

IWG A-LCA SG4 Use Phase

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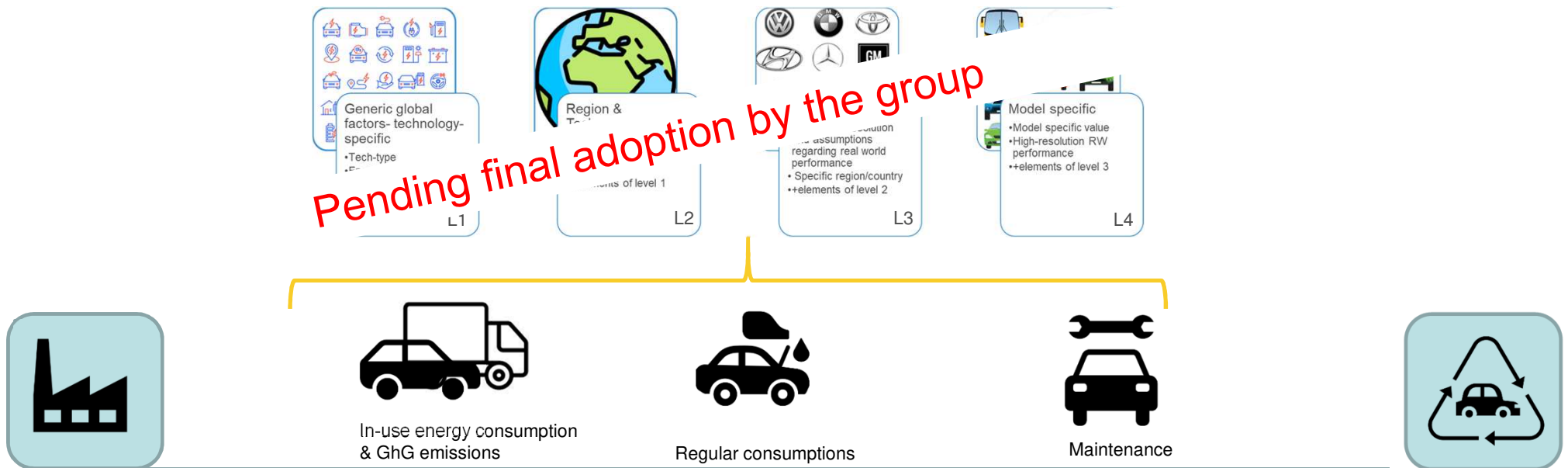


Discussion items for SG4

- ❑ Scope definition
- ❑ Boundaries definition
- ❑ Level Concepts for SG4
 - ❑ Discussion on elements to be considered (eg charging/refueling/driving/maintenance/other)
 - ❑ Possible datasets – Primary Data concept
 - ❑ Boundaries include the system but also the vehicle types
- ❑ SG4 Meeting Schedule plan

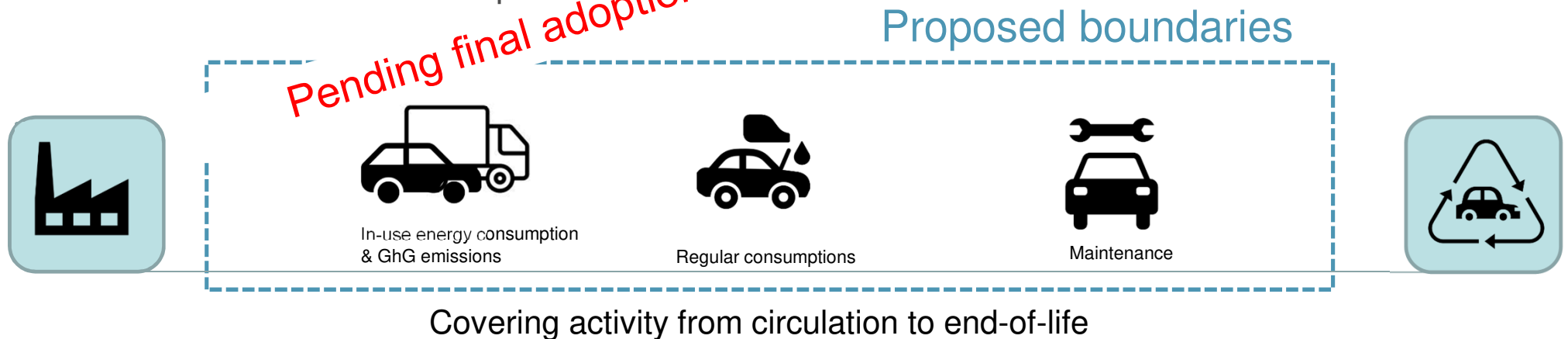
SG4 Scope

- Provide a comprehensive methodology for calculating realistic GhG emissions and energy consumption over vehicle use-phase at various levels of detail and considering the availability of different information and datasets



SG4 Boundaries

- Agree on vehicle types type/powertrains to be included
- Define service life (OEM or Default)
- Agree on databases – acceptable data sources
- Define maintenance frequency



Draft CO₂eq Calculation (JRC)**

Lifetime GhG [CO₂eq] = GhG [CO₂eq] * total average distance [km] + Maintenance * occurrences + waste (total)



GhG [CO₂eq.] (g/km) = Energy consumption (MWh/km) * GHG6 + Fuel Energy Consumption (g/km) * Factor SG6 + fugitive emissions + other factors (from the guidebook)

Work in progress



Energy consumption (MWh/km) OR Fuel energy consumption = TA Value (or equivalent) * RW correction factor [lvl1, lvl2, lvl3, lvl4] * degradation factor [lvl1, lvl2, lvl3, lvl4] * other factors (?)

** Important to define levelling concept [lvl1, lvl2, lvl3, lvl4] and the data sources

Level Concept for SG4

USE PHASE	Reference Vehicle	Representativeness	Energy consumption		Maintenance	Service Life
			In-use	Charging		
Level 1	General concept per powertrain tech/energy carrier	Global average	Average homologation value normalized to WLTP corrected for RW (global)	Generic charging efficiency (?)	Generic	Generic/Global
Level 2	Same as Lv 1	Regional (EU/US/CPK)	Regional RW	Regional charging efficiency	Generic/regional	Regional / Unique service life
Level 3	Representative vehicle for each OEM/powertrain/energy carrier (need to define criteria)	OEM/Nation	OEM-resolution and assumptions for RW performance	OEM average efficiency (standardised?)	OEM Specific	Regional with option to declared higher life
Level 4	Specific OEM's vehicle model	OEM's specific vehicle model	High-resolution RW value (based on OBFOM or similar data)	Vehicle specific charging efficiency (standardised?)	Model specific	OEM/Model specific average data

WORK IN PROGRESS

SG4 Meeting Schedule Plan

June	July	August	September	October	November
26 th – SG4 1 st meeting	-		-	10 th – SG4 4 th meeting	7 th – SG4 4 th meeting
	10 th – A LCA 9 th IWG	<u>Summer Break</u>	7 th – A LCA 10 th IWG	17/18 th – A LCA 11 th IWG @BRU	
	11 th – SG4 2 nd meeting		21 st – SG4 3 rd meeting	-	