

How Life Cycle Information will be used in a Digital Circular Economy?

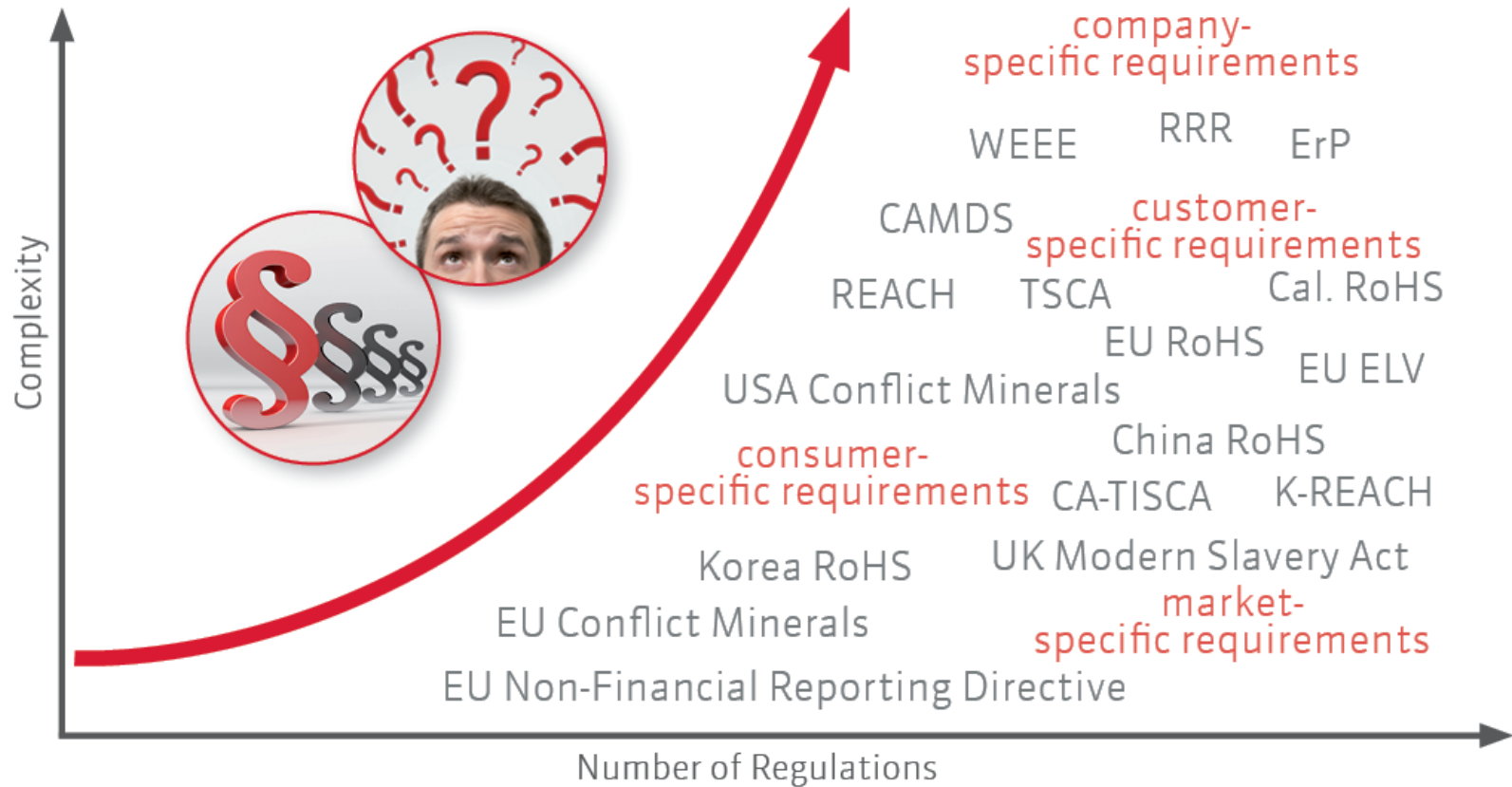
Andreas Genest, ifu Hamburg GmbH

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Member of iPoint Group



- Challenges and Hurdles for a Circular Economy
- What is the Digital Circular Economy?
- How will Life Cycle Information be used?
- Life Cycle Information @ OHLF
- Outlook

