WLTP-27-08e

MINUTES of the 27th WLTP IWG & SG EV Meeting

Date and Time : 10:00 ~ 17:30 on 20th May, 2019 for IWG
9:30 ~ 12:30 on 21st May, 2019 for SG EV
Venue : Palais des Nations, Geneva. Switzerland

< > indicates the purpose of each agenda
IS : Information Sharing, **D** : Discussion, **RC** : Reach Consensus

********** WLTP IWG (20th May) **********

The conference phone number :
+ 41 22 917 09 00
Meeting code : 29280

1. **Welcome & Organization <IS>** (10:00-10:10)
   - ✧ Welcome by Chair
     - ✓ Thank you to Franjo for the well-organised and enjoyable meeting in Zagreb. Would like to pass on thanks to the Croatian ministry as well.

2. **Adoption of Minutes & Agenda <RC>** (10:10-10:30)
   - ✧ Minutes of 26th WLTP IWG meeting (WLTP-26-18e)
     - ✓ No comments during the meeting, but comments can be submitted over the next week before final upload to the UN website.

   - ✧ Proposed Agenda (WLTP-27-01e)
     <Conclusions>
     - ✓ Agenda adopted.

3. **Future Actions and Overall Status (develop informal document to be reported to the 79th GRPE) <D & RC>** (WLTP-27-02e) (10:30-12:00)
   The Chair introduced the document on the IWG mandate.
   - ✧ N. Ichikawa presented WLTP-27-02e_appendix - Draft Report for GRPE
     - ✓ Request for feedback by the end of 21st May.
     - ✓ Outlook for 80th GRPE in January:
       - ✓ N. Ichikawa suggested that a request for a one and a half day session is submitted and this can then be split between IWG and SG-EV.
       - ✓ Comment from F. Cuenot (UNECE Secretariat) - renovation work will begin in the Palais in October. This might make room availability extremely challenging.
       - ✓ Request to B. Thedinga to check availability at the offices of the EC.
       - ✓ Dates of next GRPE 13 - 17 January.
       - ✓ Clarity from R. Gardner that there will be 3 working documents submitted as part of the Transposition to UNR work programme.

- ✓ WLTP-27-02e – Request to extend mandate WLTP IWG and for guidance on future work plan.
  - ✓ Request to have mandate extended by 6 months to mid-2020.
  - ✓ The Chair gave an overview of the work plan.
  - ✓ I. Riemersma (EC) noted that CoP should be included?
  - ✓ Most items covered by Phase 2b can be closed by June 2020.
  - ✓ Discussion on what the focus of IWG activity should be post-June 2020.
    - Agreement to request to extend Phase 2b by 6 months.
    - W. Coleman (not formally on behalf of OICA) noted that Phase 3 is essential. The current situation with transitional provisions for the EU is not really in spirit of the 1958 agreement. This will take time to satisfactorily resolve. Can see the benefit of the IWG remaining alive. How is a GTR maintained without a dedicated WG? Would therefore see the best solution currently as being a reduced activity informal working group to work on Phase 2c.
    - Three potential options for extension of the mandate for the IWG were discussed:
      - Option 1 = Phase 2c comprising maintenance only, allowing reduced intensity of meeting schedule
      - Option 2 = Phase 2 concluded at the end of the existing mandate. Phase 3 launched, introducing new items plus maintenance and maintaining the existing intensity.
      - Option 3 = reduced Phase 2c, including RDE GTR, EU post-Euro 6 and transposition of low temp and OBD + Phase 3 from January 2021.
    - C. Vallaude (UTAC) noted that her preference would be Option 1, allowing more time to review and consider the necessity of further activity.
    - B. Thedinga (EC) has had an internal discussion on this, but no formal view yet. Fully support the 6 month extension of Phase 2b, but after that, EC view this as a hard stop and need to consider how it overlaps with post-Euro 6/VI discussions. It might be hard for the EC to support this activity within the timeframe being discussed. Based on this, it might be that the Phase 2c reduced activity option is the best option.
    - Japan prefer Option 1. There are several items that still need to be resolved but resource issues are still difficult.
    - B. Thedinga (personal comment) noted that if we need Phase 2c, why not ask for this extension now rather than 6 month prolongation followed by further extension.
    - N. Ichikawa (Japan) noted that Phase 3 needs new authorization. In GTR 15, there is reference to Phase 3 works so this would need to be amended.
    - D. Hannah (UK) noted the same position as others in terms of understanding what future needs and requests would be. No formal position yet, but there is definitely a need for maintenance activity of the GTR. Need to take stock of what has already been achieved, so might be worth taking some time before asking for further extension to mandate. Phase 2c might be a good option to allow that to happen.

