



Overview of international activities
in the context of vehicle LCA harmonisation
- 2024 Update

UNECE GRPE IWG A-LCA

Brussels

2024-09-26/27



Overview of current activities

Activities with vehicle component focus

Activities	Scope				Status	Web link
	Vehicle type	Techn. level	Region	Impact cat.		
China Power Batteries (PCR)	all	battery	China	GWP	under development by MIIT	
EU battery regulation Art.7	all	battery	EU	GWP	draft delegated acts published, stakeholder consultation closed	(EU) 2023/1542
Japan Battery (PCR)	all	battery	Japan	GWP	published 04/2023 by METI as (Draft), ver. 1.0	https://www.meti.go.jp/shingikai/mono_info_service/chikudenchi_sustainability/pdf/004_06_01.pdf
Global Battery Alliance (GBA) GHG rulebook	all	battery		GWP	published	https://www.globalbattery.org/media/publications/gba-rulebook-v2.0-master.pdf
c-PCR Batteries and parts thereof (International EPD system)	tbd	battery	global	tbd	formation of working group	PCR Library EPD International (environdec.com)
CatenaX rulebook	all	components	Germany / EU	GWP	published (v3.0), stakeholder feedback process starting, PCF verification guideline published	https://catenax-ev.github.io/docs/next/non-functional/overview
WBCSD A-PACT Guidance	LDV	components / vehicle		GWP	working on alignment with TfS, Catena-X and GBA	https://www.wbcسد.org



Overview of current activities

Regional activities with vehicle focus – non-legislative

Activities	Scope			Impact cat.	Status	Web link
	Vehicle type	Techn. level	Region			
PFA LCA guidelines	LDV	vehicle / components	France	7 (incl. GWP)	under modification until 12/2024	https://pfa-auto.fr/wp-content/uploads/2023/04/DT_Me%CC%81thodologie_2023_V15_ENGLISH.pdf
VDA LCA guidelines	LDV, HDV	vehicle	Germany	5 (incl. GWP)	published & no further development	https://webshop.vda.de/VDA/en/vda-900-100-082022
JAMA LCA guideline	all	vehicle	Japan	GWP (pot. more)	third party certification (ISO14040, 14044 and 14067)	(under study)
GREET (Argonne Institute delegated by US Dept. of Energy)	LDV, HDV	vehicle	US	GWP	published, enhancement / extension ongoing with IEA, final by 12/2024	Argonne GREET Model (anl.gov)
TranSensus LCA	all	vehicle / fleet	EU	5 (incl. GWP) “+ social LCA	main methodological issues defined; electricity modelling still under discussion; currently defining prospective and fleet level LCA	https://lca4transport.eu



Overview of current activities

Customer information oriented activities

Activities	Scope				Status	Web link
	Vehicle type	Techn. level	Region	Impact cat.		
Green NCAP LCA	LDV	vehicle	EU & UK	GWP	interactive online LCA tool available for consumers	https://www.greenncap.com/
Korean Green NCAP (KATRI delegated by Korean Ministry of Transport)	tbd	vehicle	Korea	GWP	under development, expected publication 12/2026	
C-GCAP (ITEC)	LDV	vehicle	China	tbd	under development	
EPD PCR busses (International EPD system)	HDV (bus)	vehicle	global	8 (incl. GWP)	published as PCR 2016:04 Public and private passenger buses and coaches (2.0.2)	PCR Library EPD International (environdec.com)
EPD PCR pass. cars (International EPD system)	LDV	vehicle	global	8 (incl. GWP)	published on 2024-04-26 as PCR 2024:02 Passenger cars (1.0.2)	PCR Library EPD International (environdec.com)
EPD PCR vehicles (Korean Ministry of Environment)	LDV (up to 3,5 t)	vehicle	Korea	7 (incl. GWP)	published as KR EPD PCR 016: Motor Vehicle [2024]	https://ecosq.or.kr/websquare.do#w2xPath=/ui/cer/ic/oh/ICOH110M01.xml&valVI=tab51&menuSn=20018000



