



# The Role of LCA in the Sustainability Debate

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# Agenda

About Sphera

Sustainability and LCA

An Essential Role of LCA and its Impacts

Summary

# About Sphera

# Sphera Office Locations



# Sphera Stands Alone in Delivering ESG Solutions from the Ground Up



# Sustainability and LCA

# Sustainability: Definition

Brundtland Report 1987 defines ecological sustainability:

“ *Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs* ”



# Managing Sustainability Has Never Been More Important or More Complex

Increasing number of sustainability reporting frameworks

Quantification & reduction of value chain (Scope 3) emissions

Lack of reliable industry-based emissions data

Demonstration of actual emission reductions & improvements



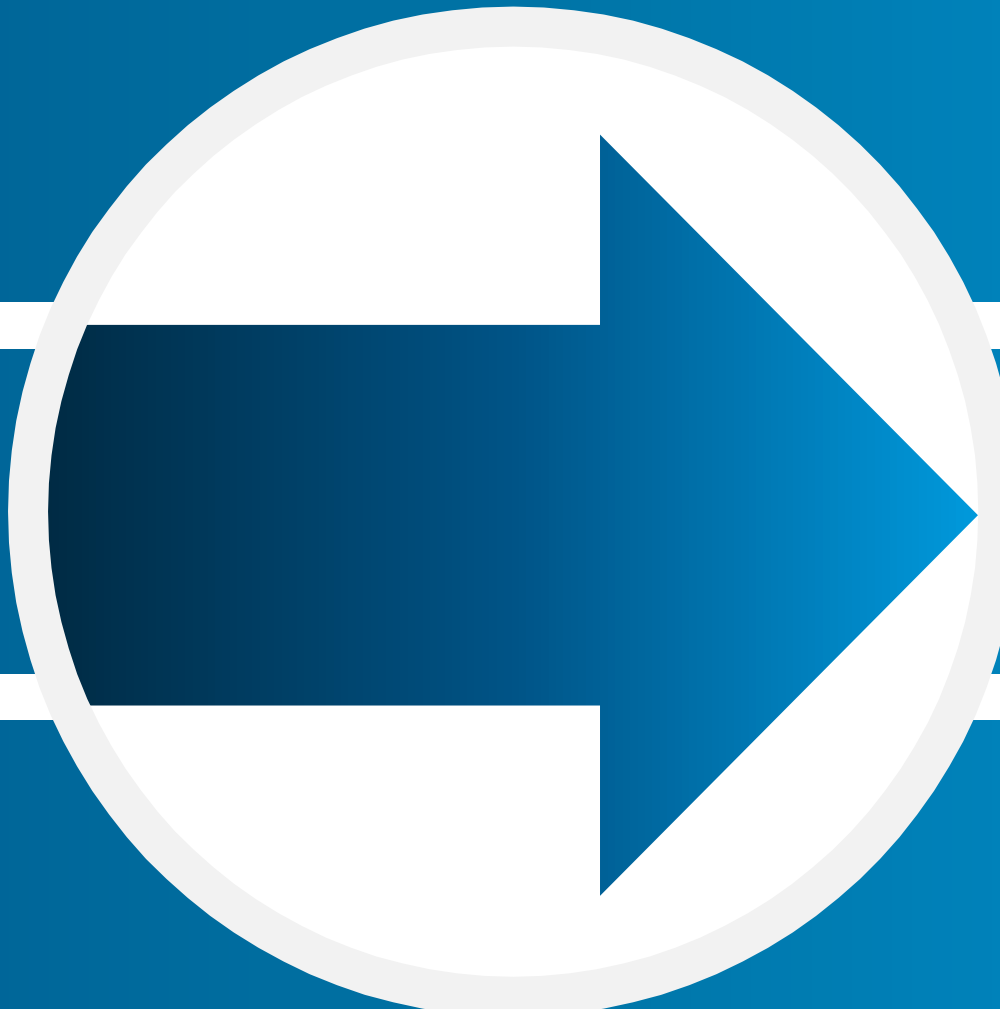
# Current Challenges

# Current Focus

Fragmented sustainability efforts with unclear goals

Value Chain (Scope 3) emissions assessment based on financial data or not considered at all