- A. Marotta (EC) noted that he would like to understand the link between Phase 3 and further European activity
- W. Coleman noted that transitional provisions exist in Reg 83 in order to allow EC to not accept NEDC approvals. This current exemption is not within the normal practice of 1958 agreement, so this does need to be properly resolved. In post-Euro 6 legislation, this could become even more noticeable. The EU work might be coincidental to the discussion on emissions coming into IWVTA scheduled for 2023. The worst outcome would be that IWVTA accepts WLTP and then immediately the EU would have to step out of not only R83 but also R0. The desire to use time to evaluate where things have got to is understandable, but it would be useful to use the time wisely. The development and discussion process should be completely transparent.
- The Chair noted his preference that Phase 2b should not be extended beyond mid-2020. After mid-2020, the context is different. Items mentioned in our current mandate will not necessarily be the same ones needing work. Work would begin on maintenance of GTR #15 and GTR #19, which would include topics not listed in the current mandate. This is why it should become Phase 2c or Phase 3. There is a clear request for continuation of the IWG but at a reduced activity level and to spend some time to take stock of some other developments that are ongoing within the same timeframe.

✓ Requests to GRPE-79

<Conclusions>

✓ Extend Phase 2b mandate by an additional 6 months until mid-2020.

Do not at this stage ask for anything further. Just make reference to the desire of the group to continue beyond mid-2020, including but not limited to maintenance and transposition and therefore introduce the option to extend the mandate at the June 2020 session. This is to maximize the possibility to take stock of all new developments and be able to submit a well-considered, robust proposal for the next work activities.

✓ WLTP-27-02e-appendix2

<Conclusions>

✓ It was agreed that WLTP IWG would suggest to GRPE that the low temp test procedure should be included as an optional annex within GTR #15.

<Discussions>

- Overview of pros and cons for the three low temp test procedure development options (1. Separate stand-alone GTR; 2. Separate GTR with x-refs to GTR15; 3. Optional annex to GTR15)
  - A. Giallonardo (Canada) noted that the groups should look at the experience of EVE on power determination. The conclusion from this was that an even longer WLTP GTR is actually preferable, as having separate GTRs does not reduce the complexity. The usage of the regulation needs to be considered. If low temperature is only ever

going to be part of WLTP (and not referred to or from elsewhere) then it makes sense for it to be in GTR15 and not to be a separate GTR. System power determination was agreed to be in a separate GTR as it may be used outside of the initial scope.

- W. Coleman noted that should also be focus on the legal compliance. There is also an RDE GTR being developed. There is still a discussion on whether this goes into UN R WLTP or is introduced as a separate UN R. If it is decided that they should be in the same legislation, this concept should be equally applied to low temp. The logic of putting both in the same UN R does not mandate the same principle for GTRs, but whatever is decided for one, should be applied for all.
- P. Bonsack (Switzerland) noted that as it is linked to WLTP, it should be considered as part of it.
- India noted that there are now many separate topics being discussed. Power determination will be used for other topics. If the topics are kept in separate GTRs, it makes it easier for CPs to implement the issues they want in their regional legislation. Question to UNECE Secretariat on whether there is an issue of cross-referencing GTRs is a technical problem or just simply that there is no precedent for doing this.
- F. Cuenot (UN) stated there is a preference for static cross-references but this makes it much more administratively burdensome. For this reason, it is not a preferred option by the secretariat.
- R. Gardner questioned whether, if the requirements were introduced as optional annexes, that would resolve the issue?
- H. Nakhawa (India) noted that the low temp provisions would probably be helped by this, but the other topics such as RDE, CoP etc, would be better treated as separate GTRs for regional implementation.
- F. Cuenot stated that optional annexes have to be fully justified.
- R. Gardner noted that option 1 to have completely stand-alone GTR for low temp had been ruled out. The drafting work for option 2 and 3 would be moderately similar, but he would prefer Option 3.
- India noted that GTR #15 already has several annexes, not optional, so it could be confusing for Contracting Parties. Could the GTR be split into optional and mandated parts?
- R. Gardner noted that this approach could be taken.
- India also noted that low temp is easy because there is justification as to why this should be optional. For CoP and durability, the justification is not as obvious.
- R. Gardner noted that CoP would only be technical requirements anyway. CoP and durability have already been agreed to be included in GTR #15 as optional annexes. If confirmation could be sought from this GRPE on how to handle in the GTR that would be really useful.

