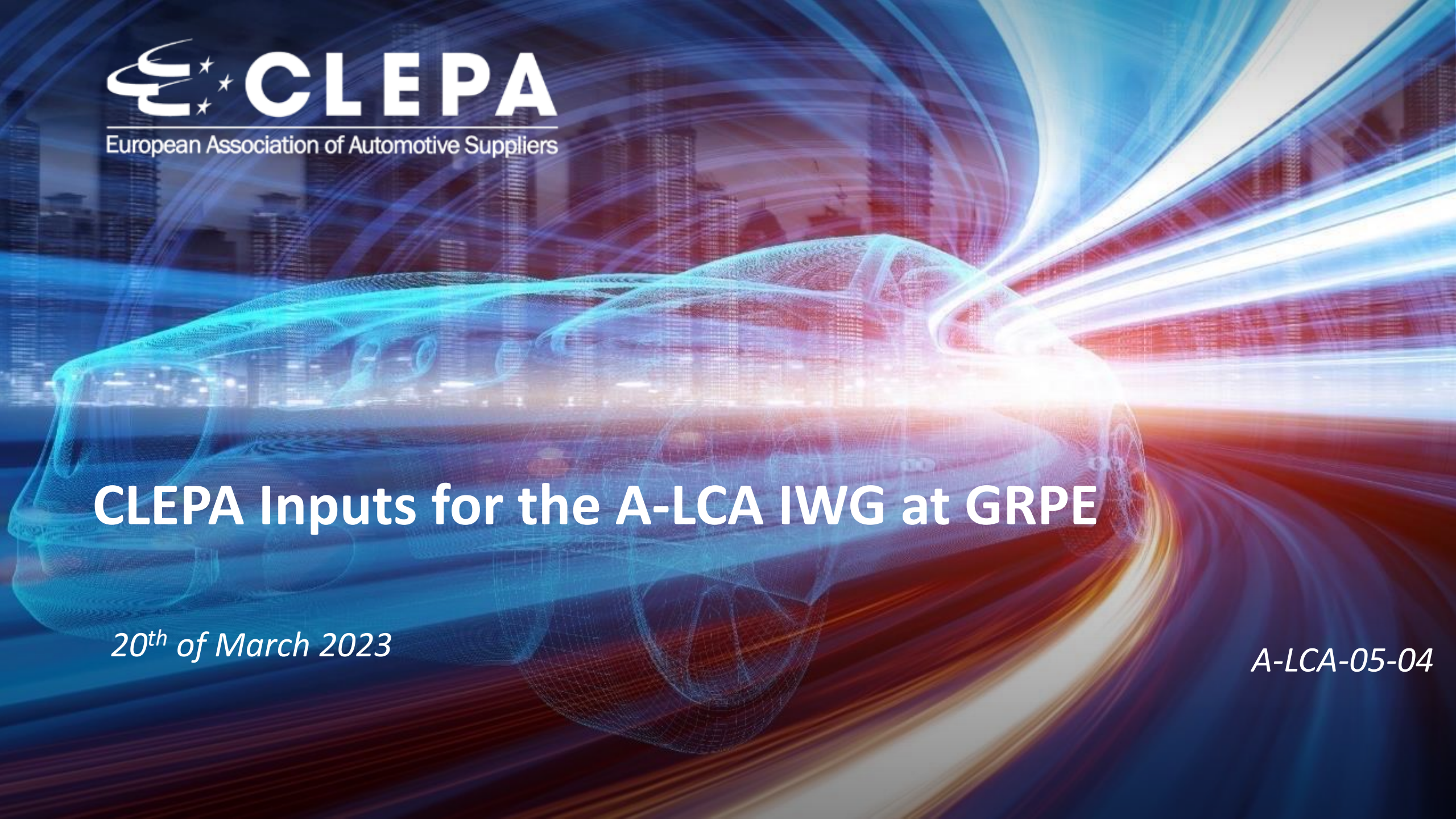

CLEPA Inputs for the A-LCA IWG at GRPE

20th of March 2023

A-LCA-05-04

VEHICLE LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY

WW Supplier Message

Reminder of CLEPA presentation by 10/24/2024

Supplier Industry needs a harmonized set of rules
for the cradle to gate CO_{2e} emissions of automotive components
to improve CO_{2e} footprint in a competitive environment at affordable cost

Supplier (CLEPA/JAPIA/MEMA) are willing to support actively the GRPE activity
on LCA CO_{2e} footprint rules for automotive product categories

