

Harmonisation of vehicle LCA methodology for decarbonisation

UNECE GRPE IWG LCA

Okinawa

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IOCA position

- International guidelines should be formulated to pursue a globally harmonised, fair, practical and transparent LCA methodology.
- Many IOCA members however believe that it is premature to cast LCA into legislation.
- IOCA therefore requests that this reservation is recorded in any Terms of Reference and no commitment is made at this time for transposition into legislation.
- The example of IWG VIAQ can be taken as a successful development of mutual guidelines without the need for immediate legislation.



Complexity & comparability challenge



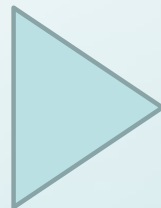
Complex product



Complex supply chains

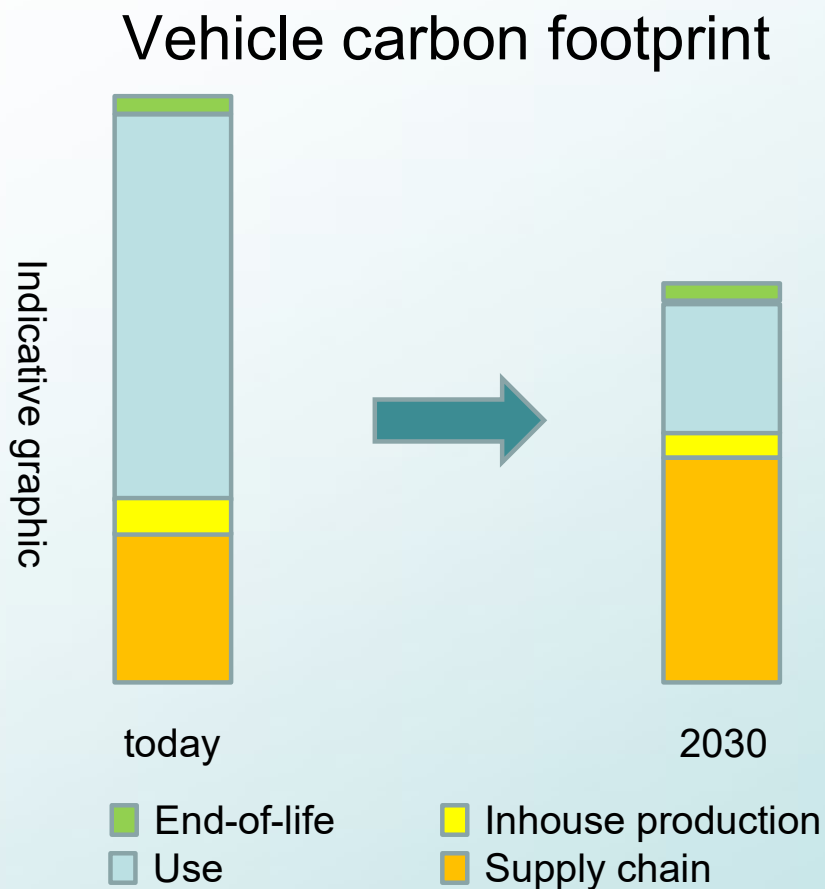


Flexible methodology



- Documentation of methodological choices and chosen datasets is essential for **transparency**
- **Comparability** of vehicle LCAs remains unsolved with current method, tools & data

@ Decarbonisation as overarching purpose



- LCA as a tool to enable decarbonisation of automotive life cycle
- Transformation of automotive industry leads to new carbon emission hotspot: supply chain
- Cooperation of OEMs and suppliers essential to further decarbonise
- Harmonised vehicle LCA methodology enables joint decarbonisation



