Draft meeting minutes
14th Session of the Subgroup 4 (Usage Phase)
of the IWG on Automotive Life Cycle Assessment
(IWG on A-LCA)

Meeting documents available at:
https://wiki.unece.org/display/trans/SG4+-+14th+meeting

Agenda

Time		Agenda Item	Lead	Working Paper	Purpose or Target
11:00 ~ 11:05	1	Welcome and introduction	Chair	NA	Introduction
~ 11:10	2	Adoption of the agenda	Chair	A-LCA-SG4-14-01	Agreement
~ 11:15	3	Adoption of the last meeting minutes	Chair	A-LCA-SG4-13-06	Agreement
~ 11:25	4	Decision Status SG4	Chair	A-LCA-SG4-14-02	Presentation
~ 11:35	5	Functional Unit Draft	Chair	A-LCA-SG4-14-03	Discussion Proposal
~ 11:50	6	In-use Energy Consumption Draft	Chair	A-LCA-SG4-14-04	Discussion Proposal
~ 12:05	7	Updates on Representative Vehicle	OICA	A-LCA-SG4-14-05	Presentation
~ 12:15	8	Feedback Second Life/Usage in secondary countries	Chair		Discussion
~ 12:30	9	Any other business & Closing	Chair		Closing

Meeting

Agenda Item 1: Welcome and introduction

The chair welcomed the participants to the 14th SG4 meeting and provided some overview of the main topics for today's meeting. In addition, the chair presented the agenda.

Agenda item 2: Adoption of the agenda

The agenda was approved by the participants.

Agenda item 3: Adoption of the last meeting minutes

The last meeting minutes were approved and adopted by the participants.

Agenda item 4: Decision Status SG4

Chair - OICA: Sam T. presented a slide to frame the status of discussion inside SG4 on relevant topics, such as: system boundaries, service life, energy consumption, leakages, maintenance, representative vehicle and levelling concept. The Functional Unit definition has to be finalized by the group and proposed to the IWG. Further discussion on service life will follow in the next meetings.

Chair – JRC mentioned that all the topics in list will be included in the draft document "SG4 Table of Contents" that in the following week has to be edited, reviewed and delivered to SG7 Drafting leaders, by September 13th. The mentioned document can be found on the corresponding wiki-page. It deals with listing out all the processes that are meant to be included in SG4 and the data to be collected and used, whether they are primary or secondary. The chairs asked for comments, modifications and feedback to the members.

- Ricardo mentioned that most of the items have been already developed in the Transensus project, hence it could be used as solid reference.

See document(s): A-LCA-SG4-14-02

Agenda Item 5: Functional Unit Draft

Chair – JRC presented a draft text with the definition of Functional Unit to be proposed to the IWG. Considering some assumptions, the functional unit (FU) for "category 1 vehicle" is defined as 1 km of distance travelled.

- ICCT highlighted that it is better to define FU as "1 km of distance travelled over vehicle lifetime". It was also mentioned that the assumption of 1 person occupying vehicle cabin is beneficial to ensure comparability between different vehicles and different regions.

See document(s): A-LCA-SG4-14-03

Agenda item 6: In-use Energy Consumption Draft

Chair – JRC presented a draft text with the definition of the In-use Energy Consumption to be proposed to SG7. The idea is to use certification values as a more accurate representation of in-use energy and fuel consumption, and later applying both a "discrepancy factor" to account for the recognized gap between TA values and RW consumption and a "deterioration factors" to account for efficiency degradation of powertrains such as PHEVs and FCEVs.

- Ricardo clarified that the unit for ICE consumption should be energy/km hence MJ/km. The outcome is that a clarification on the unit conversion process is needed in order to have a clear understanding of what belongs to SG4 and what to SG6.
- ICCT reiterated that it is better to adopt Energy/km as consumption unit since

gCO2/km are tail-pipe emissions and those can be different from TtW emissions, especially for biofuels. Moreover, CO_2 values are fuel specific hence they should be converted into energy in order to account for different fuel compositions in different regions across the globe.

