

17th IWG A-LCA minutes

Day 1

0. Next steps from Day 1 & 2

- SG6 will draft detailed guidelines on including operational infrastructure emissions (e.g., transmission and distribution losses) and assess how to handle infrastructure construction emissions. A progress report will be shared at the next meeting.
- SG3 to provide concrete examples of how to describe LCA requirements at each level. They also planned to offer case examples to harmonize the use of "hotspot" or offer more neutral terminology.
- SG-1 and SG-7 will refine the framework for secondary data usage and work on harmonizing data reporting methodologies for Level 3 and 4 reporting.
- SG-7 will continue drafting LCA rules with a focus on language consistency and sentence structure. The team will provide examples and case studies to aid in harmonizing the language used across different parts of the documents.
- All Subgroups (SGs) will continue working on their respective drafts. More detailed outputs are expected at the next meeting, with a particular focus on integrating infrastructure emissions, material flows, and energy use methodologies.
- SG-4 and SG-5 will exclude second-use vehicles from initial deliverables and will work on refining the methodology for handling vehicles exported to secondary regions by 2025.
- Concerning emissions due to transport of components, materials and vehicles, SG5 provided the calculation model (ton*km). SG3 supported the model. SG1 to hold a meeting on this issue. SG5 is requested to provide the basic concept.
- Continued collaboration with external initiatives like TranSensus LCA, IMDS, and Environment Canada will ensure that the A-LCA methodologies align with broader automotive sector efforts and contribute to industry-wide consistency in LCA reporting.

1. Welcome and Opening Remarks

- Chair opened the session, thanking participants for their presence.
- Toyota VP Fuwa welcomed the group, emphasizing the importance of carbon neutrality, standardization, and the role of the LCA in supporting environmental strategies.
- Banita Fidyova, the new program coordinator for AECC, was introduced.

2. Adoption of the agenda

- The agenda was reviewed and confirmed, with slight modifications noted for the order of some items related to the drafting and interactive sessions. The next day's meeting was confirmed to begin at 9:30 AM at the European Commission venue. A

safety video was played, outlining emergency procedures for the in-person attendees at Toyota Europe.

3. Adoption of the last meeting minutes

- The minutes from the last meeting were briefly reviewed and adopted without objections.

4. Overarching Aspects

a. Infrastructure (system boundary)

- i. Topic: Emissions related to infrastructure were a major point of discussion, particularly in relation to operational infrastructure such as electricity grids and natural gas pipelines as well as construction of vehicle production plants and equipment, as mentioned by US, Ricardo, ICCT.
- ii. The group emphasized the need to include transmission losses from electricity, natural gas distribution, and other fuels in the Life Cycle Assessment (LCA). This inclusion is seen as crucial to obtaining an accurate picture of environmental impacts, especially in the operational phase of vehicles.
- iii. It was acknowledged that these losses could vary significantly depending on the region and fuel type, which would require the development of a flexible but standardized approach for inclusion.
- iv. There was debate between Ricardo, Concawe, US about whether infrastructure construction emissions (e.g., building power plants, renewable energy installations) should be included in the LCA. While construction emissions are a smaller component for fossil fuels, they become more significant when considering renewable energy sources such as wind and solar. JASIC: In the case of inclusion what will the lifetime of values?
- v. OICA & CLEPAL The discussion on infrastructure inclusion is mainly related to level 1 & 2
- vi. Action item:
 1. The group agreed that operational losses should be included and Subgroup 6 will handle the drafting of the relevant guidelines for the infrastructure.
 2. For infrastructure construction emissions, especially for renewables, the group acknowledged the need for a robust method to account for emissions from building energy plants, but further work is required to develop practical guidelines. SC6 will investigate data availability and regional applicability before providing further drafts.

b. Secondary data

- i. The use of secondary data was discussed, especially in relation to harmonizing methodologies across LCAs. Secondary data refers to existing data sources (e.g., databases like Ecoinvent or GaBi) rather than primary data collected specifically for a project.
- ii. It was agreed that a clear set of criteria should be established to govern when and how secondary data can be used. This is particularly important for ensuring consistency in Levels 3 and 4 reporting, where the inclusion of granular and comparable data is critical.
- iii. Action:

1. SG-1 and SG-7 were assigned the task of creating a secondary data framework, particularly for high-level reporting (Levels 3 and 4). The framework will outline how and when secondary data should be used, and ensure it is consistent with best practices.