Missing improvement measures such as fact-based supply chain programs



Sustainability in silos vs. Holistic strategy

Qualitative vs. Science-based targets

Marketing claims vs. Actual reductions

# Sustainability is Critical to Business Success



Establishing an accurate baseline



Collecting & managing data



Responding to evolving regulations

Predictive & measurable insights & actions

Insightful reporting for stakeholders



Prescribing a path to sustainability goals



Protecting the brand & the environment

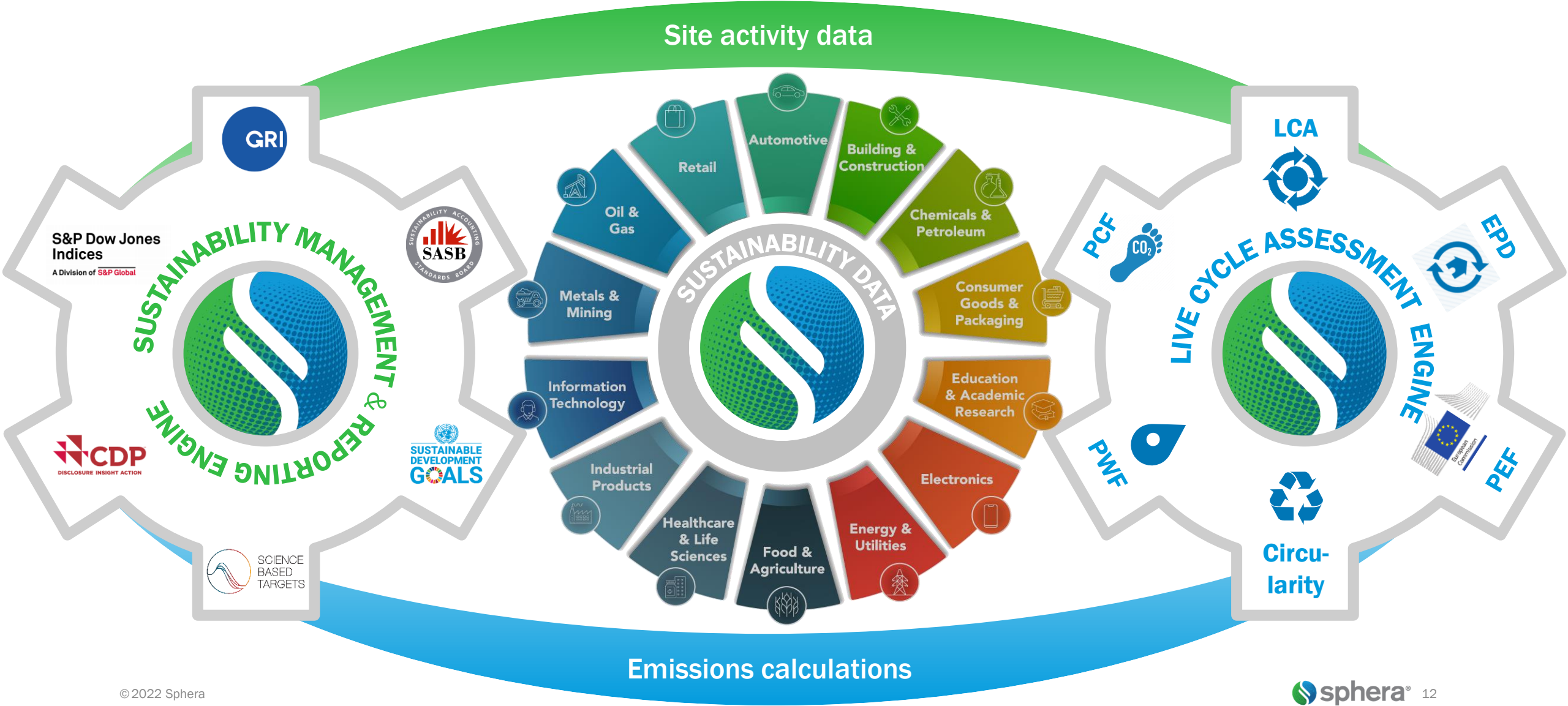


# Roadmap Development Toward Sustainability Excellence



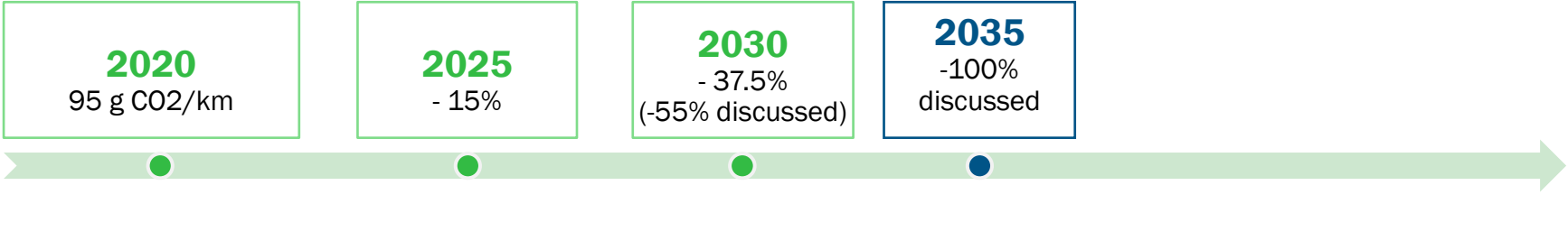
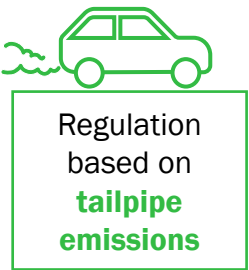


