# Meeting notes of the 2nd meeting of the COP TF

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Meeting date: 12 December 2018

## Meeting agenda

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Participants are listed in the table at the end of this document.

## Meeting notes

### Opening

Iddo Riemersma welcomed the participants. Since the last meeting, the following documents were received:

* Bill Coleman sent a presentation that was shown at the WLTP IWG meeting in Paris in 2015. This will be introduced under agenda item 5 (document COP Type 1 Appendix 2 comparison (early fail decision).pdf)
* Team Japan has provided an update of the comparison table, with more information about the COP procedure in Japan. The details of that procedure could unfortunately not be shared, due to the recent situation concerning the transposition of WLTP. (CoP comparative analysis v3-Japan.xlsx)
* The EC has prepared a document with Terms of Reference. (document COP Taskforce - ToR v3.1.docx)

All documents for this meeting can be found at the UN website: <https://wiki.unece.org/display/trans/Cop+TF+2nd+session>

### Minutes and open action items

Comments have been received from Sophie-san, Elodie and Bill. The comments have all been addressed in version 3 of the minutes, which is uploaded to the UN server. There are no further comments to the minutes, and so they were adopted.   
The action list with updates on the status of the actions is included at the end of this document.

### Terms of Reference (ToR)

A document with the ToR was prepared by the EC (document [COP Taskforce - ToR v3.1.docx](https://wiki.unece.org/download/attachments/75531645/COP%20Taskforce%20-%20ToR%20v3.1.docx?api=v2) ), and was briefly introduced by Bart. Rob Cuelenaere responded by saying that as WLTP chair it is appreciated that this was prepared, and asked this document could be introduced at the next IWG meeting. Nick-san gave an initial feedback by indicating that the Type IV test is missing in the scope, and that for the timing it should state May 2019). All participants are invited read the document and -if considered necessary- provide feedback. Any feedback should be received in advance of the next IWG meeting in January 2019.

### Commission position on the WLTP CoP TF

Alessandro introduced a presentation with the position of the EC (document Commission position on WLTP\_CoP BT.pptx). Main message is that the Commission proposes to use the COP procedure in EU-WLTP as basis for the work of the COP TF, being the procedure that was specifically developed for WLTP and experience with the method has been gathered. This contradicts the earlier specified approach (to take the UN R83/R101 as a basis, but given the short timeframe it would be better to build on the European COP. This does not mean that the Commission is not open for improvement of the procedure; input from the procedure in Japan and pass/fail criteria which have demonstrated to be an improvement can be used to upgrade the procedure. Effectively the body text of the EU-WTLP is used as a template. This approach was generally accepted.

### 5. Presentations by Industry

Bill introduced the presentation which was shown during the WLTP-IWG meeting in Paris (2016) based on datasets of Renault and the JRC – see document COP Type 1 Appendix 2 comparison (early fail decision).pdf. It shows that there is a risk for ‘false fails’ because the decision is reached already within 3 to 4 tests. He said this concern has been raised by ACEA ever since the Commission first introduced this. As a result, manufacturers have to declare higher CO2 to prevent a stop on the production because of a failed COP.

Norbert (being one of the developers of the European COP procedure) responded by stating that the shown dataset seems to be specifically selected to criticize the procedure. He indicated that this pass/fail criterion leads to 6 – 8% wrong decisions (either a false fail or false pass). The procedure was developed such that test-to-test variation and some production variance is accounted for in the “A” factor, but for larger production related spread the manufacturer would have to apply a safety margin by declaring a higher CO2 value.

Bill responded by saying that the current climate does not allow over-declaration of CO2 and that while a 6 – 8% risk of a false fail is unacceptable for COP, in contrast to ISC where the consequences of a fail are much smaller.

Nick-san stated to share the concerns of ACEA that false fail decisions should be avoided and proposes to keep the R83 procedure. A margin would be needed to allow for justified differences between actual and declared value.

Jürgen showed a presentation for ACEA. Main concern from industry is that a decision is mostly reached within a sample of 3 vehicles, while the confidence is still poor. He also stressed that the applied evaluation formula does is different from the common criteria in statistical literature, and that a similar evaluation between ISC and COP should be applied. Two alternatives are being evaluated by ACEA, one by variables and one by attributes.

Iddo indicated that ISC and COP do not necessarily have to be evaluated in the same way since ISC has more variance due to the customer use and applied maintenance. Also the consequences of a fail on ISC and COP are different.

Alessandro asked for clarification of the proposal. Jürgen emphasized that in contrast to the EU-WLTP , R83 considers that the confidence is low for a small sample size. He argued that a balance between sample size and the statistical confidence needs to be found, hence more vehicles should be tested to make a decision. Alessandro confirmed that the Commission is open to discuss alternative pass/fail criteria schemes. Bill added that there is also a connection between the frequency of sampling and sample size that should be considered.