Overview of current activities

Regional legislative activities with vehicle focus

Activities	Scope			Impact cat.	Status	Web link
	Vehicle type	Techn. level	Region			
Mover Program	all	vehicle	Brasil	GWP	law 14902/2024 published, methodology under development	Law 14,902/2024
China Low Carbon Action Plan (CALCP)	LDV	vehicle / components	China	GWP	methodology under review (passenger car)	https://wiki.unece.org/download/attachments/172852238/LCA-01-07r1_China_CATARC%20presentation%20LCA%20Research%20Progress%20of%20CATARC%2020221027%20update.pdf?api=v2
EU LDV CO2 regulation	LDV	vehicle	EU	tbd	revision of fleet regulation, methodology under development	EU 2019/631 & recast EU 2023/851
French Eco Bonus (French Ministry of Economy & Ministry of Energy transition)	M1 (EV)	vehicle	France	GWP	in force since 10/2023, currently under revision	https://www.economie.gouv.fr/particuliers/bonus-ecologique
Korea Vehicle GHG Regulation (CACA)	tbd	vehicle	Korea	GWP	MOE/NIER announced incl. of '(LCA based) Automotive GHG Management System' in revision of 'Clean Air Conservation Act'	Korea Act No. 19960

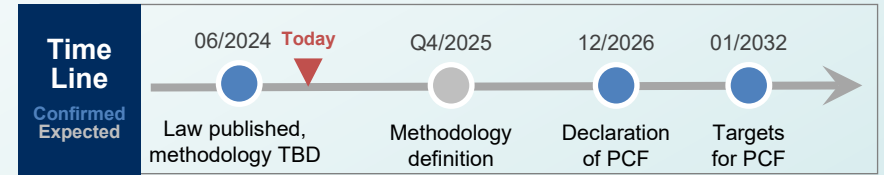


Overview of current activities

Overarching activities

Activities	Scope				Status	Web link
	Vehicle type	Techn. level	Region	Impact cat.		
EU Carbon Border Adjustment Mechanism (CBAM)	all (cross sectoral)	raw material, electricity and "simple finished goods"	EU	GWP	stepwise implementation (linked to ETS Free Allowance phaseout) as from 01/2026 (EU 2023/956)	EU carbon border adjustment mechanism: Implications for climate and competitiveness Think Tank European Parliament (europa.eu)
UK Carbon Border Adjustment Mechanism (CBAM)	tbd	tbd	UK	GWP	proposal published	https://www.gov.uk/government/consultations/consultation-on-the-introduction-of-a-uk-carbon-border-adjustment-mechanism
UNECE GRPE IWG A-LCA	all / tbd	vehicle	global	GWP	work ongoing in 7 subgroups	Automotive - Life Cycle Assessment (A-LCA) - Transport - Vehicle Regulations - UNECE Wiki

Brasil Mover Program



Introduction

- ❑ **Mover (“Mobilidade Verde”)** is a comprehensive program focused for the development of the industry in Brazil through sustainable mobility initiatives.
- ❑ For the OEMs the program demands the declaration of product carbon footprint, inventory of production plants as well as improvement of energy consumption (tank-to-wheel targets, measured in MJ/km), use of renewable fuels (Well-to-wheel targets, estimated in gCO₂e/km) and recyclability.
- ❑ No link to UNECE A-LCA



Background	
Involved actors	MDIC (Ministry of Industry Development), ANFAVEA (OEMs association), AEA (Association of Automotive Engineering)
Phase	Law w/ PCF obligation published Methodology under discussion
Region/Country	Brazil
Related to	Vehicle
Impact Categories	GWP
Website/regulation	Law 14,902/2024
Vehicle type	LCV, LPV and HDV
Responsible experts	

Details

- Summary as published by law 14902/2024:
 - Dez/2026 - Report vehicle carbon footprint and plants inventory of vehicles sold in Brazil
 - Jan/2027 - Can be used as taxation criteria and definition of future targets
 - Jan/2032 - Achievement of targets for cradle-to-grave as defined in 2027
- Methodology for the declaration of the PCF and production plants inventory under discussion. Technical groups were formed to support gov. stakeholders definition and will be defined by additional Decree/ Ordinances. Expected conclusion among Q4/2025.