# Connecting Corporate and Product Sustainability

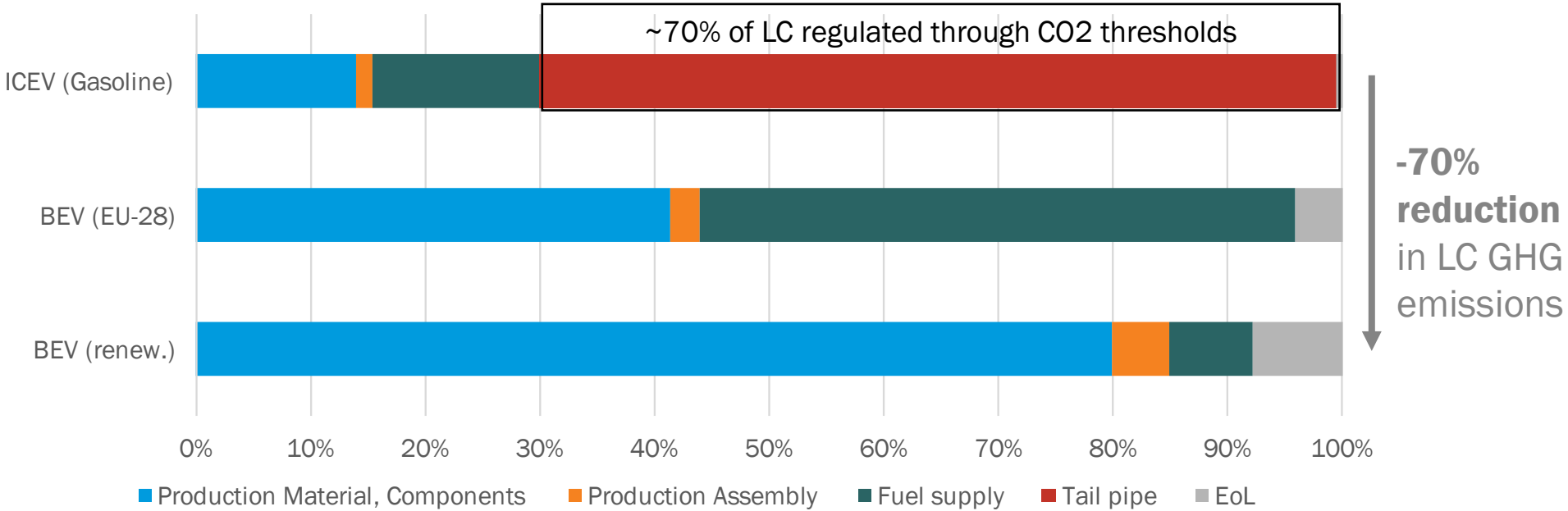


# An Essential Role of LCA and Its Impacts - Example Importance of Scope 3 in Corporate Sustainability

# Example: Regulatory Demand: EU Regulations Passenger Cars



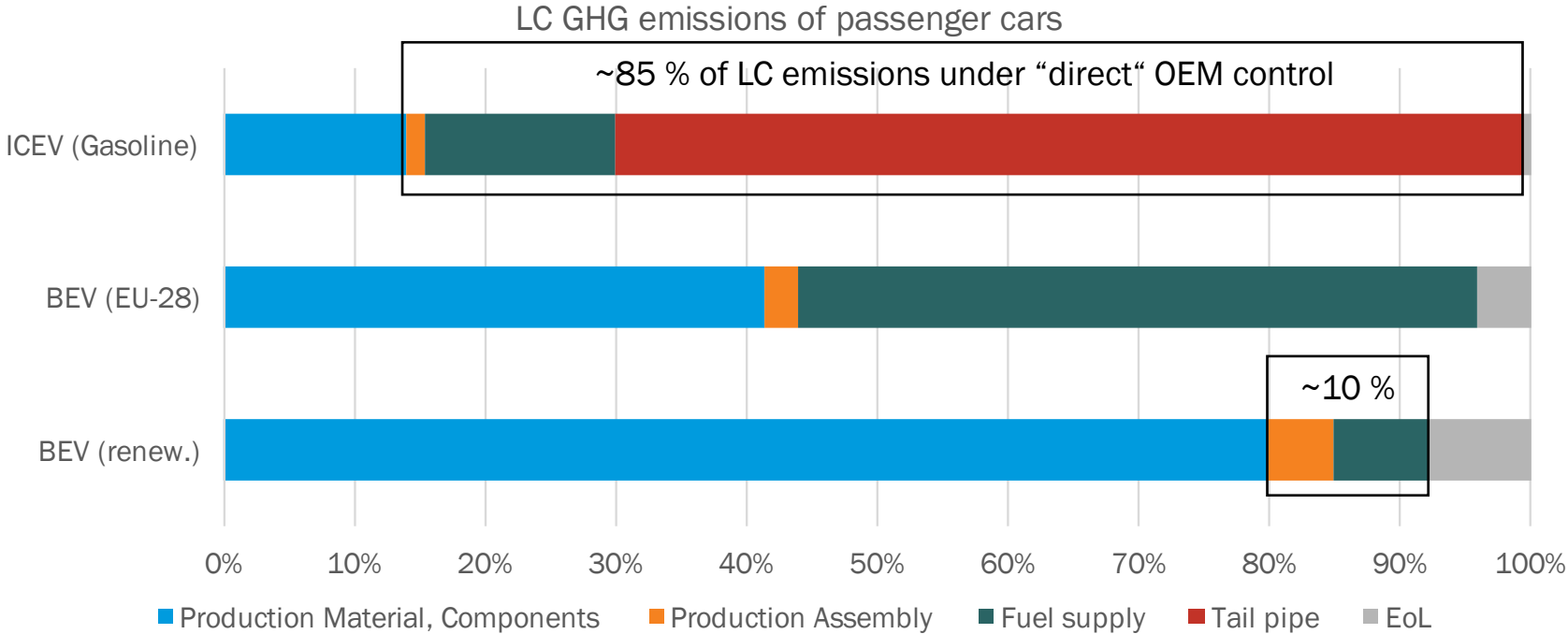
LC GHG emissions of passenger cars





# OEM Requirements

OEMs are setting climate net-zero targets



### LCA Reporting:

- Cradle-to-gate acc. to ISO14040 or 14067 etc.
- EPDs, background reports, own LCA calculation or LCI data

### LCA Preciseness:

- Product scrape rates (gross material demand)
- Recycled content
- Data granularity

### LCA Forecast:

- Reduction measures and impact

# Starting From Corporation



**Major impact:** scope 3.1

**Challenge:** data for materiality assessment

**Sources of reliable CO2 eq. data of the supplied materials:** public domain, associations or commercial database

**Materiality assessment:** hotspots in selection of specific materials

**Next challenges:** Identification of low hanging fruits for improvement

## Option 1

**Tool to identify reduction potential**  
based on realistic reduction measures in the respective industry + then contact with supplier