5. Drafting Coordination by SG-7

- i. Caroline Mir SG-7 leader. The group discussed the importance of harmonizing the language used in drafting regulations.
- ii. Word and Powerpoint Templates for drafting is providing on the [A-LCA wiki](#).
- iii. It was recommended that the drafting teams work on high-level structure first (e.g., general rules for sentence formation and document flow) before diving into specific technical requirements. This would help prevent extensive revisions later in the process.
- iv. SG3 & SG6 draft isn't available yet.
- v. Action item:
 1. Examples and guidance were requested to ensure clarity in the drafting process, including writing style for a resolution document.
 2. The drafting teams will continue their work, aiming to finalize the first draft with initial descriptions for reporting structures and to be provided to SG-7 as soon as possible

Leveling Concept and Reporting

- b. OICA & Korea: The leveling concept for LCA methodologies was introduced and discussed, focusing on how to approach LCA differently depending on the context for intended use (strategic vs. reporting use).
 - i. The use of LCA expands from strategic decision-making to detailed reporting requirements (e.g., regulatory submissions), the methodologies need to adapt to these different uses.

Concept Overview:

- ii. Level 1 and 2: These levels are focused on strategic decision-making. The flexibility allowed here lets LCA practitioners use generic models that apply to a broad fleet of vehicles or product types. Level 1 focuses on broader, research-oriented goals such as policy development, while Level 2 allows OEMs to conduct internal research for product development and marketing purposes.
 - iii. Level 3 and 4: These levels cater to reporting. Level 3 is geared toward reporting to government programs and includes more specific requirements, such as the use of representative vehicle models and the collection of primary data from the supply chain. Level 4, the most stringent, involves full life-cycle modelling and the use of primary data across the entire supply chain, representing the most precise level of reporting possible.
- Hotspot Analysis:
 - The term hotspot parts (referring to vehicle components responsible for a large portion of emissions, like batteries or gliders) was discussed. US EPA questioned the current definition of hotspot and too much focused on

specific technologies. Suggestions were made to replace this term with a more neutral, technology-agnostic description that could apply to any significant emission source in a vehicle.

- The group debated how to best incorporate hotspot analysis into LCA reporting without oversimplifying or complicating the language.
- Action item
 - SG3 agreed to provide concrete examples of how to describe LCA requirements at each level. They also planned to offer case examples to harmonize the use of "hotspot" or other more neutral terminology.
 - SG-1 and SG-7 will work together to define the single harmonized methodology required for Level 3 and 4 reporting, ensuring consistency across OEMs.

6. Status of SGs

- SG-2 The subgroup is working on harmonizing methodologies for material flows and energy use in automotive production. This includes the development of new approaches to improve data consistency across different regions and manufacturers, including setting energy and material system boundaries. Questions raised are related to incomplete IMDS databases, or material composition unknown and common LCI databases used today are not free.
- SG-3: Agreement reached on LCA level, declared unit and logistics. Open items are primary data sharing, data quality assessment, hotspot definition. Declared unit definition is related to part or vehicle needed for SG-4 functional unit. Next meeting 1st, 10th, 15th meetings on merging CLEPA and JAPAN drafting. Unified reporting for reporting will be under SG1 discussion.

7. Collaboration with Other Activities

7.1 TranSensus LCA - A-LCA-17-12

Presented by: Liten

An update on the TranSensus LCA initiative was given, which is aimed at creating harmonized LCA methodologies across the EU automotive sector. This initiative aligns closely with the work being done by A-LCA, particularly in terms of reporting requirements and system boundary definitions, as well as level concept. Partners are industrial and research partners

7.2 IMDS PCF Enhancement - A-LCA-17-02

Presented by: IMDS Steering Committee

Summary: The International Material Data System (IMDS) team discussed ongoing efforts to enhance their system for capturing Product Carbon Footprint (PCF) data. The enhancements will help integrate IMDS data with LCA frameworks, ensuring more accurate tracking of carbon emissions across the automotive supply chain. The PCF database will go live 2025.

7.3 Low and High Mileage EV Study

Presented by: Environment Canada

Summary: Environment Canada shared early findings from a study analyzing the LCA impacts of electric vehicles (EVs) with different mileage profiles. The study highlights the potential for emissions reductions in high-mileage EVs and underscores the importance of considering vehicle usage patterns when conducting LCAs.

