Session: Turning the lens around:
LCA Success Stories "outside-in"

Implementing LCM all along the supply chain: from compliance to collaborative value creation

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1. Plateforme [avniR] by cd2e, (Rue de Bourgogne - Base 11/19 - 62750 Loos-en-Gohelle, France).

2. Renault (1 Avenue du Golf, 78280 Guyancourt, France).

[avniR] platform:

DISCOVER
- >50 conferences and workshops
- 4 physical ressource centers (>500 references and tools)
- 30 videos on youtube

LEARN
- >50 training courses organised for professionals
- >3000 students trained every year on LCA
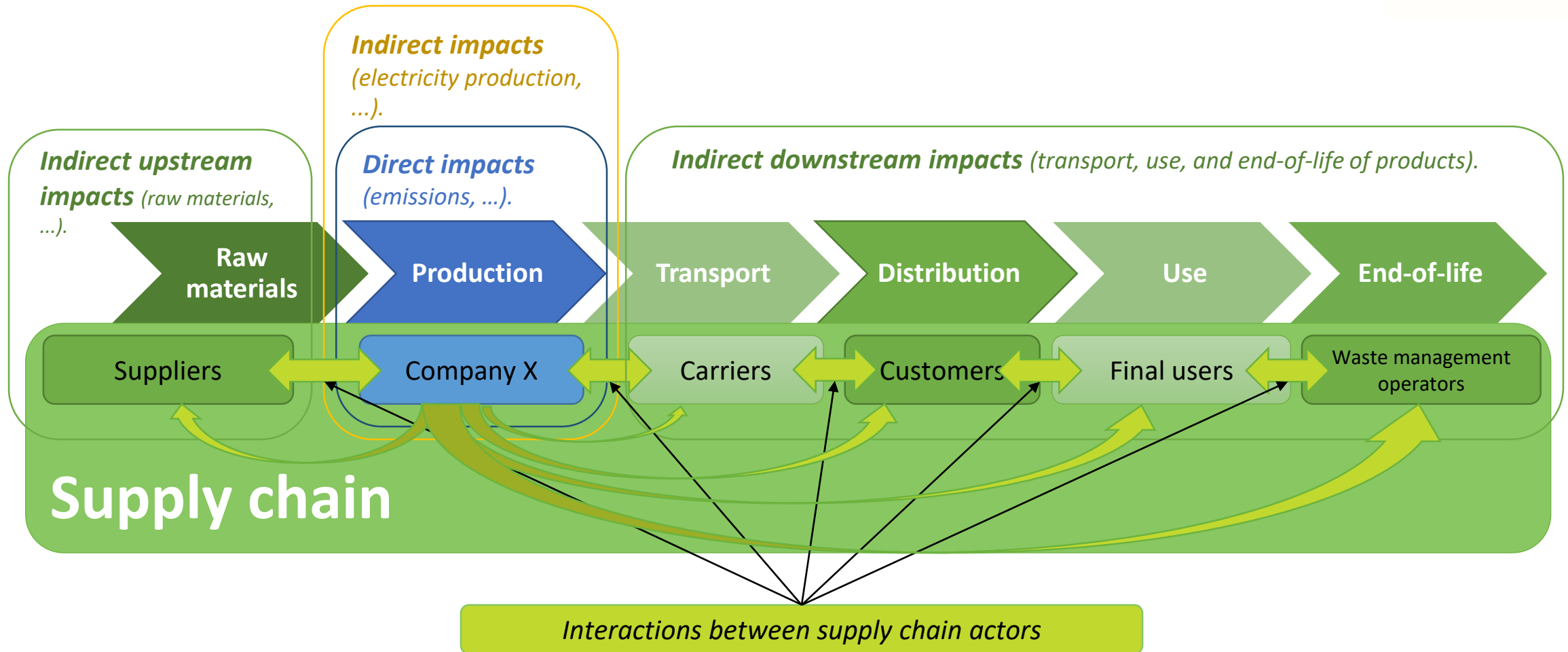- 150 working groups (SLCA, LCC, etc.)

ACT
- >15 LCA and ecodesign tools accesible
- >200 companies supported on LCM

COLLABORATE
- >1000 partners worldwide
- >50 collaborative projects

Supply chain and environmental issues

Indirect impacts *(electricity production, …)*.

Indirect upstream impacts *(raw materials, …)*.

Direct impacts *(emissions, …)*.

Indirect downstream impacts *(transport, use, and end-of-life of products)*.