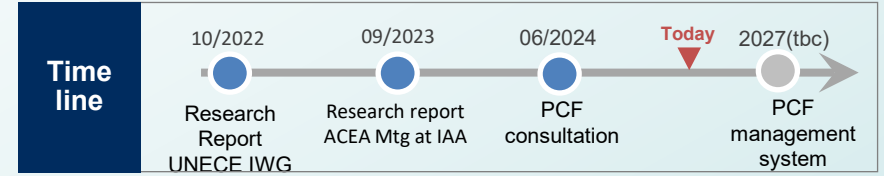
Scope	Cradle to grave
Functional unit	To be discussed by technical workgroups and gov stakeholders.
Material Classification	
LCI DB	
Mileage	
EoL modelling	
Infrastructure/Capital goods	

Outlook

- expected outcome: Declaration of PCF for tax implications and fleet legislation targets
- activity ongoing: Methodology for PCF calculation under discussion



China CATARC LCA



Introduction

- ❑ **China Low Carbon Action Plan (CALCP)– LCA vehicle methodology under review is a non- governmental research program initiated and organized by the China Automotive Carbon Digital Technology Center Co., Ltd (subcompany of CATARC).**
- ❑ **China as CP active member of UN ECE IWG SG 3 (Production) & SG 5 (EOL)**



Background

Involved actors	SAE China / CATARC Mr. Tongzhu ZHANG works in the China Automotive Standardization Research Institute (CASRI) of CATARC
Phase	Research & Drafting
Region/ Country	China
Related to parts	Vehicle & Parts
Impact Category	GWP
Website/regulation	
Vehicle type	LDV
Responsible experts	Torsten Kosmehl

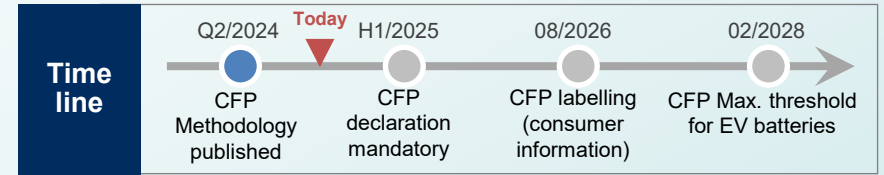
Details

<ul style="list-style-type: none"> ○ Research work ongoing and lead by Automotive Carbon Digital Technology Center Co., Ltd ○ Non-governmental secondary databases in place: <ul style="list-style-type: none"> ○ China Automotive Life Cycle Database (CALCD) - ○ China Industrial Carbon Emission Information System (CICES) ○ LCA Scope: Parts Production, Vehicle Production , Use Phase , Transport / logistic (tbc) ○ The Ministry of Industry and Information Technology of the People’s Republic of China released draft standard "Greenhouse Gases - Quantitative Methods and Requirements of Product Carbon Footprint - Passenger Cars". (Cradle to Grave) Note: CATARC statement at ACEA meeting: Currently, there are no conditions for full lifecycle management. 	
Functional Unit	The transportation service provided by a passenger car for 1 km in its life cycle
Scope	There are two boundaries: system boundary and benchmarking boundary. Latter seems more important for OEMs’ compliance, which from material recovery to vehicle use, excluding maintenance, EOL, and RRR.
Material Classification	Specified
LCI DB	The standard provides national average data as default inputs in its appendix D. It also compares the China special data with GREET and Ecoinvent 3.9 China/Global in the Supporting Information document.
Mileage	150,000km
EoL modelling	Similar to a cut-off approach, the EOL and RRR are not included in the “benchmarking boundary”
Infrastructure/Capital goods	Not included in “benchmarking boundary” and “system boundary”

Next steps /Outlook

- China regulators released a draft for comments of China passenger vehicle’s PCF. The deadline for comments collection was July 10th 2024.
- This is a recommended industry standard. The standard has been included in the government’s “Implementation Plan for Establishing a Carbon Footprint Management System” which aims to establish “a preliminary PCF management system” by 2027.

