule

- Request to GRPE-76:
  - Adopt amendments to GTRs #15 and #19
  - Endorse revised working schedule
## 2. Request for GRPEE Approval

<table>
<thead>
<tr>
<th>Working Items</th>
<th>Documentations</th>
<th>Next Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendment 4</td>
<td><strong>GRPE-76-xx</strong>: amending Amendment #4</td>
<td>✓</td>
</tr>
<tr>
<td><strong>GTR #19</strong></td>
<td><strong>ECE/TRANS/WP.29/GRPE/2018/4</strong> (technical report: GRPE-76-06e)</td>
<td>✓ Contents of GRPE-76-05e will be incorporated into Working Document and ✓ Submit Working Document to 175th WP.29 session (June 2018)</td>
</tr>
<tr>
<td>Amendment 1</td>
<td><strong>GRPE-76-05e</strong>: editorial amendment</td>
<td>✓</td>
</tr>
<tr>
<td><strong>PROLONGATION of Phase 2b activities</strong></td>
<td></td>
<td>✓ Provide letter to 174th WP.29 session (March 2018) ✓ Get job done based on new schedule</td>
</tr>
</tbody>
</table>
3-1. Amendment 4 of GTR#15
(Vehicle Exhaust Emissions and CO₂ measurement)


✓ To improve the gear shifting procedures (n\text{rated}, n\text{min\_drive\_up/down})
✓ To introduce bi-fuel and bi-fuel gas vehicles keeping in line with Regulation No. 83.
✓ To introduce the appropriate positioning of payload mass during road load determination.
✓ To exclude all Rechargeable Electric Energy Storage Systems (REESSs) that do not contribute to vehicle propulsion from monitoring.
✓ To improve the definitions, terminology and editorial correction.
✓ To define more specifically the difference in mass of CO₂ during charge sustaining between the test with the highest and lowest positive and negative electric energy charge.

< complete list can be seen in WLTP-21-03e_Appendix >
### 3-2. Informal to amend GTR#15 Amd 4

<table>
<thead>
<tr>
<th>Items</th>
<th>RESULTS</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear shift methodology</td>
<td><strong>IN</strong></td>
<td>WLTP-21-05_appendix1-Rev1</td>
</tr>
<tr>
<td>Dual axis dyno</td>
<td><strong>OUT</strong></td>
<td>will be <strong>IN</strong> after developed provisions of restrain system</td>
</tr>
<tr>
<td>Interpolation range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Minimum delta's as guidance</td>
<td><strong>IN</strong></td>
<td>Point (a) of Annex 4, 4.2.1.1.2. (Points (b), (c) and (d))</td>
</tr>
<tr>
<td>- Other elements on minimum delta</td>
<td><strong>OUT</strong></td>
<td>Annex 6, 2.3.2.2.</td>
</tr>
<tr>
<td>- Interpolation range 20% + 5g</td>
<td><strong>IN</strong></td>
<td>(Annex 6, 2.3.2.4-5)</td>
</tr>
<tr>
<td>- Introduction mid-vehicle</td>
<td><strong>OUT</strong></td>
<td></td>
</tr>
<tr>
<td>Permissible wind speed RL determination</td>
<td><strong>IN</strong></td>
<td>Annex 4, 4.1.1.1.1-2</td>
</tr>
<tr>
<td>Ki factor</td>
<td><strong>IN</strong></td>
<td>Annex 6, appendix 1</td>
</tr>
<tr>
<td>Drive trace index</td>
<td><strong>IN</strong></td>
<td>Annex 7, 7.2-3, CP option</td>
</tr>
<tr>
<td>Rolling resistance</td>
<td><strong>TBD</strong></td>
<td>GRPE: Keep original text or accept improvements</td>
</tr>
<tr>
<td>EV - run in</td>
<td><strong>IN</strong></td>
<td>Annex 8, 2</td>
</tr>
<tr>
<td>- warm up</td>
<td><strong>OUT</strong></td>
<td>On agenda SG-EV</td>
</tr>
</tbody>
</table>
4-1. Procedure of future amendments

< Up till GRPE-76 >

- Amendment 4 adopted at WLTP-20

- Sent to GRPE-76: …/GRPE/2018/2

- Discussed to amend Amd 4 at WLTP-21

Informal GRPE-76-xx to amend Amd 4 to GRPE

Request to GRPE-76: endorse …/GRPE/2018/2 + GRPE-76-xx

Requests to GRPE-76: Send Amd 4 to WP.29 in June 2018

will be used by EC to prepare 2nd Act EU-implementation – due in 2018
4-2. Procedure of future amendments

< After GRPE-76 – in case of positive decision GRPE >

Amendment 5 will be prepared at WLTP-22, -23, -24, [-25]

Draft new working document …/GRPE/2019/x to Jan 2019
GRPE
[and if necessary informal …]

Aim amendment to GTR#15 once a year, starting from June 2018 session WP.29

Amd 5: Jan 2019 GRPE
[Amd 6: Jan 2020 GRPE]
[Amd 7: Jan 2021 GRPE]

Note: flexibility if required or appropriate

Request January 2019 GRPE-78 to send Amd 5 to June 2019 WP.29
5. Amendment 1 of GTR#19
(Vehicle Evaporative Emission measurement)


Major Amendments:
- To include sealed-tank system test procedure
- To improve the procedure of tyres baking (vehicle preparation)
- To clarify witness by type approval authority
- To clarify BWC(Butane Working Capacity) measurement

Informal Document: GRPE-76-05e

Editorial amendments will be incorporated into
ECE/TRANS/WP.29/GRPE/2018/4
6-1. Revised working schedule

- **2008**
  - Phase1a
    - World-wide harmonized test cycles
    - Test procedure of pollutants and CO2/FC/EC/Range under 23degC condition

- **2013**
  - Phase1b
    - Handle remaining items from Phase1a

- **~2015**
  - Phase2a
    - Focus on evaporative test procedure

- **~2016**
  - Phase2b
    - Low temp.
    - Auxiliary devices
    - Durability
    - OBD
    - ISC, COP
    - E-lab. UNR

**We are HERE ~2018 PROLONGATION ~2020**
6-2. Justification of Phase2b prolongation

- New Issues (revealed during homologation process in EU and Japan) need to be solved in urgent.
- Development of "UNR_WLTP" need more resources than expected.
- WLTP IWG member accepted 2 years extension taking into account of their demands.

EXTEND by TWO YEARS
7. Status of each TF

✓ Please refer WLTP-21-07e for each TF progress

8. Outlook for GRPE-77

<table>
<thead>
<tr>
<th>Working Categories</th>
<th>Expected Actions</th>
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<tbody>
<tr>
<td>Transposition to UNR</td>
<td>✓ progress report and may ask guidance for improvement</td>
</tr>
<tr>
<td>New Issues</td>
<td>✓ provide Informal document for GTR#15_amd#5</td>
</tr>
<tr>
<td>Other TFs</td>
<td>✓ report latest status</td>
</tr>
<tr>
<td>GTR Amendment</td>
<td>✓ no document is expected</td>
</tr>
<tr>
<td>IWG Meeting</td>
<td>✓ request more than 1 day session</td>
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</tbody>
</table>