Raw materials | Production | Transport | Distribution | Use | End-of-life

Suppliers | Company X | Carriers | Customers | Final users | Waste management operators

Supply chain

Interactions between supply chain actors

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Why looking at supply chain?

Opportunities

All companies (SMEs, large businesses …) and all departements are concerned (R&D, purchase, marketing …).

Creating value beyond reduction of environmental impact (e.g. economic, social, image, knowledge …).

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Threats

More than 80 % of GHG emissions in most consumer-goods categories are in supply chains.*

* State of Green Business 2013, GreenBiz

Current and future regulations / norms, which integrate supply chain actors (non-financial reporting, ISO 14001:2015, Organisation Environmental Footprint …).
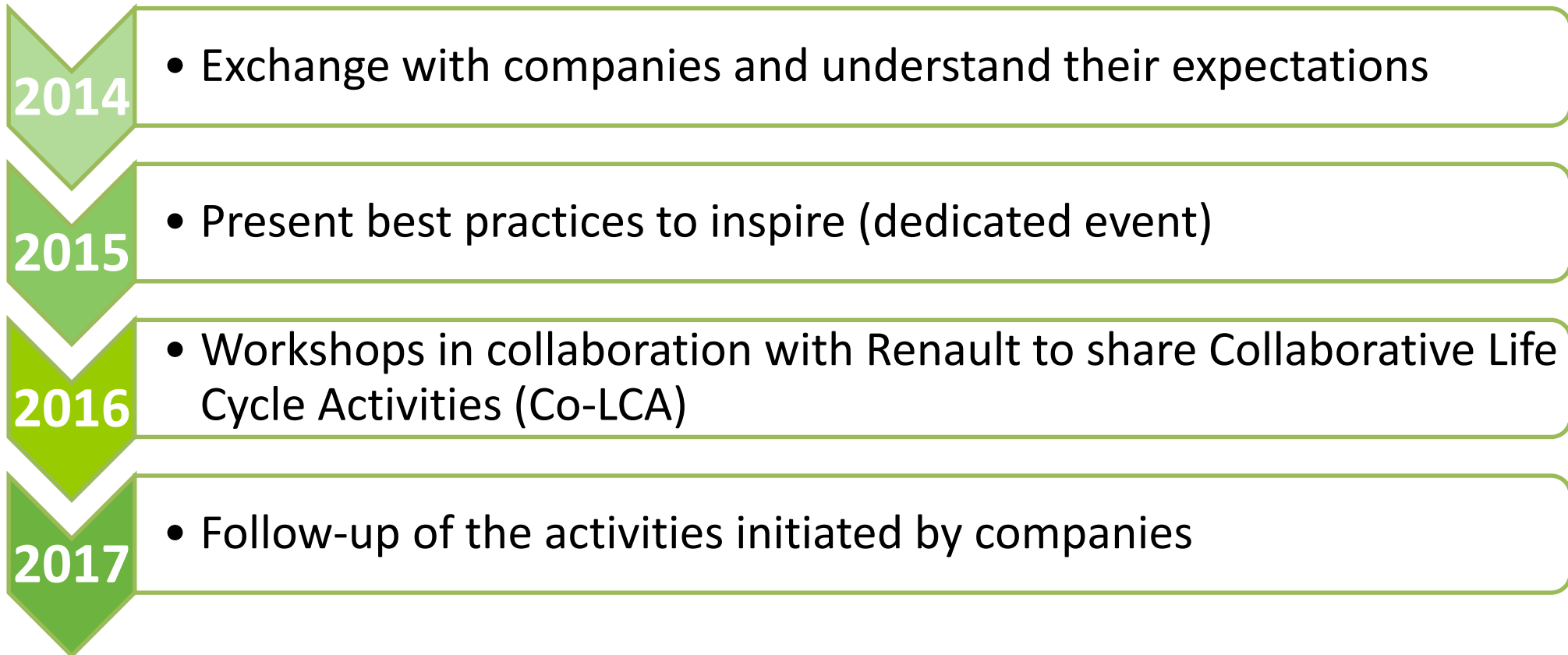
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How to implement LCM?

- [avniR] platform initiated a working group to mainstream LCM all along the supply chain called "customer/supplier working group".

- Different actions were conducted, including awareness rising, workshops and collaborative working groups based on identified needs from the stakeholders.