EU Battery Regulation



Introduction

- EU Battery Regulation: introducing battery sustainability requirements**
- Article 7 of the new EU Battery Regulation introduces requirements on the Carbon footprint (CFP) of EV batteries
- The A-LCA shall align as much as possible with the Battery Regulation CFP methodology developed to avoid fragmentation.



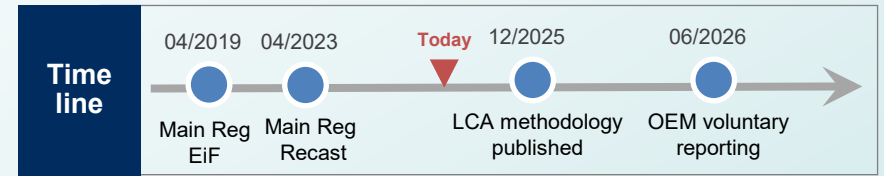
Background	
Involved actors	EU COM / JRC
Phase	Final
Region/Country	EU
Related to	Battery
Impact Categories	Climate change [kg CO2eq]
Website/regulation	(EU) 2023/1542
Vehicle type	N/A
Responsible experts	Bruno Li Pira

Details	
<p>New Batteries Regulation in the EU focuses on sustainable and circular battery practices.</p> <ul style="list-style-type: none"> ○ Aims to reduce carbon footprint, minimize harmful substances, and promote recycling. ○ Regulation targets electric vehicles, light transport, and industrial batteries for carbon footprint limits. ○ Stricter recycling and recovery targets for critical raw materials will be introduced. ○ Consumers can replace portable batteries in electronic products, promoting re-use and reducing waste. <p>Battery Regulation Article 7 (Carbon Footprint requirements):</p> <ul style="list-style-type: none"> ○ Carbon footprint declaration requirements ○ Gradual implementation dates for carbon footprint declaration based on battery type. ○ Labeling and performance class requirements for batteries, also with staggered start dates. ○ Maximum life cycle carbon footprint threshold and its application to different battery types 	
Functional Unit	The total amount of energy provided by the battery over the battery's service life expressed in kWh
Scope	Cradle to grave [Raw material, production, distribution, End-of-Life], use phase is excluded
Material Classification	Cathode- & anode active material, electrolyte salt & precursors, Copper, Aluminium, Steel
LCI DB	Life Cycle Data Network on the European Platform on LCA ('carbon footprint datastock')
Mileage	Years of operation
EoL modelling	Circular footprint formula (CFF)
Infrastructure/Capital goods	-

Outlook

- EU COM published **draft** Carbon Footprint calculation methodology in Q2 2024
- CFP declaration to become mandatory in the first half of 2025 (tbd)

EU LDV CO2 Regulation



Introduction

- Article 7a of EU 2019/631 defines the development of a methodology for full life-cycle CO₂ emissions of passenger cars and light commercial vehicles by 31-12-2025.**
- Voluntary reporting by OEMS from 01-06-2026**
- EU COM is Contracting Party to UN GRPE and involved in the development of UNECE A-LCA resolution document and will take the development into account.



Background

Involved actors	• European Commission, DG CLIMA lead, DG GROW and JRC involved
Phase	Main regulation: Entry into force 17-04-2019, voluntary LCA reporting 01-06-2024
Region/Country	EU
Related to	Vehicle
Impact Categories	CO ₂
Website/regulation	EU 2019/631 & recast EU 2023/851
Vehicle type	M1 & N1
Responsible experts	Erik Postma

Details

- DG CLIMA is in a research phase for the development of the LCA methodology
- A contract for development of the methodology has been awarded to consultants
- Expected exchange with stakeholders is in H2 of 2024
- LCA methodology will use current regulation and directives that affects the different stage of the automotive life-cycle chain;
→ EF Method, Battery Regulation, Renewable Energy Directive, ELV Directive, Critical Raw Material Regulation, LDV CO₂ standards