8. Closing

- a. Chair closed the session by thanking participants for their valuable contributions. He reminded the group that the next session would begin at 9:30 AM the following day at the Centre Albert Borschette (CCAB).
- b. Key tasks were reiterated for the following day, with an emphasis on continuing the drafting process and reviewing subgroup contributions.

Day 2

9. Welcome and Introduction

Chair welcomed participants to the session and appreciated the European Commission for hosting the venue.

10. Adoption of Agenda

The agenda for Day 2 was confirmed. No objections or amendments were raised.

11. Recap of Day 1 Discussions

Key points discussed:

Emissions from infrastructure were debated, focusing on whether emissions from construction, operation, and end-of-life stages should be included. It was agreed to include emissions from infrastructure operation, but emissions from construction were still open for discussion, especially potentially need of a cut-off percentage.

Secondary Database Criteria: The inclusion of emissions from secondary databases was reviewed, and SG-1 will further elaborate on criteria.

Drafting Standardization: There was agreement on ensuring consistency in drafting, examples will be provided.

12. Status of SGs

SG4: Updates on progress were provided, including ongoing work on topics such as functional units, energy consumption during use, and end-of-life vehicle scenarios.

It was highlighted that global variability in vehicle service life remains a key challenge, and SG4 is working to harmonize these parameters. US EPA has self-certification for emissions of vehicles and not type-approval structure as other Contracting Parties has. OICA & SG7 leader the terminology needs to be aligned with UNRs & GTRs or R.E.3. or R.E.3. UNECE secretariat reminds IWG that a fall-back options needs to provide to those CPs not having regulations affecting emission certification of vehicles.

SG5: The group reported on discussions around recycling and second-life parts. A consensus was reached on recycling methods, and the second life of parts was clarified

SG6: EU COM: different approach for ILUC being considered. REDIII approach is risk-based while Corsia reassess the approach. Quantification stays challenging with ILUC and fuel production. UNECE secretariat: UNECE ITC aligned approach with IMO and Corsia. Continued efforts on energy modelling and infrastructure emissions were mentioned, with a draft proposal in development for infrastructure emissions, expected to be ready by the next IWG session.

13. Drafting Coordination

Levelling Concept: SG-3 presented updates on their progress regarding the levelling concept, a key element for ensuring a consistent LCA framework across all vehicle categories.

There was feedback from other subgroups on how to apply this concept effectively. SG-7 suggested that more work needs to be done to tailor the levelling approach to each specific subgroup

SG-3 agreed to take these inputs and refine the levelling concept, especially focusing on its application to different vehicle segments

Standardization of Terms: SG-7 stressed the importance of standardizing terminology across the drafts. Different subgroups are using varied terms for the same concepts, such as "type approval" vs. "certification" for regulatory testing in different regions. The aim is to ensure that documents are region-neutral and applicable globally

Other items discussed were the definition of negative emissions and sensitivity analysis to be defined in the methodology.

14. Overview of LCA Harmonization

OICA presented A-LCA-17-06. Which in an annual review of ongoing vehicle LCA harmonization activities across different regions and sectors. The need for clearer alignment between global regulatory frameworks is needed.

15. Interactive Session Between SGs

This session SGs met to discuss relevant scope and boundary issues between the SGs

16. Summary of Interactive Session

Main takeaways:

Agreement between SG-3 and SG-5 on aligning logistics methodologies and exclusion of second life from methodology in the first steps. Secondary data providers to be requested to include CFF parameters

A collaborative effort between SG-2 and SG-5 to ensure material parameters are properly reflected in secondary databases(17th A-LCA IWG session ...).

17. Any Other Business

The GRPE hybrid workshop planned for October 2024, focusing on the recyclability of vehicles, was discussed. SG-5 will present its finding. US EPA will present in future IWG the GWP100 of hydrogen with a request to include within the A-LCA work prior to IPCC interim value to be determined.

18. Next Steps

A-LCA IWG next meeting is 18th of October 2024 from UN Geneva in hybrid form. First IWG meeting in 2025 is considered to be in February in Japan. Meeting date and location still needs to be confirmed. Participants were reminded of the deadlines for submission of documents. March 2025 informal document needs to be ready for next GRPE. A late May-early June session for IWG needed to submit in July 2025 working document for October working GRPE.

19. Closing

The session concluded with thanks from the chair for participants' contributions and collaboration.