- F. Cuenot noted that GRPE would want to know what the IWG thinks is the best option.
- R. Gardner, A. Giallonardo all think Option 3 is the best solution
- N. Ichikawa believes that there was already guidance from GRPE and that a separate GTR is preferred. Clear justification is needed as to why there is a change of approach now.
- F. Cuenot and D. Hannah noted that duplication of texts (as would be the case for option 1) has caused issues in GRE and we should learn from that experience by avoiding any such duplication.
- It was asked whether this decision impacts on the OBD discussion?
- N. Ichikawa noted that the OBD TF want a separate GTR. Does this make sense if low temp is included as an optional annex?
- The Chair mentioned that light duty OBD could be included in the Heavy Duty GTR
- F. Cuenot noted that to avoid having duplicate requirements in different GTRs, the UN's preference would be to have a common OBD GTR with a common part and then specific parts for light duty, heavy duty and possibly L cat.
- N. Ichikawa noted that this would not be possible in the designated timeframe
- F. Cuenot noted that it should be considered over the medium and longer terms though.

<Lunch 12:00 – 13:30>

4. Improvement of GTR#15 Amd#5 <D & RC> (13:30-14:00)

✧ Status report from low temp TF (P. Bonsack)
- ✓ Confirmation that subjects where contributions are needed from SG-EV are on the agenda for the meeting tomorrow morning.
- ✓ N. Ichikawa suggests the point in the status report stating that justified proposals are welcome at any time is too general to provide a structured approach.
- ✓ Could host the documents in UN website. The TF will take this into account.

✧ Update "modification of Tyre RRC class", if available (oral only)
- ✓ Update from W. Coleman – Informed that an update of the tyre rolling resistance (RRC) table was not adopted by the EP, there may even start a new initiative to improve the RRC labelling system. This proposal has led to resistance within different lobbyist parties. Nothing will happen before European Parliament reconvenes, OICA will keep IWG informed.

✧ Proposals to improve GTR#15&19 by **All** (WLTP-27-03e_appendix-aa to zz)
- ✓ Gearshift update from H. Steven on the task of developing programming code for the determination of the gear shift pattern, including a validation phase.
- ✓ I. Riemersma asked whether the validation is only against the rules, which have been inserted in annex 2 or against the code?
- ✓ H. Steven confirmed that the validation is against both.

- ✓ India asked whether it will be possible to integrate the Python software with the vehicle?
- ✓ H. Steven noted that this is the intention.

✧ Evaluation of the hub-dyno from EC (WLTP-27-03e_appendix)

- ✓ JRC have been doing some studies on whether hub-dynos can be used for regulatory purposes as well as for development.
- ✓ B. Thedinga gave a presentation on this on behalf of JRC. A test plan has been developed to determine the equivalency of this concept over different cycles and test conditions.
- ✓ C. Lueginger noted some concerns around the tyres – warming up of the tyres, compensating wheel inertia, and as the most challenging factor the correction of the dynamic wheel radius.
- ✓ N. Ichikawa noted that Japan are also working on this so they could also share data.
- ✓ K. Engeljehringer noted that a decision is needed as to whether this is only accepted for tailpipe emissions as the hub dyno will impact on the thermal condition of the vehicle, due to a different airflow under the vehicle leading to a different catalyst temperature. Set-up also takes longer. As an alternative though, why not?
- ✓ India noted this was a new feature and they would like to better understand the dyno equipment before being able to consider their view.
- ✓ B. Thedinga will give more information once the initial study results are in a position to be presented.