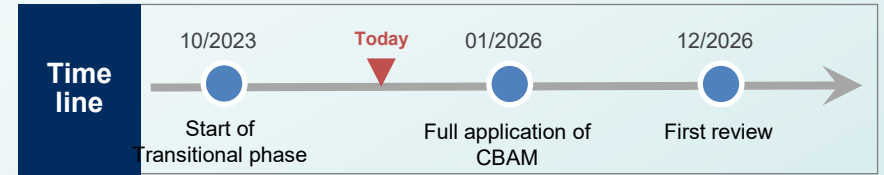
Functional Unit	Not defined
Scope	expected Cradle-to-grave
Material Classification	Not defined
LCI DB	Not defined
Mileage	Not defined , Euro 7 lifetime requirements expected
EoL modelling	Not defined, ELV regulation expected
Infrastructure/Capital goods	Not defined

Outlook

- **Development has been started**
- **Involvement of consultation and stakeholder is expected by H2 2024**



EU Carbon Border Adjustment Mechanism (CBAM)



Introduction

- ❑ EU Carbon Border Adjustment Mechanism, imposes carbon pricing on certain imports into the EU
- ❑ No direct link with UN A-LCA



Background

Involved actors	• European Union
Phase	Enforced as from Oct.2023
Region/Country	EU
Related to	Raw materials
Impact Categories	GHG
Website/regulation	Regulation (EU) 2023/956
Vehicle type	N/A
Responsible experts	Bruno Li Pira

Details

- The European Union's Carbon Border Adjustment Mechanism (CBAM) is a climate policy tool designed to address carbon leakage and promote global emissions reductions.
- Set to begin in 2026, CBAM will impose a carbon price on imports of specific goods, such as cement, steel, aluminum, fertilizers, electricity, and hydrogen.
- The goal is to ensure that imported products bear the same carbon cost as those produced within the EU under its Emissions Trading System (ETS).
- Under CBAM, importers will need to purchase CBAM certificates corresponding to the embedded carbon emissions of the goods they import.

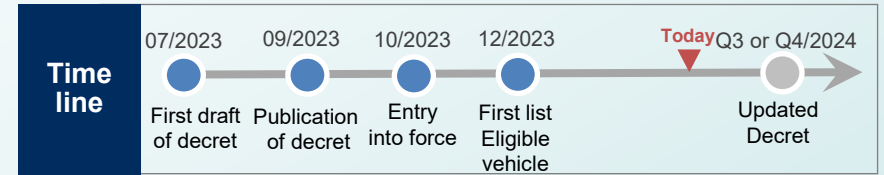
Functional Unit	Not defined
Scope	Impose carbon pricing on certain raw materials import into the EU.
Material Classification	cement, steel, aluminum, fertilizers, electricity, and hydrogen
LCI DB	Not defined
Mileage	Not defined
EoL modelling	Not defined
Infrastructure/Capital goods	Not defined

Outlook

- Transitional phase to conclude at the end of 2025.
- Full application – including penalties – from January 2026

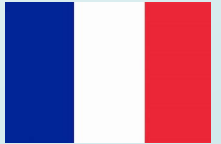


France Ecological Bonus



Introduction

- Publication of French Décret/Arrêté modifying the conditions of eligibility of Ecological Bonus for new electrical vehicles in France. Files to be documented on French platform by OEM. Publication each month of the list of eligibles car by French government since dec 2023.
- Introduction of an environmental scoring (upstream carbon footprint for a vehicle) based on a proposed formula.
- No Link to UNECE A-LCA



Background

Involved actors	French Ministry of Economy & ministry of energy transition
Phase	Entred into force on 10/10/2023
Region/ Country	France
Related to parts	EV vehicle only
Impact Category	Global Warming Potential => CO2eq
Website/regulation	https://www.economie.gouv.fr/particuliers/bonus-ecologique
Vehicle type	EV category M1 only
Responsible experts	Emmanuelle Kobialka