- Following the discussion started during the 12th SG4 meeting, the chair provided a visual schematic to describe the calculation flow and how and where the unit conversion to energy (MJ or kJ) should take place, as depicted in the previously uploaded document. After accessing the flowchart, the members confirmed that there is an alignment on how to convert fuel consumption to gCO_2-equivalent.
- Vitesco (Rauch M.) asked for clarification regarding system boundaries between SG6 and SG4 regarding BEV/PHEV charging ports. The chairs replied that whatever is happening inside the the charging station belongs to SG6, while OBC losses belongs to SG4 and they are normally part of the homologated value. A visual schematic will be drawn and presented in the next meeting to facilitate the discussion.

See document(s): A-LCA-SG4-14-04

Agenda item 7: Updates on Representative Vehicle

Presentation from OICA: G. Bedenian presented a set of slides with a draft proposal about representative vehicle (RV), developed together with SG3 colleagues. The concept implies creating LCA families for RV based on different parameters, in a way that resembles IP family for WLTP. This is essential since RV stands for a group of vehicles, hence one RV represents one “LCA group”.

G. Bedenian introduced the “Base-line approach” to evaluate CO_2 eq emissions for any vehicle inside the LCA group; it is applied after excluding the carbon emissions from the use phase and the traction battery from the total carbon emissions. It is a method that minimizes the disadvantages of the “single RV” while extrapolation is possible with only one LCA.

- Ricardo suggested to take into account a mid-case scenario for the extrapolation rule, something in between best and worst case scenario.
- JRC pointed out that, depending on the manufacturer, the number of vehicle types involved in the LCA analysis (hence the number of LCA families to be evaluated) can vary significantly from a dozen to a thousand of cases.
  It was also suggested to ensure that this approach is compatible with Light Commercial Vehicles, especially for multistage vehicles; multi-stage vehicles are vehicles that are not completely built by an OEM but finalized by a bodybuilder, such as motor caravans, ambulances, refrigerator trucks, mobile cranes, tippers and quite a few more.
- Following up Ricardo’s comment, JRC also proposed to consider a more robust approach that is less likely to be constantly update according to best or worst case vehicle in terms of CO_2 eq. It was proposed to consider for each LCA group a slope (a line between best and worst vehicle) and an offset.

This topic will be further discussed in the next meetings.

See document(s): A-LCA-SG4-14-05

Agenda item 8: Feedback Second Life/Usage in secondary countries

The chair highlighted that an in-depth discussion about Exported vehicles out of region of sales and Second life of parts is needed. The topic of environmental impacts ELV management out of sale region is controversial and SG5 has contacted SG4 to bring a common assessment methodology to the IWG overarching discussion. To this regard, Japan has shared a one-slider from SG5 involving two approaches: Option 1 envisages modelling the secondary usage and ELV with an average global/regional value, while Option 2 simply cuts off them from the scope of the analysis.

- ICCT commented the slide since the message appeared to be not clear. ICCT pointed out that some vehicles stay inside the primary country EoL while some are exported. In the case that there is not enough solid data about vehicle usage in out of sale regions, the full service life of vehicles that remain can be adopted as a scenario for those vehicles who are exported.
- Japan commented that some CPs are not able to take care of second life in other regions, and car dealer conditions are different in other countries and this affects the existing fleet age. CPs might use available statistics about vehicle recycling age and apply those numbers to vehicle that end up in unknown whereabouts.

See document(s): A-LCA-SG4-13-05

Agenda item 9: AOB & Closing

The chair invited the participants to share their additional topics/remarks. No comments arose from the audience.

The chair informed the participants that the next SG4 meeting (15th) will be held online on the 23rd of September, while the next IWG A-LCA meeting will take place on the 10th of September.

The chair thanked all the participants for their participation and formally closed the meeting.

See document(s):

ANNEXES

Participants list: