

Progress Status in SG3

5th September 2023

Leveling concept

Share a Life Cycle Assessment (LCA) analysis as good examples of the different levels we are discussing

* Cases performed in various regions

| SUPPLY CHAIN & PRODUCTION | Possible Comparison ¹⁾ | Vehicle modelling | Representativeness ²⁾ | Supply chain modelling | OEM manufacturing Processes | Supplier manufacturing process | Individual decarbonisation measures |
|---------------------------|--|---|---------------------------------------|--|---|--|-------------------------------------|
| Level 1 | General concept of drivetrains (e.g. BEV vs. ICEV) | Generic material composition & average vehicle curb weight | Global average / regional | generic footprint per kg of vehicle curb weight | | | none |
| Level 2 | General concept of drivetrains (e.g. BEV vs. ICEV) based on exemplary „real“ car vehicle model | BOM & Material information system (CMDS / IMDS ³⁾) | Global average / regional | global secondary data material footprints (incl. generic information for production processes) | | | none |
| Level 3 | A representative vehicle of OEM A VS A representative vehicle of OEM B | BOM & Material information system (CMDS / IMDS) & „part-by-part“ for hotspots | Regional & individual SC for hotspots | primary information for the vehicle hotspot parts | Optional: primary data for OEM's inhouse hotspot processes | primary information for the manufacturing of vehicle hotspot parts | included |
| | | | | secondary information for the rest | Secondary information for the rest or average values per vehicle from OEM's Scope 1 & 2 emissions | secondary information for the rest | |
| Level 4 | e.g. OEM A's BEV model vs. OEM B's BEV model | BOM („part-by-part“) | individual SC | regional or primary data based part (& material) footprints | included | included | included |

1) a column describing comparable objects to help you understand the concepts at each level, giving hints about how to access them by level and what data to find

2) data information characteristics that can be used for evaluation

3) (CDMS) Chinese Material Data System, (IMDS) International Material Data System

Overarching aspects

Interconnection among other SGs

- Need to accurately define the point of responsibility for each subgroup so that there are no gaps in the different stages
- Need to define the boundaries of supply chain between SG2 and SG4
- * SG2: SG3 suggestion for handover point from SG3 to SG2 is outbound gate for the product of the first shaping manufacturing process for a homogeneous material, e.g. steel bar, aluminum ingot, plastic granulate
- * Still waiting for SG2's reply to our meeting suggestion
- * SG4: SG3 suggestion for handover point from SG3 to SG4 is the OEM-showroom

Overarching aspects

Interconnection among other SGs

- Need to discuss the materiality limit
- Need to discuss the end of life allocation / allocation in case if recycling
- Hold separate bilateral meeting between the two subgroups (SG2, SG4) and share the results with the entire informal working group to have a discussion between all subgroups
- Need to align on the calculation of transport emissions.

Other issues

1. Defining a representative vehicle

- Need to defining criteria to ensure a representativeness of vehicles for Level 3

2. Dealing with hot spot components

- Example, battery:
 - * (Level 1) average battery configuration (no detailed information)
 - * (Level 2) vehicle-specific amount of material in batteries (generic data)
 - * (Level 3, 4) analyze detailed information about the battery itself, including materials, production and sub-parts (primary data)
- Hot spot components to be included in analysis at all levels, but higher level of detail applied compared to other components.

Other issues

3. Others

- Prepare various **hotspot information** for different types of vehicles by OICA
- Our approach must be **flexible** to accommodate multiple scenarios and objectives
- Need to **define priorities** of the discussion and **ensure access** between all groups
- Need consideration of **regular reporting** in the future (ex, provide data on battery using in EU)