MEMA®

JAPIA
Japan Auto Parts Industries Association

CLEPA
European Association of Automotive Suppliers

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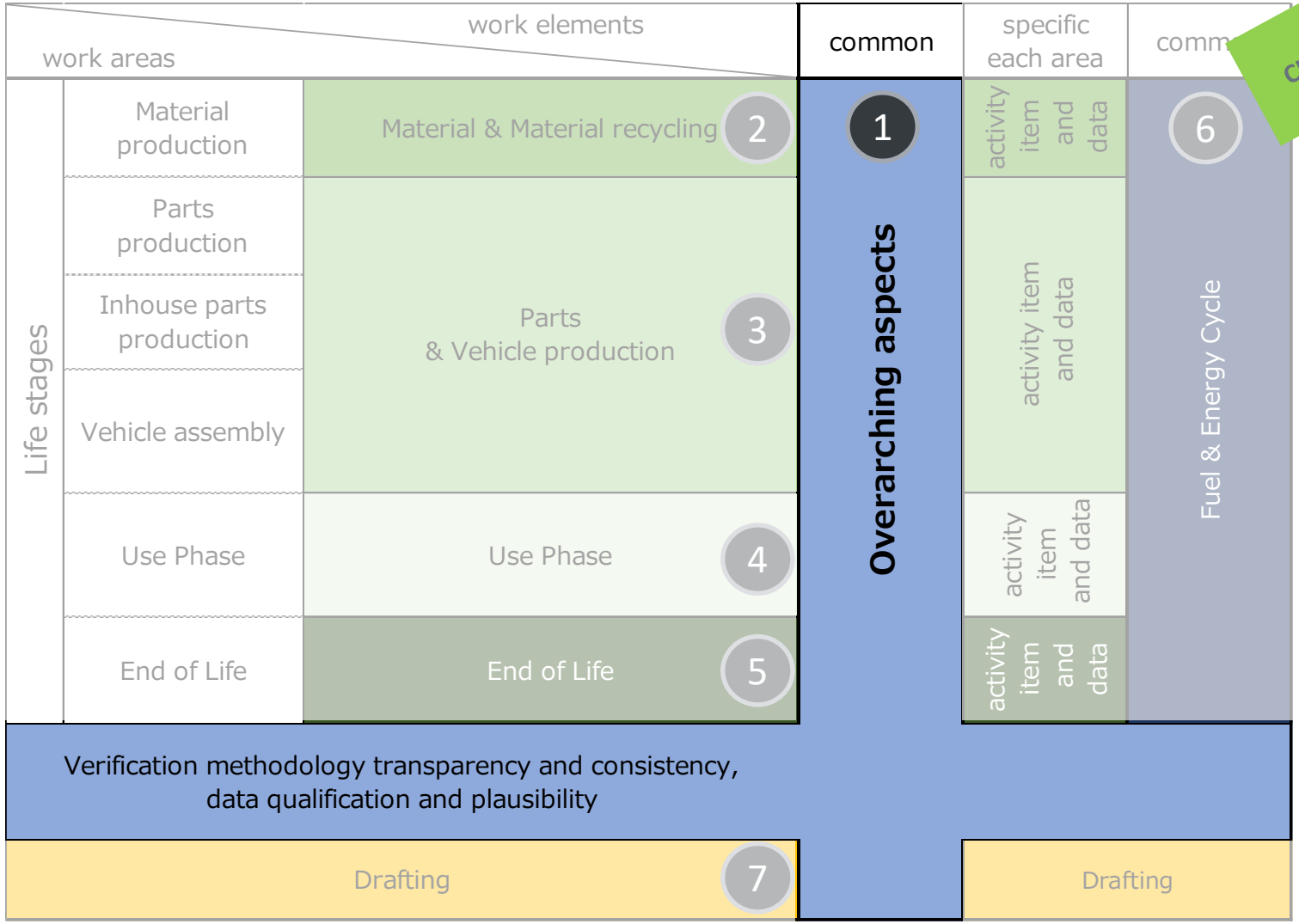
LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