Overview of current activities I/II

in the context of vehicle (component) LCA harmonisation

Activities	Scope				Status
	Vehicle type	Techn. level	Region	Impact cat.	
* EU battery regulation Art.7	all	battery	EU	GWP	delegated act to be published
PEFCR battery	all	battery		17 (incl. GWP)	published & under revision
Global Battery Alliance (GBA) GHG rulebook	all	battery		GWP	published
CatenaX rulebook	all	components	Germany / EU	GWP	under development
WBCSD A-PACT Guidance	LDV	components / vehicle		GWP	published & under revision
* CATARC lifecycle carbon emission accounting standard	LDV	vehicle / components	China	GWP	under development
PFA LCA guidelines	LDV	vehicle / components	France	7 (incl. GWP)	technical paper published
VDA LCA guidelines	LDV, HDV	vehicle	Germany	5 (incl. GWP)	published
JAMA	all	vehicle	Japan	GWP (pot. more)	JAMA internal & new v. upcoming
TranSensus LCA	all	vehicle	EU	n.n.	starting 2022/10

* Regulation / potential regulation

all: LDV, HDV & category L vehicles

GWP: Global Warming Potential



Overview of current activities II/II

in the context of vehicle (component) LCA harmonisation

Activities	Scope				Status
	Vehicle type	Techn. level	Region	Impact cat.	
GREET (Argonne Institute delegated by US Dept. of Energy)	LDV, HDV	vehicle	US	GWP	published
Korean Green NCAP (KATRI delegated by Korean Ministry of Transport)	tbd	vehicle	Korea	GWP	under development
Green NCAP LCA	LDV	vehicle	EU & UK	GWP	published
International EPD system:					
- EPD PCR busses	HDV (bus)	vehicle	(Sweden)	8 (incl. GWP)	published
- EPD PCR passenger cars	LDV	vehicle	(Sweden)	8 (incl. GWP)	under development
Korean Ministry of Environment EPD PCR vehicles (Korea)	LDV (up to 3,5 t)	vehicle	Korea	7 (incl. GWP)	published & under revision
UNECE IWG LCA	all / tbd	vehicle	global	tbd	starting 2022/10

* Regulation / potential regulation

all: LDV, HDV & category L vehicles

GWP: Global Warming Potential



Example from IWG VIAQ

- The original ToR (contributed by Korea) contained the following text:
 2. Objective
 - 2.2 Internationally, several different standards already exist but the exact methods of measurements and pollutant emission requirements are still not defined under the 1958 Agreement or 1998 Agreement. The objective of this proposal is to develop a recommendation (R.E.3, S.R.1 or a new Mutual Resolution) concerning the protection of passengers from VOCs emitted by interior materials used for the construction of vehicles.
 - 2.3 The recommendation (R.E.3, S.R.1 or a new Mutual Resolution) shall include provisions and harmonised test procedures for the measurement of interior VOCs taking into account existing standards.
 3. Terms of reference
 - 3.1 The following terms of reference describe the main tasks of the new IWG.
 - (e) Draft a new recommendation (R.E.3 under the 1958 Agreement, S.R.1 under the 1998 Agreement or a new Mutual Resolution under both Agreements) concerning the protection of drivers and passengers from VOCs emitted by interior materials used in the construction of vehicles, including provisions and harmonised test procedures.
- The final decision was to create a new mutual resolution (M.R.3)



Summary

- For effective decarbonisation of automotive products, cooperation along the whole value chain is essential and requires harmonised LCA “language” / methodology.
- Currently, a vast number of activities is going on potentially leading to disharmonisation and – even worse – contradiction.
- Therefore, overarching international guidelines should be formulated to pursue a globally harmonised, fair, practical and transparent LCA methodology.
- Many OICA members believe that it is premature to cast LCA into legislation and therefore OICA requests that no commitment is made at this time for transposition into legislation.
- We suggest a mutual resolution as an appropriate way forward.



BACK UP



List of abbreviations

Abbreviation	Meaning
IWG VIAQ	Informal Working Group - Vehicle Interior Air Quality
PEFCR	Product Environmental Footprint Category Rules
CATARC	China Automotive Technology and Research Center
JAMA	Japan Automobiles Manufacturers Association
PFA	Plateforme Automobile (French association of the automotive industry)
VDA	Verband der Automobilindustrie (German association of the automotive industry)
GBA	Global Battery Alliance
CBAM	Carbon Border Adjustment Mechanism
GWP	Global Warming Potential
GHG	Green House Gas
LDV	Light Duty Vehicle
HDV	Heavy Duty Vehicle
WBCSD	World Business Council For Sustainable Development