Iddo asked what the design criteria were for the evaluation in EU-WLTP. Norbert explained that the Commission had asked for a procedure where the sample volume was restricted, with a maximum of 16 vehicles instead of 32, and preferable earlier. The current procedure reaches a discussion for pollutants in an average sample size of 5 tests, and within 3 tests for CO2. The procedure for pollutants is copied more or less from R83, and was then applied to CO2 as well, which may explain why the sample size is low for CO2. Norbert also stated that it was decided that the average value of the tests should be considered. This rules out the method where each outlier has the same weight, irrespective how much the value lies outside the threshold.

Iddo summarized wrapped up the discussion as follows: for developing the harmonized COP pass/fail criteria we need to

* Focus mainly on CO2, for pollutants there are less concerns on the pass/fail.
* Weigh the consumer and producer risk by considering the confidence intervals.
* Evaluate the sample size, also in relation to confidence and the sample frequency.
* Include the average emissions of the sample.

### 6. COP data availability

During the first meeting it was concluded that it is not easy to share COP data.

Annette shared an idea where manufacturers might analyse the distribution and standard deviation of normalized COP data (actual value divided by declared value) and then prepare a set of synthetic data with the same spread and distribution. Jürgen had a similar idea to generate random data on the basis of existing data. Norbert remarked that also the ‘skewness’ (or bias) of the data would be necessary.

Iddo said to be open for such a solution, but only if some assurance could be offered on the authenticity of the data. This could be given e.g. by allowing a third party (preferably from a TAA) to witness the data analysis. Bill will act as contact person on this topic and coordinate activities within ACEA to gather COP data.

### 7. Comparison table

The table was not discussed in detail, but Alessandro proposed that the COP TF would prepare a draft text on the basis of (EC) 2017-1151 where the elements that are still under discussion be highlighted or indicated in brackets.

Nick-san was asked when the specific COP procedure which is developed in Japan can be shared with the group. At this moment he cannot give any confirmation on when this would become available.

### Timeline and next meeting

The next meeting will be held on 23 January from 9 to 12:00 h. CET.

## Action list

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| *Item* | *Name* | *Action* |
| 1-1 | Nick Ichikawa | Check the table and complement it with any missing information and the new information from the updated document  > An updated table was received. Action completed |
| 1-2 | Iddo Riemersma | Modify table according to outcome discussions and distribute > Table was modified and consolidated with input from Japan, action completed. |
| 1-3 | Arjan Dijkhuizen | Check the possibility to deliver COP data through RDW  > No data available yet and this may take a few months, but there is a fair chance that this route may work. Action ongoing. |
| 1-4 | Elodie Collot | Check the possibility to deliver COP data through UTAC  > No data available yet, more time is needed. If possible this will be a combined effort between UTAC and RDW. Action ongoing. |
| 1-5 | Bill Coleman | Send presentation shown in the Paris meeting + check delivery of NEDC or normalized data > Presentation was distributed. Delivery of COP data was discussed in ACEA, problem is the sensitivity of the data. Individual manufacturers may decide to share data with a confidentiality statement. Action ongoing. |
| 1-6 | Iddo Riemersma | Check with Team Japan if it is possible to have a face-to-face meeting > This was unfortunately not possible. Action completed. |
| 2-1 | Iddo Riemersma | Include the ToR into the status report for the WLTP-IWG meeting in January 2019 |
| 2-2 | All | Provide feedback to the ToR before next WLTP-IWG meeting |
| 2-3 | Bill Coleman | Coordinate the activities to gather COP data from ACEA members |
| 2-4 | EU-Commission | Prepare a draft text proposal for the WLTP COP with discussion items highlighted |

## Participant list

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| *Name* | *Organisation* | *Present at this meeting* |
| William Coleman | VW/ACEA | Y |
| Jürgen Leu | Opel/ACEA | Y |
| Franco Guazzotti | Iveco/ACEA | Y |
| Shumpei Miyazaki | MLIT/JASIC | Y |
| Nick Ichikawa | Toyota/JASIC | Y |
| Mayumi Morimoto | Honda/JASIC | Y |
| Arjan Dijkhuizen | Netherlands/RDW | Y |
| Franjo Akmadza | Hyundai/KAMA | N |
| Elodie Collot | France/UTAC | Y |
| Norbert Ligterink | Netherlands/TNO | Y |
| Alessandro Marotta | EC | N |
| Bart Thedinga | EC | Y |
| Rob Gardner | TRL/EC | Y |
| Biaggio Ciuffo | JRC/EC | Y |
| Penny Dilara | EC | Y |
| Iddo Riemersma | Sidekick/EC | Y |
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