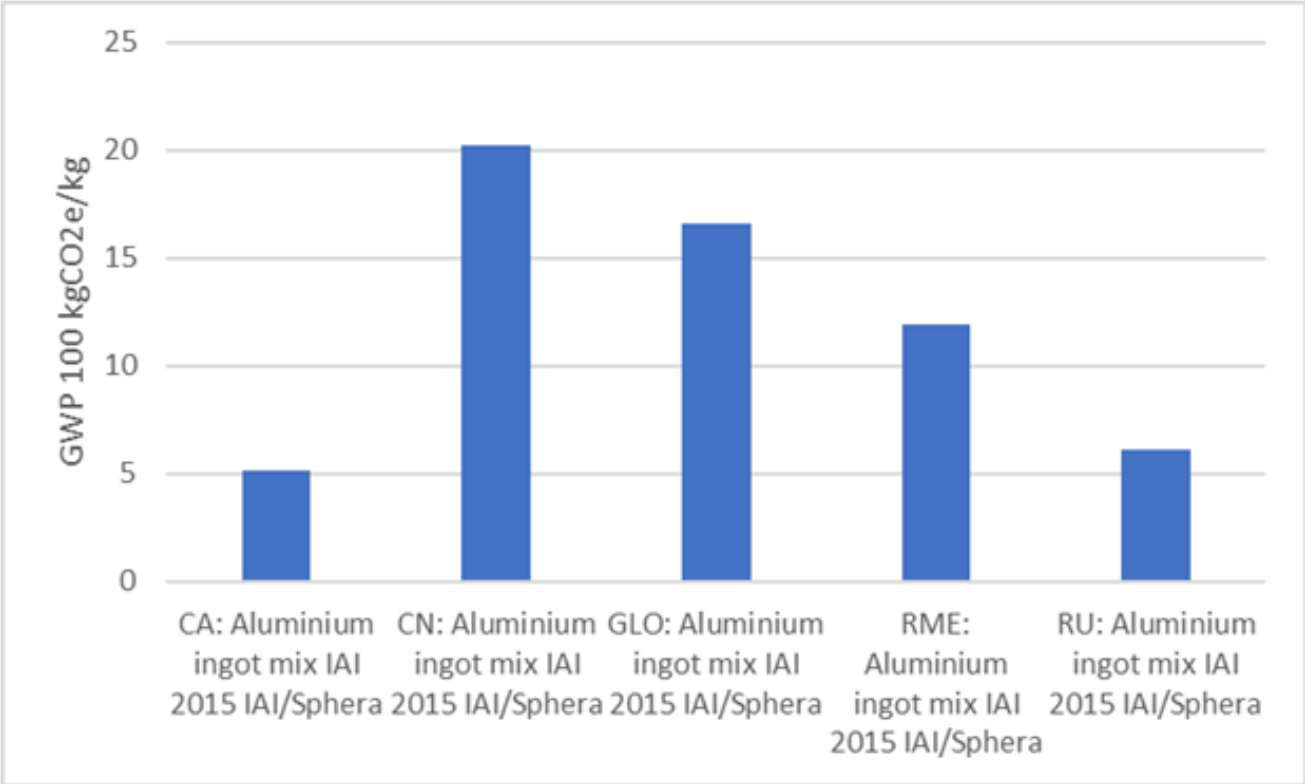
## Option 2

**Gather CO2 eq. data directly from supplier**



# Scenario Tool: Example Aluminium

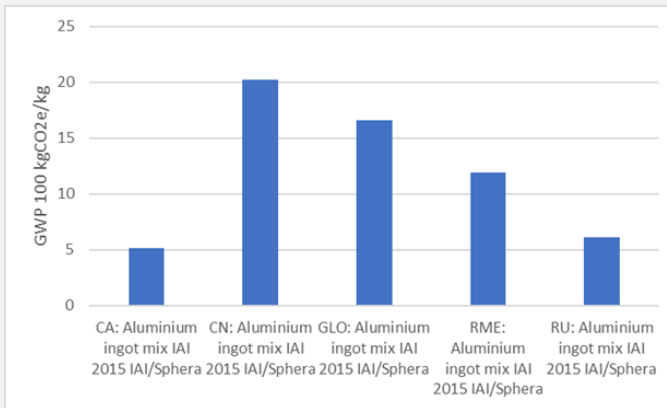
Association average





# Scenario Tool: Example Aluminium

## Association average



## Specific data

- Selection of region
- Selection of fuel types

Alumina

Smelter

Cast house

- Flexibility of different primary ingot input
- Adjust the share of scrap
- Option of changing origin of alloying elements