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Customer/supplier working group

2014
- Exchange with companies and understand their expectations

2015
- Present best practices to inspire (dedicated event)

2016
- Workshops in collaboration with Renault to share Collaborative Life Cycle Activities (Co-LCA)

2017
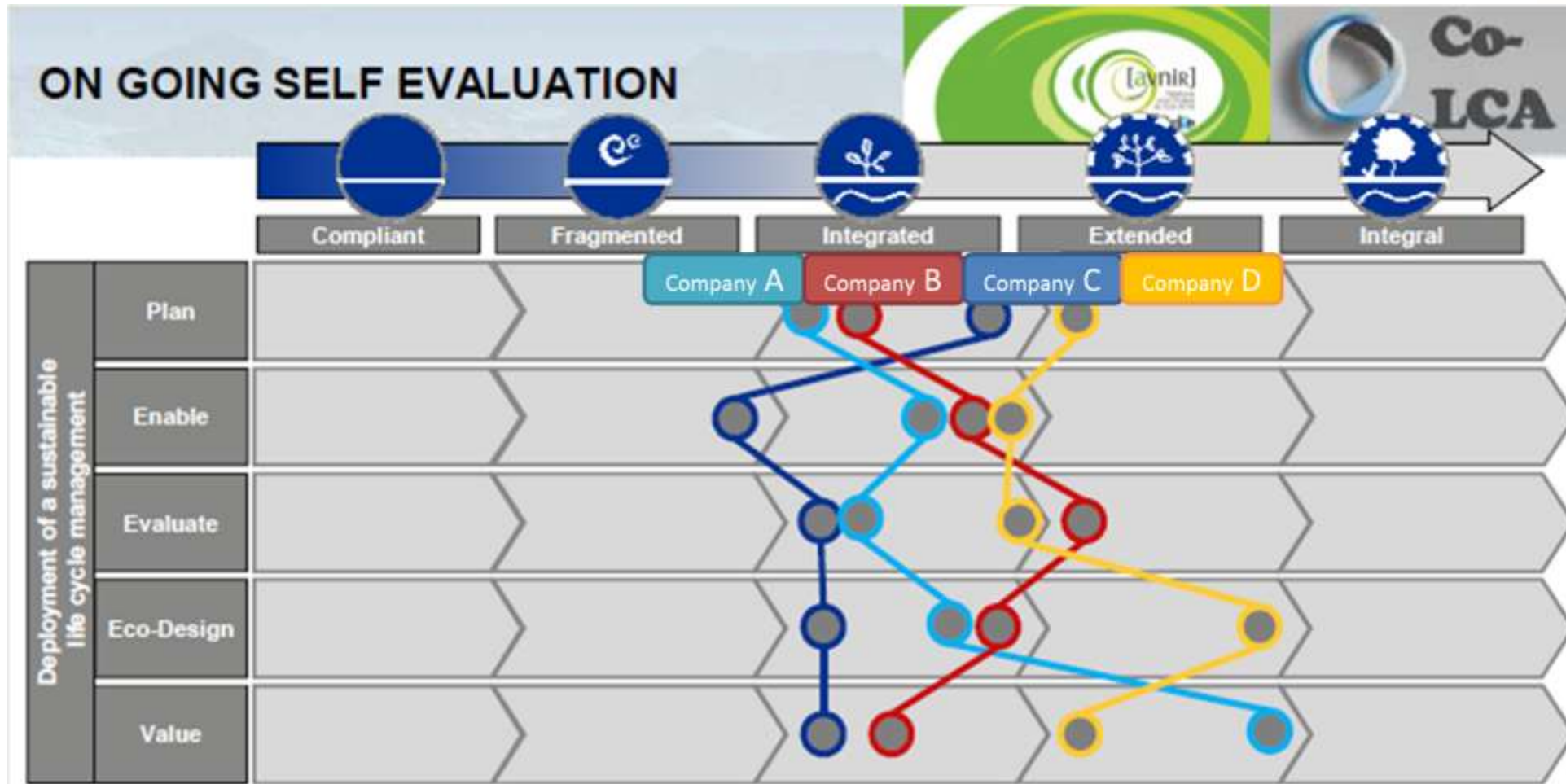- Follow-up of the activities initiated by companies

Co-LCA methodology

- *1st step:* **self assessment was conducted by companies internally involving different departments** *(marketing, R&D ...) in order to understand their current maturity and supporting them to identify their strengths and weaknesses.*

Driving the transition towards Extended maturity level and new business models settlement with the support of Collaborative Life Cycle Activities Co-LCA (Morel 2014).

