



European Association of Automotive Suppliers

UNECE IWG A-LCA CLEPA Input

19th Oct 2023

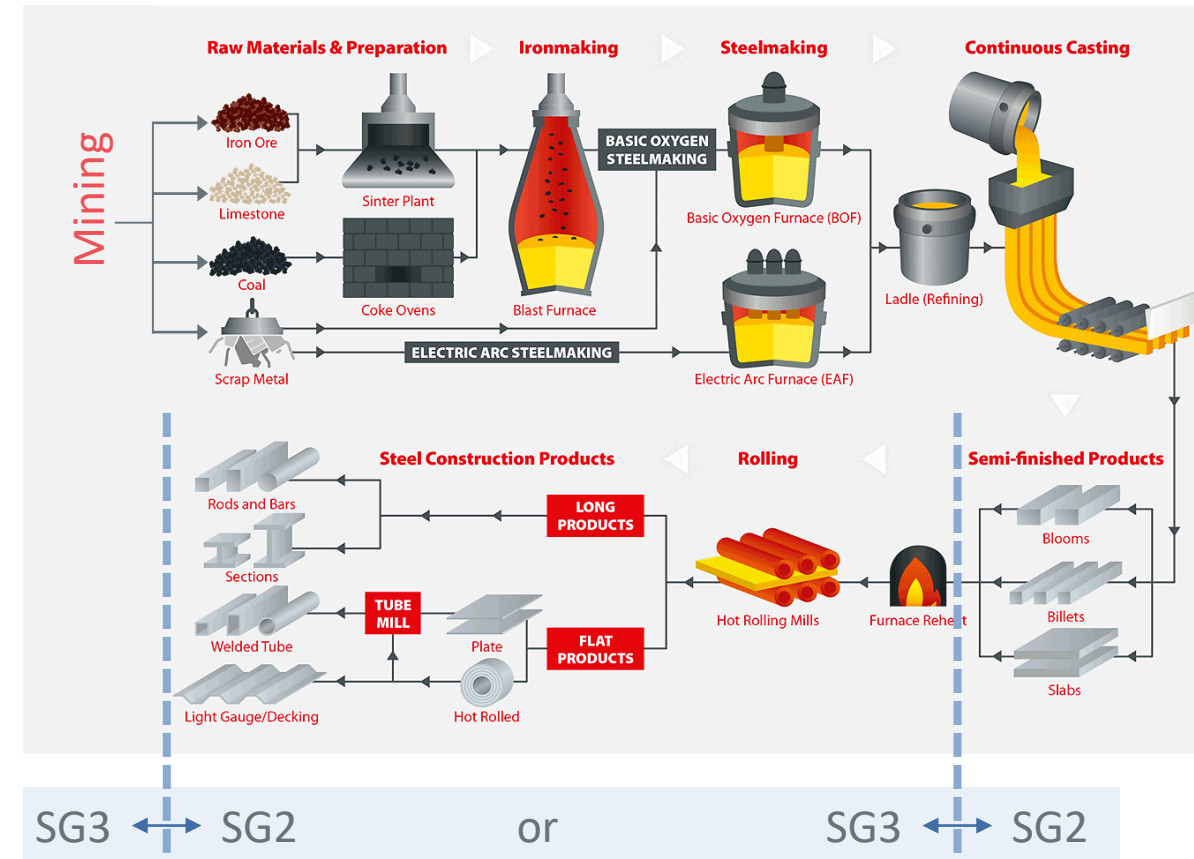
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SG2 – SG3 ALIGNMENT



Handover from SG2

- **SG3:**
 - ✓ SG2 will identify a small number of materials (focus materials) of particular importance to vehicle PCF
 - ✓ For focus materials SG2 will eventually define specific hand-over point to SG3
 - ✓ In general - for non-focus materials - a generic definition of the handover point to SG3 will be used:
 Outbound gate for the product of the first shaping manufacturing process for a homogeneous material, e.g. steel bar, aluminum ingot, plastic granulate.
 Outbound gate in that definition implies that a material is traded in the respective shape.
- **SG5:** touch point recycled material
 -> SG2 to align w/ SG5 first; check if definition is suitable for SG3 as well
- **SG6:** Energy at the inbound gate of production side.
 Electricity: Residual consumption mix -> identical for SG2