- Selection of electricity
- Selection of anode consumption

# Scenario Tool: Example Aluminium



**Data Collection & Data Quality**

**Baseline Calculation & Hotspot Assessment**

**Scenario Modelling & Decarbonization Potential**

**Decarbonization Strategy & Supplier Programs**



# Advantages of LCA: Not Only Carbon Emissions

## CO2 equivalent

- Important topic today but LCA's showing other impacts as well



## Other impact categories



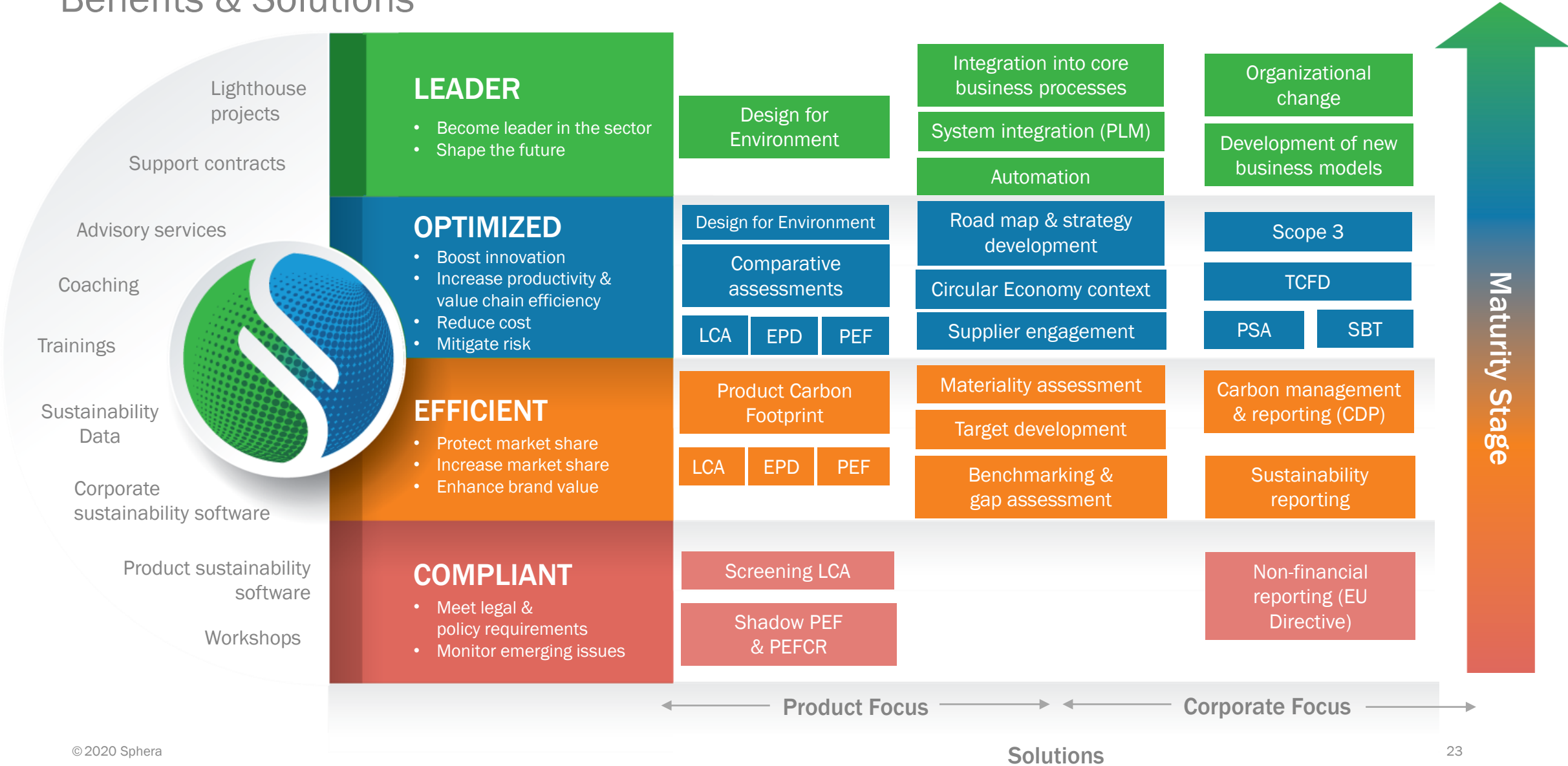
- Water consumption
- Waste treatment
- Acidifying potential
- Summer smog



# Summary

# Sustainability and LCA in Maturity Stages

## Benefits & Solutions





Questions?



# Contact Us

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