LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

A-LCA IWG proposed Structure: Four Sub-groups / Taskforces

Group 1: Scope and Boundaries

Group 2 : Vehicle

- **Production**
- **Use Phase**
- **End of Life**

Group 3: Fuel/Energy

Group 4: Data Model & Verification

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Group 1

- Scope of greenhouse gas species
- Scope of vehicles
- Result objective
- Approach Top-down/Bottom-up
- System boundaries
- Functional / declared unit
- Cut-off criteria
- Allocation Schemes

Group 4
Data Model & Verification

- Documentation
- Data Format
- Data Definition/Qualification (primary, secondary, hierarchy)
- Data Quality Rating
- Data Validity/Sharing
- Verification Procedures

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Group 2
Vehicle

Possibly three taskforces:

- **Production**
  - Materials
  - Component Production
  - Vehicle Assembly
  - Transport
- **Use phase**
  - Representative Use
  - Lifetime, Mileage
  - Real Driving vs. Test Cycles
  - Non-Propulsion Energy Use
- **End of Life**
  - Dismantling
  - Recycling
  - Remanufacturing
  - Transport

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Group 3
Fuel/Energy

Scope: all life cycle phases

- **Certification schemes**
- **Fossil Fuel (Liquid & Gaseous)** Data Provision
  - Fuel production
  - Fuel refining
  - Fuel distribution
- **Electricity** Data Provision
  - Generation
  - Storage/Distribution
- **Renewable Fuel** Data Provision (H2, eFuels, NH3..)
  - Fuel production
  - Fuel refining
  - Fuel distribution
- **Future Energy CO2-Intensity**

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Proposed Sub-Groups and/or Task Forces	*Who is the leader?*	Main participant (CPs & NGOs)	Outputs	Until when	Profits	Concerns
Sub-Group 1: Scope and Boundaries		**CLEPA as contributor**	**Gurantee homogenous approach for all sub-groups Gurantee consistency with the ToR**	**Must be the first activity to be finalised asap (june2023)**	**Sub-group would progress quicker than whole IWG**	**Is group 1 equal to the IWG? Need for this subgroup?**
Sub-Group 2: Vehicle		**CLEPA as contributor**	**Methodology to determine Vehicle specific GHG emissions over whole live cycle**	**Groups 2 with taskforces and Group 3 can be organised in // of each others. Duration is overall timing available for the IWG prior working document**	**Coordinates taskforces around the vehicle**	
Taskforce 2a: Production	**CLEPA**		**Product specific carbon footprint rule, product production cradle to gate**		Groups stakeholders in production supply chain: material supply, automotive suppliers, OEM	
Taskforce 2b: Use Phase		**CLEPA as contributor**	**Methodology to determine Vehicle specific GHG emissions in use phase (all energies, use input from sub-group 3: WtT and carbon footprint for electricity)**		Groups stakeholders in usage phase: OEM, end-users, energy infrastructure and distribution, public authorities	
Taskforce 2c: End of Life		**CLEPA as contributor**	**Methodology to determine Vehicle specific GHG emissions for End of Life (recycling, refurbishment, re-use and disposal)**		Groups stakeholders EoL and recycling	
Sub-Group 3: Fuel/Energy			**Methodology to provide GHG emissions for fuels (Well-to-tank), including fossile and renewable liquid and gaseous fuels Methodology to provide GHG emission for electricity (production, storage, distribution up to vehicle plug) Methodology to forecast future GHG intensity for electricity and fuels**		**Groups stakeholders in energy supply chain: oil industry, electricity providers, alternative energy providers, infrastructure and distribution, public authoriteis Cooperation with GEEE to be considered**	
Sub-Group 4: Data Model & Verification		**CLEPA as contributor**	**Set of rules to guarantee Data Quality, Collection, and assessment as well as transparency of the collected data including a verification/auditing mechanism**	**Higly transversal group should start in parallel with group 1**	**Groups stakeholders like OEM and suppliers, infrastructure, public authoriteis and verifing/auditing organisations**	

Timing and overall consistency with ToR and between Sub-groups is guaranteed by the A-LCA IWG leadership