5. Transposition TF <D & RC> (14:00~15:45)

✧ Updated Status of the optional items by **R. Gardner** (WLTP-27-04e)

- ✓ R. Gardner presented how it will work.
- ✓ W. Coleman noted his understanding that that 00 series has level 1a and 1b. 01 series will then have top level 2, in place of 1a and 1b. 01 series would be then subject to mutual recognition and if a VM wanted an approval to only a regional configuration, then 00 series would be used. This is a neat solution.
- ✓ Australia questioned the implications of this for UN R 83-08, given that you cannot obtain a 00 until 01 is in place?
- ✓ W. Coleman noted that "Special provisions to allow approvals to be granted to regional level before top level is in force." If this is allowed, it would solve the issue.
- ✓ It was noted that Japan need to discuss the content, once R. Gardner has circulated the document.

✧ Updated status of Durability by **A. Marotta** (WLTP-27-05e)

- ✓ Update given by N. Ichikawa. The list of 11 open issues has been reduced to 7, and one issue is agreed with a possible modification.
- ✓ A. Marotta noted that concerning the point in orange (assigned DFs), there is an expectation that OICA should make a first proposal on assigned DFs for diesel vehicles. On durability family and extension concept within Japan and EU, EU initial position will be found and then engagement with other stakeholders will try to find a resolution to this.

- ✓ N. Ichikawa noted that JAMA will propose a procedure and then see how it goes with implementation.
- ✓ W. Coleman noted that remote sensing may mean that an evaluation can be made of a vehicle's durability.
- ✓ India questioned whether it needs to be tested on both the 3-phase for Japan and 4-phase for Europe even if one is used to start with.
- ✓ W. Coleman stated that one would just drive the European test and meet the JPN limits after 3-phases and the EU limits after 4-phases. The post-processing is the key. The only issue is the OVC-HEV, for which you would need to perform two separate tests, one for JPN and one for EU.

✧ Updated status of COP TF by **I. Riemersma** (WLTP-27-06e)

- ✓ I. Riemersma gave an update on the COP TF.
- ✓ A. Dijkhuizen (RDW/the Netherlands) had received one dataset from an additional OEM. They now have 9 datasets.
- ✓ India noted that utility factors are not being harmonized
- ✓ I. Riemersma noted that critical parts should be harmonized. The test is harmonized but what is then done with the results of the test is non-critical.
- ✓ The Chair expressed thanks to all those actively involved in the transposition task forces.

<Break 15:45 – 16:15>

6. Expected Actions during 28th IWG meeting <IS> (WLTP-27-07e) (16:15~16:45)

- ✓ N. Ichikawa gave a presentation on what should happen in the next IWG meeting
- ✓ The Chair emphasized that if the IWG is to keep to the planned timeline, the 28th meeting will have to finalise a lot of the outstanding items.
- ✓ A. Marotta requested that the transposition agenda items be moved to earlier in the week because this is more critical in the timing of the deliverables than for those agenda items not requiring a Working Document for January 2010 GRPE.
- ✓ R. Gardner agreed that the working document preparation must take precedence over the informal documents.

7. Meeting schedule <IS> (16:45~17:00)

✧ **Schedule of upcoming meetings**
https://wiki.unece.org/display/trans/WLTP+calendar

✧ 28th WLTP IWG meeting in conjunction with Low Temp. TF
(23rd PM to 27th AM, September 2019 @ Ittigen, Switzerland)

✧ 29th WLTP IWG meeting (January 2020 @ Geneva)

✧ 30th WLTP IWG meeting (Spring 2020 @ **TBD**)

8. AoB <IS or D or RC> (17:00~17:30)
Others, if necessary

********** WLTP SG EV (21st May) **********

The conference phone number :

+ 41 22 917 09 00

Meeting code : 65208

9. Sub-Group EV <IS & D & RC> (09:00-12:30)

(WLTP-SG-EV-26-01~ZZe)

- ✧ Low Temp. unique procedure
- ✧ COP unique procedure
- ✧ Text improvement
- ✧ EVE updated information, Next actions

See separate minutes.

**** Meeting is facilitated by Leading Team and each TF Leaders ****

Leading Team	**SG EV Leading Team**
Rob Cuelenaere (Chair)	Per Ohlund (Chair)
Daisuke Kawano (Vice Chair)	
Anna Lindt (co-Secretariat)	Matthias Naegeli (co-Secretariat)
Nick Ichikawa (co-Secretariat)	Nick Ichikawa (co-Secretariat)