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Zoom on Co-LCA output

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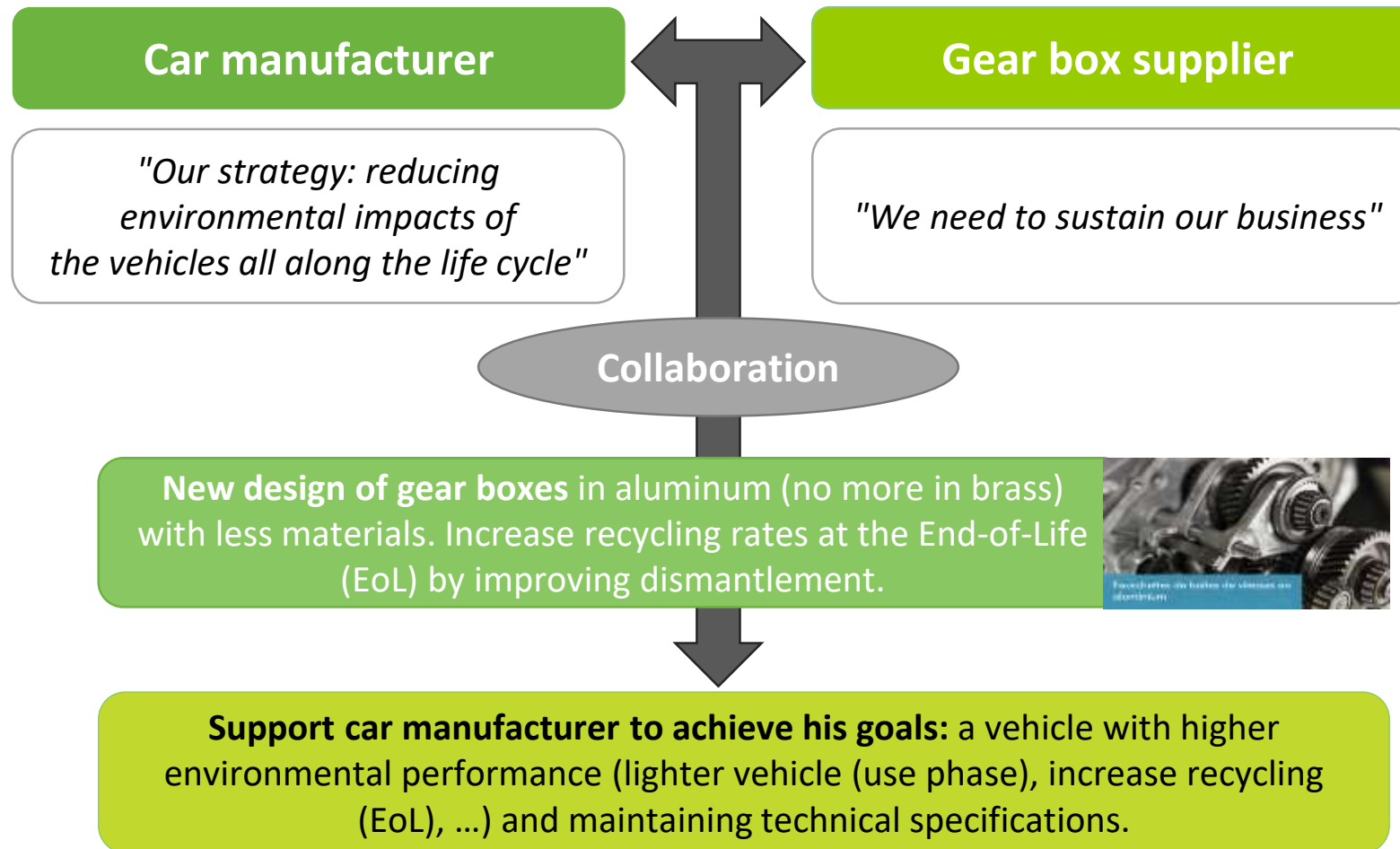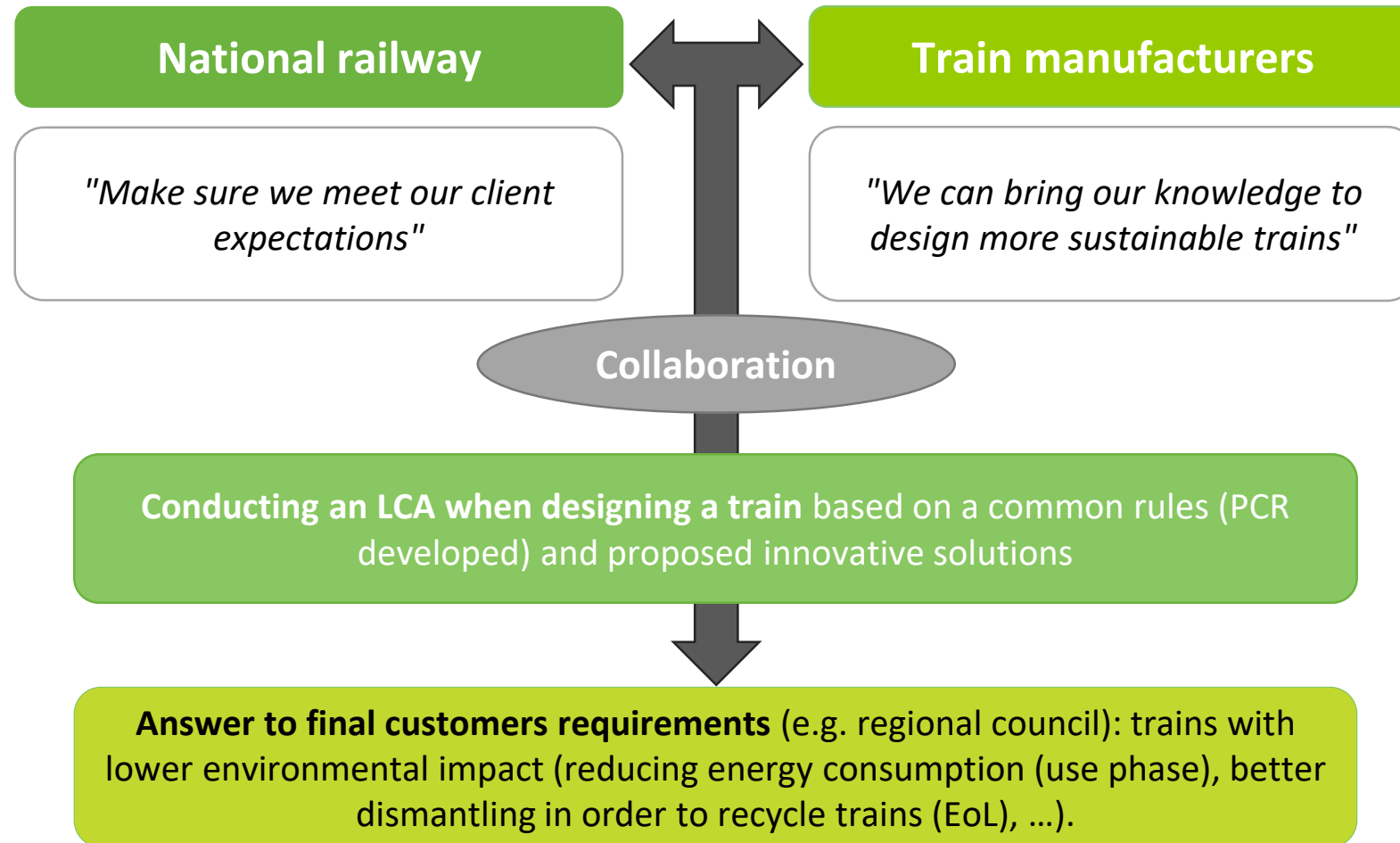# Co-LCA methodology