Focus Material

Non-Focus Material

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SG2 – SG3 ALIGNMENT



	SG2 & SG3	SG6	SG2	SG3	SG3	SG4	SG5			
LCA Level	Clipping, material losses & scrap rates	Energy provision	Logistics	Material production process	Parts manufacturing process	Vehicle manufacturing process	Use phase	EoL	Representativeness	
Level 1	No clipping, material losses or scrap neglected Implicit accounting for clipping, material losses or scrap only	<i>to be filled</i>	<i>to be filled</i>	Generic footprint per kg of vehicle curb weight No differentiation by material, parts or production processes			<i>to be filled</i>	<i>to be filled</i>	Global average /regional average	
Level 2	Generic clipping, material losses & scrap rates accounted for (e.g. via markup)			Specific vehicle information from BOM & IMDS/CMDS (e.g. vehicle curb weight) Generic representation of production or manufacturing processes					Global average /regional average	
Level 3	Specific/individual clipping, material losses and scrap rates			Supplier individual primary data on production of hotspot materials*	Supplier individual primary data on production of hotspot parts*	OEM specific primary data for inhouse hotspot processes & hotspot parts*			Regional & individual supply chain for hotspots	
	Generic clipping, material losses & scrap rates			Secondary information for materials of remaining parts	Secondary information for remaining parts	Secondary information for remaining parts & processes				
Level 4	Specific/individual clipping, material losses and scrap rates			Supplier individual primary data on production materials*	Supplier individual primary data on production of parts*	Supplier & OEM-individual primary data*		Individual supply chain		

*alternatively secondary data to fill gaps in primary data

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System boundaries in parts & vehicle production: Reporting -> Cradle to outbound gate

Include

- Production & production planning
- IT for production control
- Quality management
- On site transport & logistics
- Waste treatment
- Maintenance of production machines
- Heat production / distribution
- Cooling (air & water or coolant) / distribution
- Pressurized air production and distribution
- Auxiliaries provision & disposal
- Lighting of production area
- Onsite generation of electricity

Packaging included

Hand over to next Tier: Outbound Gate

Exclude

- Administration e.g. HR
- Employee commuting
- Product development/research
- Building service management system
- Sanitary facilities
- Break areas
- Canteen
- Production site facility management e.g. fire safety, plant security
- General IT

Production/Transport infrastructure

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Materiality Limit: **Hwansoo**

- 1% of final PCF
- Upstream inputs considered correct and complete

Declared Unit: **Dietmar**

- 1kg of material/1unit of product/

Waste Treatment:

- Included, no credits for energy recovery

Recycling: **CLEPA**

- Cut off

GHGases: **Emmanuelle & Bin**

- carbon dioxide (CO₂),
- methane (CH₄),
- nitrous oxide (N₂O),
- hydrofluorocarbons (HFCs),
- perfluorinated compounds, sulfur hexafluoride (SF₆),
- nitrogen trifluoride (NF₃), perfluorocarbons (PFCs),
- fluorinated ethers (HFES),
- perfluoropolyethers (e.g., PFPEs),
- chlorofluorocarbon (CFCs) and
- hydrochlorofluorocarbon (HCFCs).

GWP100y - **Agreed**

including carbon feedback and chemical effects
source AR6)

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Allocation hierarchy:

- See CX or TfS -> #6 - Ansgar

Time period: Agreed

- 1 year or corrected to 1 year to eliminate seasonal effects

Geography:

- Plant level or averaged over country/region; clearly flagged

Chain of custody & offsets: Tina

- No offsets allowed,
- Mass balancing allowed within certification scheme,
- Book and claim allowed within product system and certification scheme

Primary data share & data quality rating: Pierre

- See CX or TfS -> #7-9

Secondary data:

- Concise list of materials disaggregated by origin and production process
- Rule to fill the gaps: ?
- Complex products: ?