Details

- Vehicle concerned : M1 vehicle only** (mass running order < 2400kg), Documentations have to be made for **all Type-Variat-Version (MODM* max)**.
→ Files to be submitted to **ADEME** by the car manufacturers (first opening of the platform 10/10/2023) and response within max 2 months. Derogation afterwards only.
- Environmental score : Minimum of 60 points / 80 points max.** Score is only conditioned by a carbon footprint threshold of the vehicle. A specific calculation method is defined by the “décret”. Derogation are possible (LCA study)
- Threshold to be reached** depend on 2 types of vehicle defined:
Type 1 : 5 passengers and + / trunk 200L and + / Electric range 170km and + → < 14.25t CO2eq
Type 2 : “Other vehicles” → < 8.75t CO2eq
- Formula EC version**** : $EC_{version} = EC_{ferreux} + EC_{aluminium} + EC_{AM} + EC_{batterie} + EC_{ATI} + EC_{transport}$
→ Carbon Footprint steel + aluminium + other materials + battery + manufacturing + transport
- Tables of carbon emission factor reference values** in the annexe of the “arrêté” for each categories and given by region or country (steel/alu/other mate/battery/plant/transport)

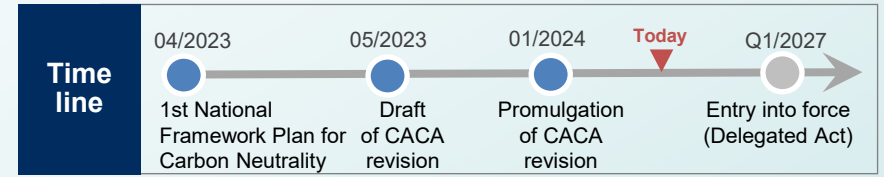
Functional Unit	Electric vehicle
Scope	Cradle to gate = upstream carbon footprint until first km (usage, maintenance, end of life out of scope)
Material Classification	Battery/steel/aluminium/plastic/glass/other
LCI DB	Emission factor done in the decret
Mileage	N/A
EoL modelling	Out of scope
Infrastructure/Capital goods	N/A

Next steps /Outlook

- The “décret & arrêté” should be updated in September 2024 with the introduction of new criteria concerning **recycled** and **bio-based materials** and the **reparability of the battery** (criteria not described at this stage yet, Draft is not available yet)



Korea Vehicle GHG Regulation (CACACA)



Introduction

- ❑ Korea CACA (Clean Air Conservation Act) Revision in Jan. 2024 : Korea MOE* revised CACA to establish legal basis for conducting Life Cycle Assessment (LCA) of Greenhouse Gas (GHG) emissions of motor vehicle rather than the existing management on GHG emission standard during motor vehicle use (driving) phase
- ❑ Korea MOE (NIER**) is the leader of SG3 of the UNECE A-LCA IWG and will incorporate the UNECE A-LCA results into the forthcoming Delegated Act of CACA on Automotive LCA Methodology



Background

Involved actors	Korea MOE* / NIER**
Phase	Promulgation date : 9. Jan. 2024 Enforcement date : 10. Jan. 2027
Region/Country	Korea
Related to parts	Vehicle
Impact Category	Climate change [kg CO2eq]
Website/regulation	Korea Act No. 19960 (CACACA revision in Jan. 2024)
Vehicle type	N/A
Responsible experts	Moosang Yu

Details

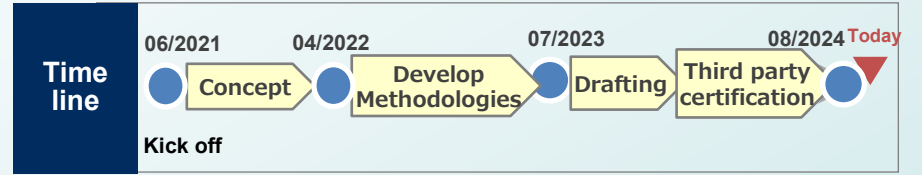
- **Background & Objectives**
 - In the 1st National Framework Plan for Carbon Neutrality and Green Growth promulgated in April 2023, the Korean government set a policy goal to gradually reform the existing GHG and fuel economy management system (CACACA), which focuses on the motor vehicle use (driving), to consider LCA including production, use and end-of-life.
 - Accordingly, the existing CACA revised in January 2024 to establish a legal basis for conducting LCA of GHG
- **Main point of revision**
 - Establishment of new definition on Life Cycle and Life Cycle Assessment of motor vehicle (Article 2. 21-2)
 - Making the Minister of MOE and the Minister of MOLIT*** prepare and notify the types of motor vehicles subject to LCA of GHG emissions and the implementation methods, etc. (Article 76-7. (1))
 - Establishing legal basis for administrative and technical support on LCA of GHG (Article 76-7. (2))

