<reference> Observations on RV by Japan

1. RV selection: at least three (3) CPs have concern on "the highest sales volume"

- profits : (a) no need to define new selection procedure (← proposed procedure may mislead "cheating") and can be followed by the existing procedures (i.e. V\_H)
  - (b) during previous discussion, OICA made a statement saying that the vehicle selection has not so much impact on the results

2. Upstream & EoL LCA Group Definition:

<potential solution> (reserved) until A-LCA IWG group reaches agreement based on appropriate technical explanation

# Key concept of the Grouping: Interpolate per Weight

(to do so)

(a) exclude the non-weight dependent parts: **NO OBJECTION** 

Current text exclude "traction battery" and "hydrogen tank"

Any other parts to be excluded? ICE? Fuel cell? Rare earth materials? Production process?

"hydrogen tank": disappeared without any notes

(b) please prefer next slide

#### Important Considerations:

(a) If the LCA group includes vehicles with a traction battery, the battery shall be excluded from the calculation of the carbon emissions for upstream & EoL of the individual vehicle as well from the emission factors. This is due to the fact that the capacity of a traction battery and its weight do not have a proportional relationship, which would distort the correlation via vehicle mass. A similar approach should also be adopted for vehicles which have a high-pressure hydrogen storage vessel, for similar reasons. (b) Group definition based on that each group should have unique slope
: proposed grouping doesn't justify to have unique slope per group

### so many unclear terminology and inconsistency

grouping per proportional weight of each material?

| A | В | C | D | E | F |
|---|---|---|---|---|---|
| A | В | C | Γ | ) | E |

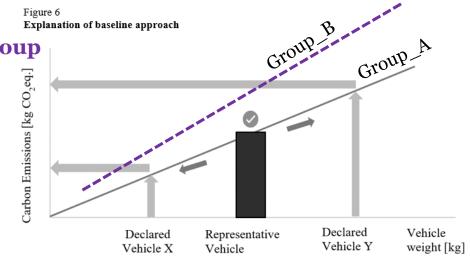
It's quite clear that the slope will be unique since the intensity of each material might be unique

### hard to understand the intention <

If a traction battery is excluded, ICE/OVC-HEV/NOVC-HEV should be same group

**Collapse the concept** (grouping has almost no chance)

What is a current methodology for multiple production locations?

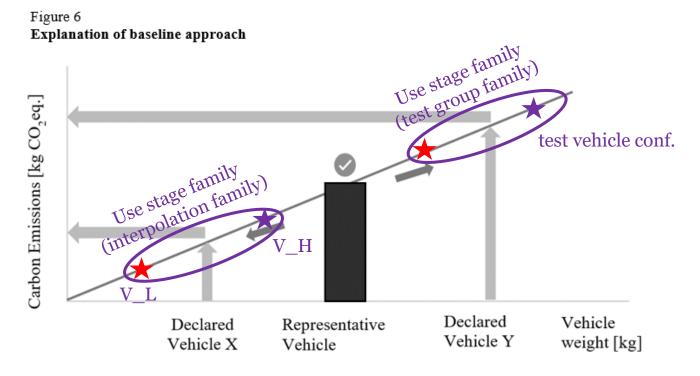


Based on these factors, vehicles can be grouped into clusters (Upstream LCA group):

- (a) Vehicle Structure Family: Means a cluster of vehicles of an automobile manufacturer's vehicle fleet in which the vehicle has a degree of commonality in technological development level and body construction characteristics, such as in body or chassis design (if applicable), including external dimension span and floor clearance span. Characteristics like vehicle type, model name, brand, marketing division, or roof line, number of doors, seats, windows or level of decor are not relevant for a classification as vehicle structure family.
- (b) Powertrain (drive System) type: to reflect the impact of the energy storage system/traction system e.g. ICE, OVC-HEV, NOVC-HEV, PEV and FCEV.
- c) Region of [final vehicle assembly]: the region is a single market, e.g. Europe, Japan, Korea, US... [For vehicle final assembly in more than one region, the definition of region may be expanded to include additional regional production.]
- d) Additional parameters will be declared by the OEMs (with justifications) if required to specify the definition of the LCA group.

### 3. DV selection: can be used for "cheating"

# <potential solution> allow only specific configuration (★) for DV selection



Since no clear CFP scheme exists like CO2 regulation, best case configuration (\*\*) will be used to represent for use stage family.

4. others: upstream emissions (not only in this section but also in others)

Definition of "upstream emissions" is clearly different from that using in this section. <potential solution > delete "upstream emissions" from definition section