Transparency vs Verification:

- 1up/1down & verification

Transport emission: Dietmar

- See CX & GLEC & ISO 14083 & VDA-ECG

Product Category rules:

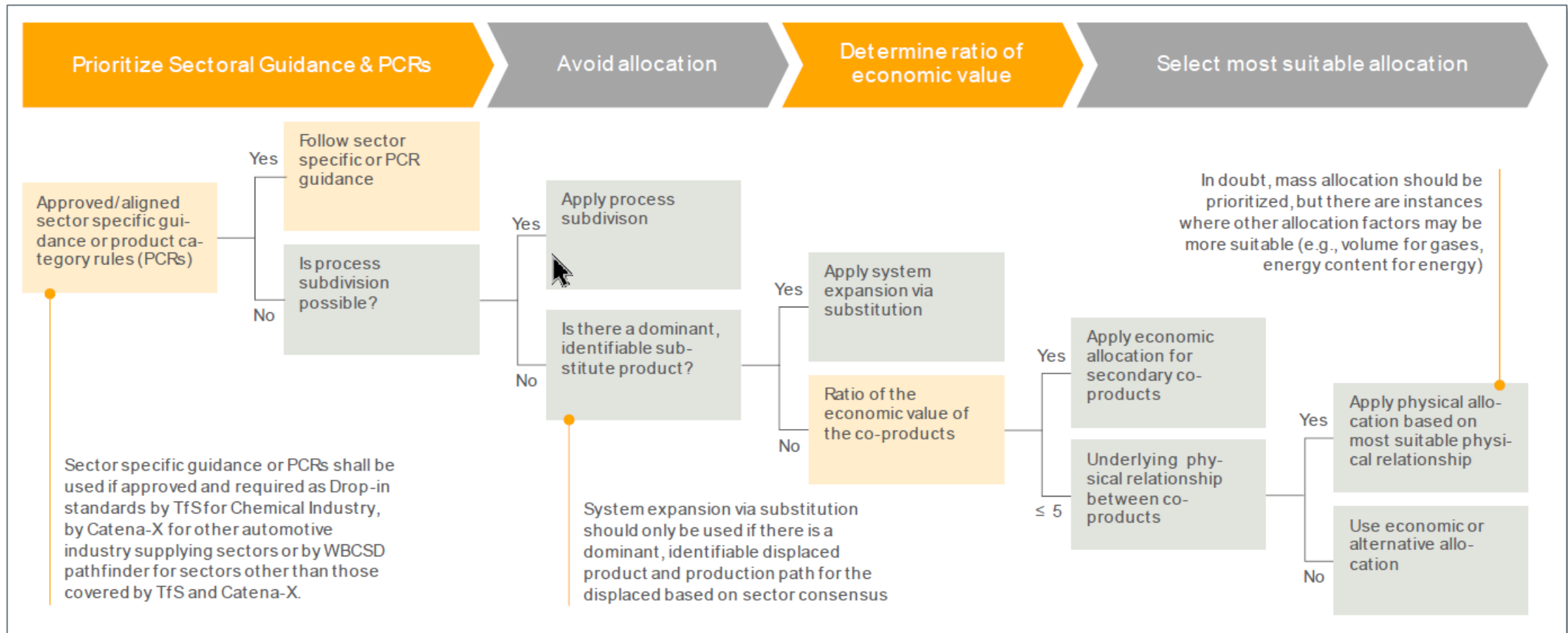
How to be included?

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Allocation hierarchy CX & TfS & A-PACT:



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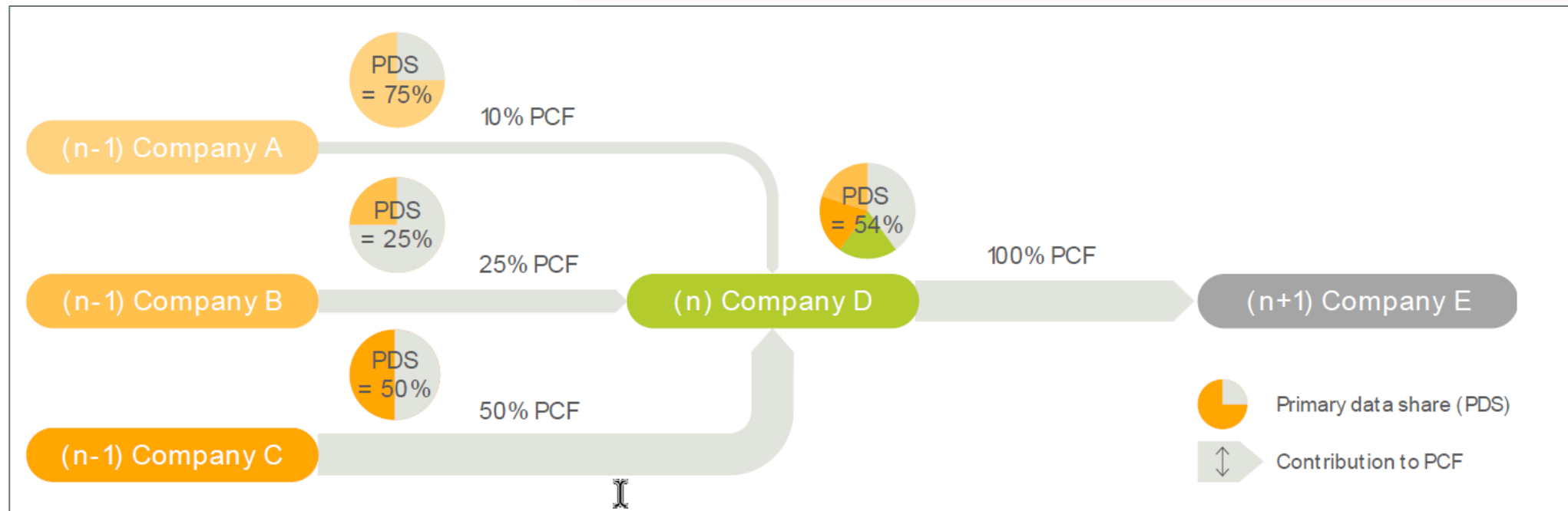
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PDS CX & Tfs:

$$PDS_{PCF} = \frac{\text{Part of PCF based on primary data [kg CO}_2 \text{ e]}}{\text{Total PCF [kg CO}_2 \text{ e]}}$$

$$PDS = \frac{\sum(|PCF_i| \cdot PDS)}{\sum|PCF_i|}$$



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DQR CX & Tfs:

$$DQR_{primary} = \frac{\sum(DQR_{primary,i} \cdot |PCF_i \cdot PDS|)}{\sum|PCF_i \cdot PDS|}$$

$$DQR_{secondary} = \frac{\sum(DQR_{secondary,i} \cdot |PCF_i \cdot (1 - PDS)|)}{\sum|PCF_i \cdot (1 - PDS)|}$$

Data quality rating	1 – Excellent	2 – Very good	3 – Good	4 – 5
Technology (TeR)	Data measured from the production technology under study	Data is measured from similar production of the company under study	Data is approximated from similar production of the company under study	Not applicable
Time (TiR)	The data of the most recent annual administration period.	The data refers to a maximum of 3 annual administration periods.	The data refers to a maximum of 5 annual administration periods.	Not applicable
Geography (GeR)	Production site specific	Same country or region	Same continent	Not applicable
Completeness (C)	All processes run by the company within the reporting period	<50% of processes run by the company within the reporting period or >50% processes run by the company for a shorter period	Less than 50% processes run by the company for a shorter or unknown period	Not applicable
Reliability (R)	Measurements specific to the product and the production process	Measurements specific to a production site and allocation to product	Data partly on assumptions or non-qualified estimate	Not applicable