CLEPA Working Structure Compromise Proposal



Working Groups

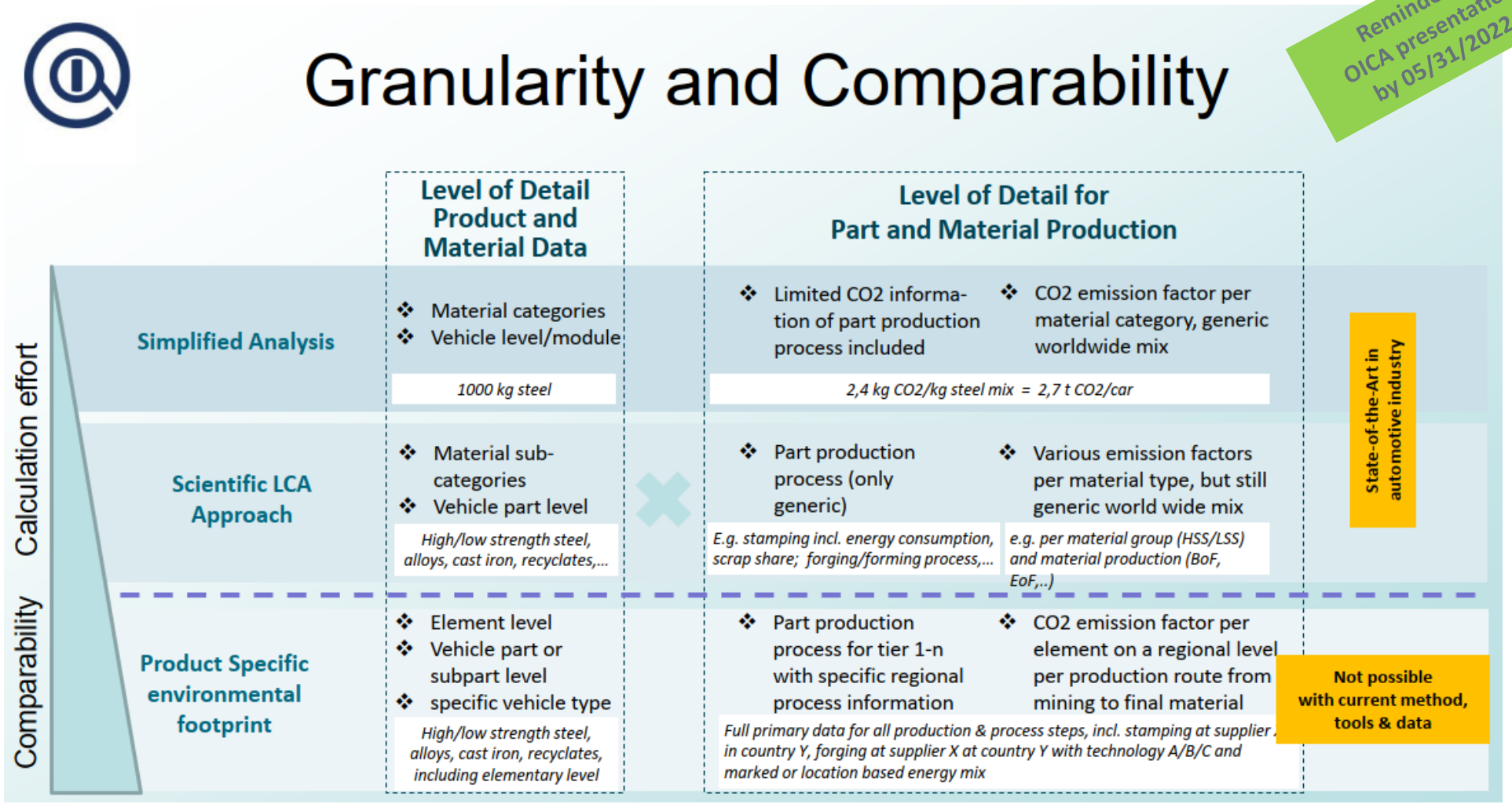
1. **Overarching aspects & verification**

2. **Material & material recycling**
3. **Parts & vehicle production**
4. **Use phase**
5. **End of life**