Functional Unit	not specified (The Delegated Act (Automotive LCA methodology) is expected to be promulgated after January 2027)
Scope	
Material Classification	
LCI DB	
Mileage	
EoL modelling	
Infrastructure/Capital goods	

Next steps /Outlook

- The Delegated Act (Automotive LCA methodology) is expected to be promulgated after January 2027

JAMA CFP guideline



Introduction

- JAMA have established Automotive guideline LCA in 2011 for JAMA internal use.
- Renewed JAMA CFP guideline to achieve Carbon Neutral society working together with all stakeholders



Background	
Involved actors	• JAMA, JAPIA, JABIA, JATMA, AIST,
Phase	Third party certification completed
Region/Country	Japan
Related to	Vehicle
Impact Categories	GWP
Website/regulation	N/A at the moment
Vehicle type	Passenger car, Truck, Bus, Motorcycle
Responsible experts	JAMA LCA Expert Group Chair ; Isao TABUSHI

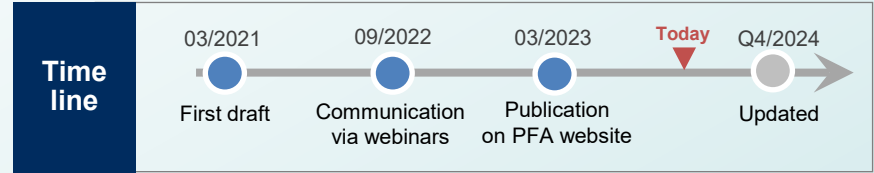
Details	
<p>➤Key Point</p> <ol style="list-style-type: none"> 1. Established Material intensity dataset linked to CN technology evolution. e.g. Low CO2 material production process, Recycle ratio, RE ratio, Regional electricity intensity,, 2. Introduced energy based CFP calculation methodology to enhance primary data collection in parts production & vehicle assembly stage 3. Applied the dynamic modeling to electricity intensity for electric vehicle running CFP and updated lifetime mileage,, in use stage 4. Applied CFF to materials and parts recycling modeling to enhance not only CN but also CE. <p>➤ Third party certification</p> <p>The critical review successfully completed and the guideline certificated to ISO14040, 14044 and 14067 in August 2024.</p>	
Functional Unit	One vehicle with the annual mileage and number of years used indicated
Scope	Cradle to grave
Material Classification	Specified
LCI DB	IDEA and JAMA dataset
Mileage	Specified with each vehicle type
EoL modelling	Circular footprint formula (CFF)
Infrastructure/Capital goods	-

Outlook

- How to publish the guideline is under study



PFA LCA guidelines



Introduction

- French Automotive Plateform methodological recommendations to conduct a LCA to a vehicle or a vehicle equipment**
 - LCA approach proposed in the PFA LCA guidelines is the Attribute Approach
 - No direct Link to UNECE A-LCA except the participation of 2 Car Manufacturers (STELLANTIS & RENAULT GROUP) as members of OICA
-

Background

Involved actors	French Automotive Platform Car Manufacturers : Stellantis / Renault Group Suppliers : Michelin / Valeo / Forvia / OP / Saint Gobain
Phase	Published
Region/Country	Europe / France
Related to parts	Vehicles & parts
Impact Category	7 impacts categories : Acidification (AP)/Eutrophication (EP) /GWP100 years/Photochemical Ozone Creation Potential /Abiotic depletion (elements) / Metal depletion / Primary Energy Demand
Website/regulation	https://pfa-auto.fr/wp-content/uploads/2023/04/DT_Me%CC%81thodologie_2023_V15_ENGLISH.pdf
Vehicle type	Vehicles M1 & N1 or parts
Responsible experts	Emmanuelle Kobialka