Data quality rating	1 – Excellent	2 – Very good	3 – Good	4 – Fair	5 – Poor
Technology (TeR)	Same production technology	Market mix including the production technology under study	Market mix excluding the production technology under study	Similar production technologies to those included in the scope of the PCF	Production technologies are different
Time (TiR)	The publication date of the PCF is within the validity of the dataset	The CX-PCF publication date is no later than 2 years after the time validity of the dataset	The CX-PCF publication date is no later than 4 years after the time validity of the dataset	The CX-PCF publication date is no later than 6 years after the time validity of the dataset	The CX-PCF publication date is more than 6 years after the time validity of the dataset
Geography (GeR)	The technology used in the CX-PCF is exactly the same as the one in scope of the dataset	Same country or region	Same continent	Regions are different, but based on expert judgement estimations that are sufficiently similar	Regions are different or unknown

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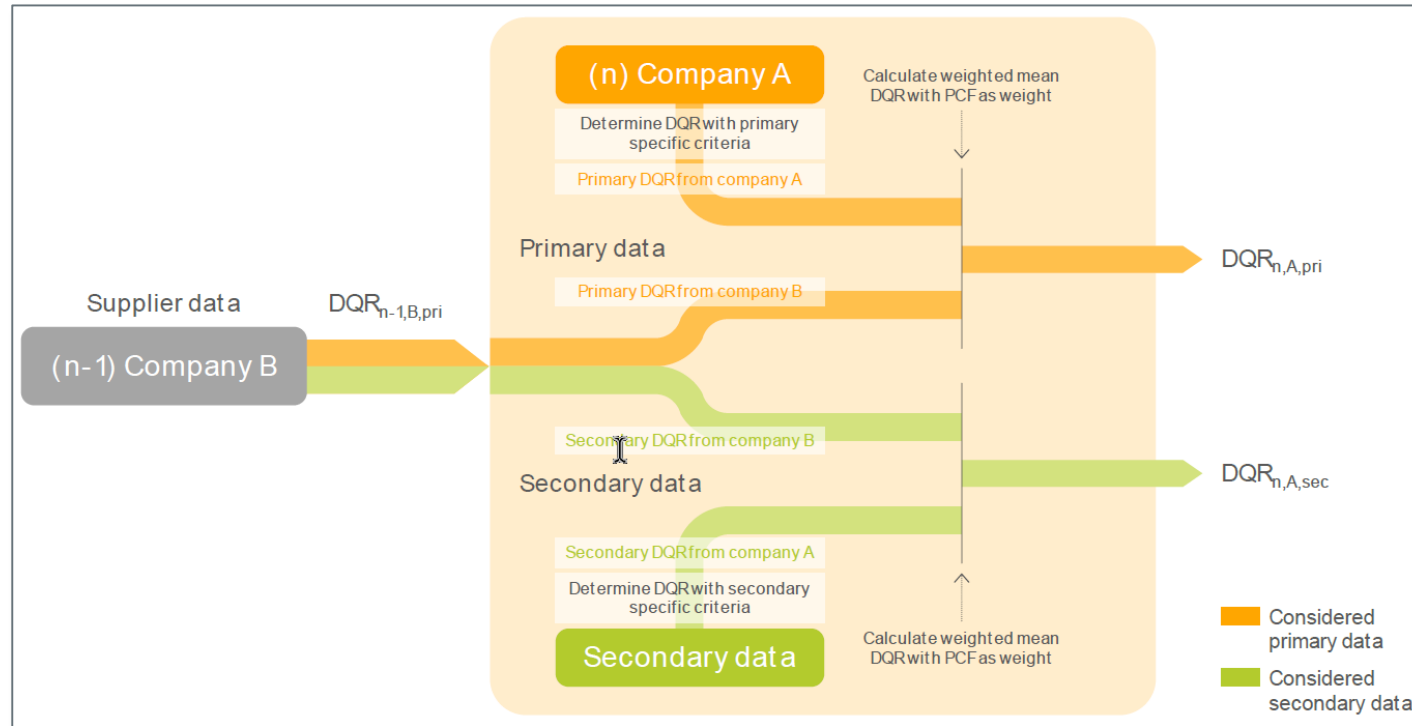
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Representative vehicle:

Similar with respect to

- Vehicle type,
- Vehicle class,
- Vehicle mass,
- Vehicle power,
- Vehicle range,
- Vehicle equipment rate,
- Vehicle production/sales volume,

all or all but one if that is the focus of comparison