6. **Fuel & energy cycle**
7. **Drafting**

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

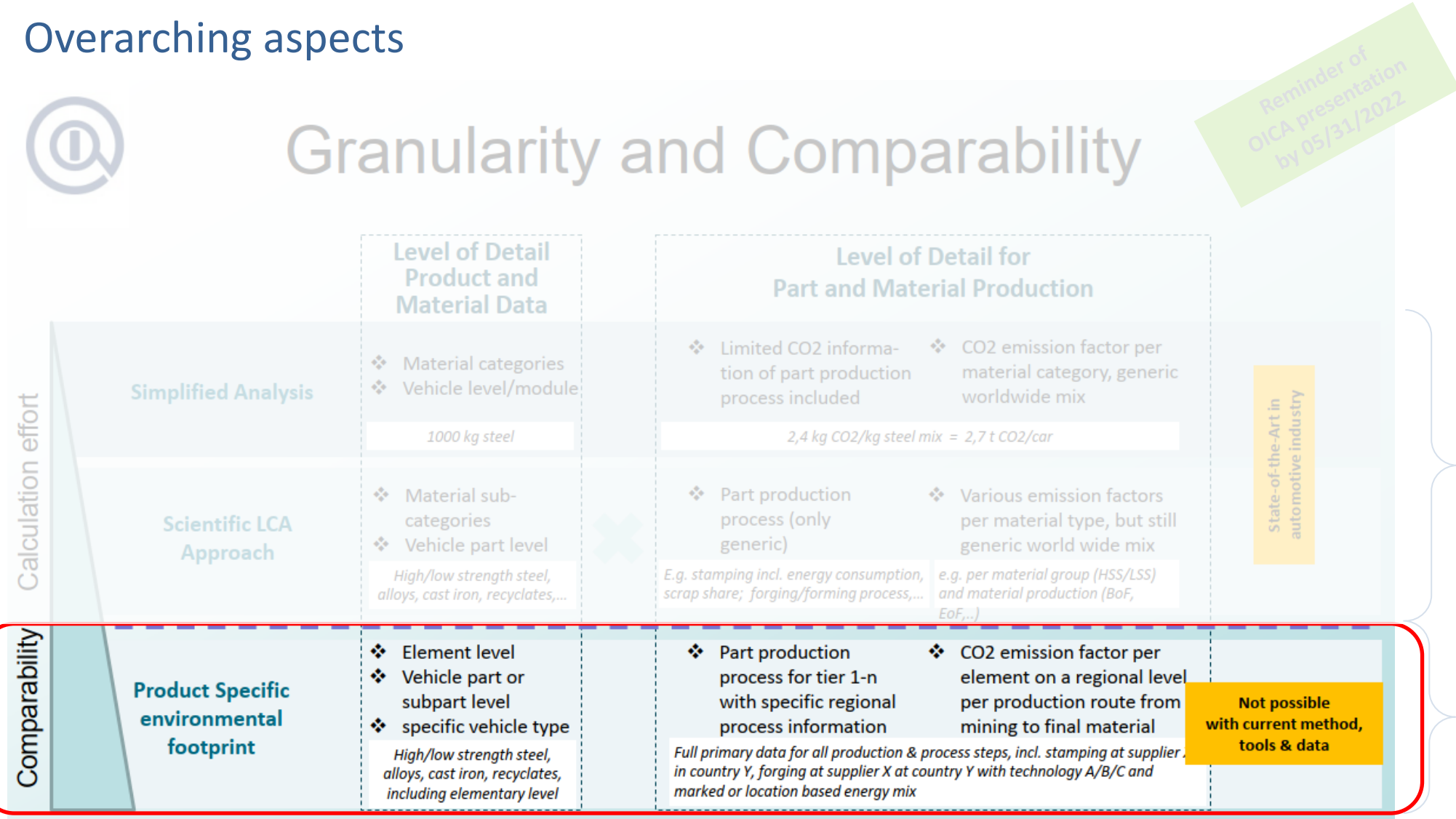
Overarching aspects



Sufficient for Consumer Information and Technology Selection. e.g. GreenNCAP, CONCAWE