- *2nd step:* **Co-build an action plan to move forward in LCM implementation** and developed actions with suppliers and/or clients.

- *3rd step:* **Evaluate the shared benefits created** for each participant through 4 categories: Financial, Image, Skills and Decision.

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Inspiring examples: automotive sector

Car manufacturer	Gear box supplier
"Our strategy: reducing environmental impacts of the vehicles all along the life cycle"	*"We need to sustain our business"*

Collaboration

New design of gear boxes in aluminum (no more in brass) with less materials. Increase recycling rates at the End-of-Life (EoL) by improving dismantlement.

Support car manufacturer to achieve his goals: a vehicle with higher environmental performance (lighter vehicle (use phase), increase recycling (EoL), …) and maintaining technical specifications.

Inspiring examples: railway sector

National railway	⬌	Train manufacturers
"Make sure we meet our client expectations"		*"We can bring our knowledge to design more sustainable trains"*

Collaboration

Conducting an LCA when designing a train based on a common rules (PCR developed) and proposed innovative solutions

Answer to final customers requirements (e.g. regional council): trains with lower environmental impact (reducing energy consumption (use phase), better dismantling in order to recycle trains (EoL), …).

Thank you!
Questions?

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Next stop of LCM community:

8th & 9th November 2017 in Lille (France)

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