Details

- Description of LCA Methodology and its potentials applications
- Description of LCA Recommendations :
 - Functional Unit: **use of one complete vehicle or a part over 15 years & over xx kkm** depend on segment (details on table)
 - Scope '**cradle to grave**' for a vehicle, or for a part system boundaries detailed ,
 - Impact categories following characterisation method CML, & Recipe
 - Recommendations for Life Cycle Inventory especially on materials / upstream and downstream logistic / driving stage (WLTC data for Europe) / production of fuel or electricity / maintenance / **End of life cut-off approach**
- Description of Interpretation of data & findings formalization of results should allow to identify the impacts of each phase of the life cycle

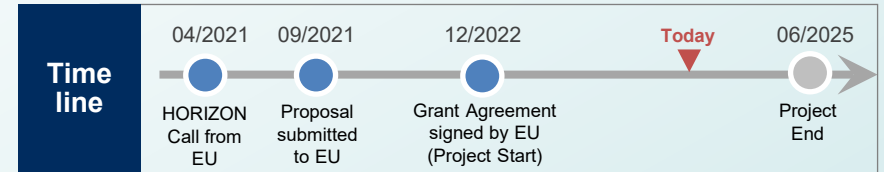
Segment	Mileage (k km)	Lifespan
A-SEGMENT	150	15 years
B-SEGMENT		
C-SEGMENT	225	
D-SEGMENT		
E-SEGMENT	270	
F-SEGMENT	270 / 300	

Functional Unit	One vehicle with lifespan of 15 years
Scope	Cradle to grave
Material Classification	No specific recommendation
LCI DB	SPHERA recommended
Mileage	See table with details by segment
EoL modelling	Cut off approach
Infrastructure/Capital goods	Excluded for part production but included for energy production

Next steps /Outlook

- Expected outcome : source of proposition for UNECE subgroups
- Activity ongoing during 2024 with updating probably on biogenic Carbon recommendations, and other items.

TranSensus LCA



Introduction

Aims to develop a baseline for a European-wide harmonised, commonly accepted and applied single life cycle assessment (LCA) approach for a zero-emission road transport system.

funded by EU commission as CSA (Coordination and Support Action)



Background

Involved actors	consortia: industry (8) and scientific (11)
Phase	Conceptualise LCA approach
Region/Country	EU
Related to	ZEV, battery
Impact Category	“all” (tbd) ecol.+social
Website/regulation	https://lca4transport.eu/
Vehicle type	LDV, HDV
Responsible expert	Diana Bartaune

Objectives

- Conceptualise & demonstrate a single, European-wide real-data LCA approach for zero-emission road transport, ensuring consistency, robustness, transparency and confidentiality needs
- Harmonisation of methodologies, tools and datasets
- Elaborate an ontology and framework for a European-wide LCI database
- Conceptualise LCI data management and update along the life cycle and along the supply chain
- Paving the way for LCA-based product and business development
- Consensus building across all stakeholders
- Defining & providing recommendations & guidelines for the fast uptake of a single LCA approach
- Identifying synergies and transfer potential towards non-road applications

Functional Unit	ton*km for freight vehicles; passenger*km for busses; passenger*km for passenger cars with default assumption of one passenger
Scope	cradle-to-grave
Material Classification	Not defined
LCI DB	ontology defined – acc. to ORIONT
Mileage	LDV: per vehicle class or 200.000km (for OEM); HDV: acc. to (EU) 2017/2400 (implemented in VECTO)
EoL modelling	cut-off approach
Infrastructure/Capital goods	excluded; Infrastructure in electricity and hydrogen generation included

Next steps

- Finalization of product LCA methodology, testing feasibility/applicability of method, starting stakeholder engagement
- Definition of method for prospective and fleet LCA



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