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

Overarching aspects

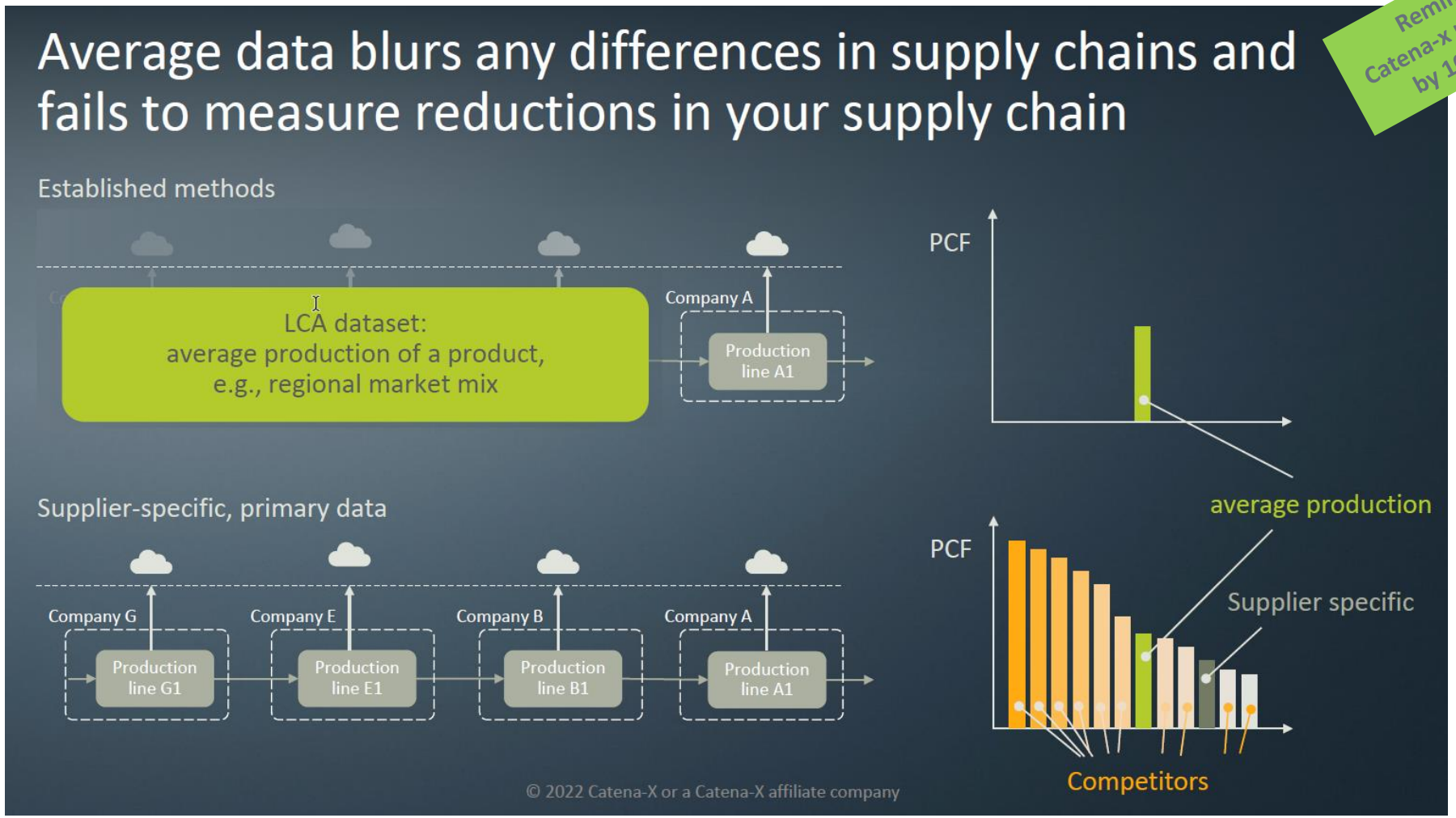


Sufficient for Consumer Information and Technology Selection. e.g. GreenNCAP, CONCAWE

Crucial for effective Decarbonization. Harmonized Methodology mandatory.

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

Overarching aspects



Consistency ensured by Analysis from a single entity but results in PCF status only no decarbonization options

Competition on PCF enables informed supplier choice and fast decarbonization but harmonized method between various entities is crucial for comparability

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

Overarching aspects

Cut-off criteria → **WG 1**

Secondary data (quality req.) → **WG 1**

Allocation schemes → **WG 1**

} Crucial for Comparability

Waste & Recycling

- "Polluter pays" principle ☐
- Recycled material enters free of burden from earlier product system ☐

Chain of custody models

- Allowed within the same product system ☐
- Carbon offsetting: Not allowed ☐

Declared unit (during production):

- Declared unit is one piece of product one kilogram of material ☐

Functional unit (as vehicle is assembled) → **Use Phase WG 4**

- gCO_2e/km (tbd) over lifetime per vehicle for passenger cars? Other vehicle types/segments?

Lifetime → **Use Phase WG 4**

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

Overarching aspects

Scope:

- All life-cycle phases: All upstream emissions including upstream emissions directly related to the product system (without background system) ☑
- All vehicle types, all propulsion technologies ☑

Impact category:

- Green house gas warming potential GWP_{100y}: CO_2 equivalent (CO_2-eq) emission as of IPCC AR6 (including carbon feedbacks and chemical effects) ☐

Analysis approach

- Attributional and step wise ☐

Base methodology and definitions:

- Normative reference ISO 14067 based on ISO 14040 and 14044 ☐

Reporting

- Activity data based (primary data) if satisfying quality requirements ☐
- Secondary data only if no complete primary data available and if satisfying quality requirements ☐

LIFE-CYCLE CARBON FOOTPRINT METHODOLOGY FOR VEHICLES

Overarching aspects

Guiding Principles of Methodology:

- **Quantitative comparability** of materials/components/products/vehicles in terms of CO_2e emissions
  - Conservative estimates mandatory on what is not known/measured
- **Globally applicable** and verifiable for enterprises of all sizes (global and SME)
- **Minimal effort** for quantification/verification


CLEPA
European Association of Automotive Suppliers
Thank you