Challenge: Rapid Growth of International Laws and Stakeholder Requirements



Complexity

- complex products
- complex production networks
- complex supply chains

Transparency

- ingredients / composition
- contributing suppliers
- use phase information

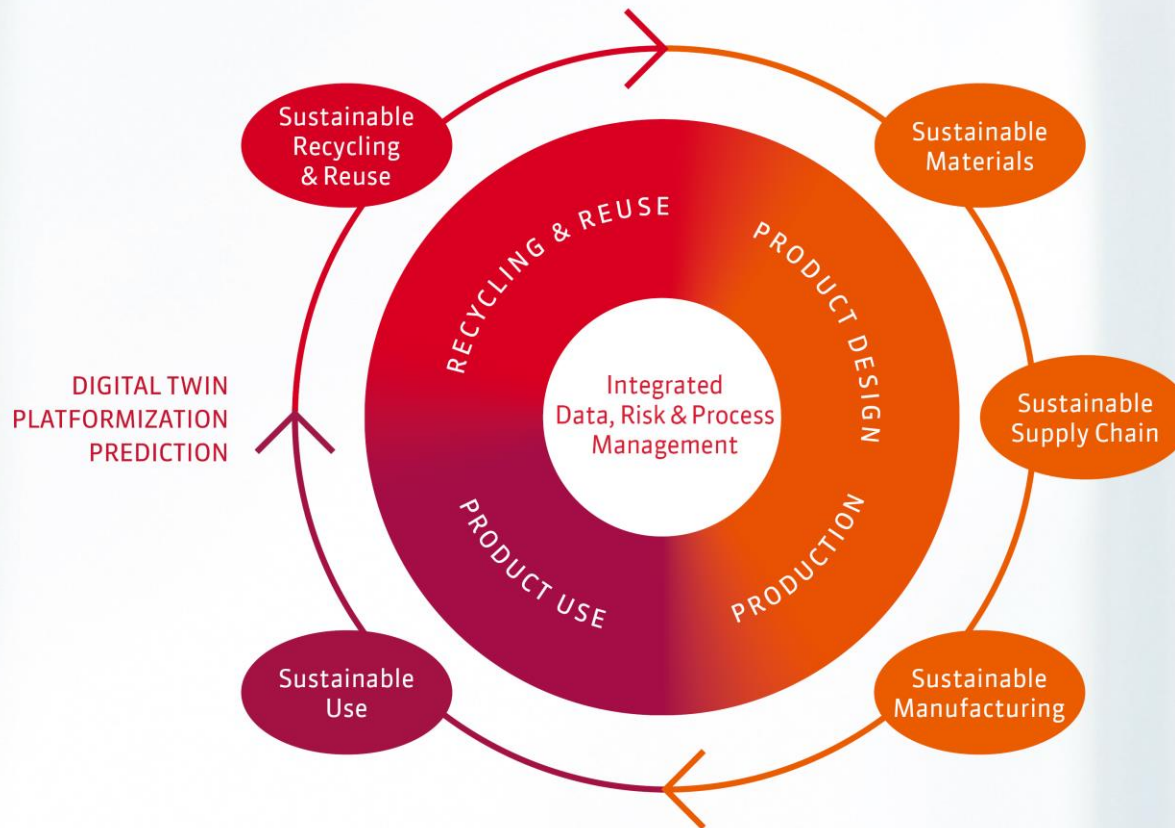
Business Models

- linear by design
- consumption <-> use
- owning <-> sharing
- dependency of growth

The screenshot shows the top of a Guardian article page. The navigation bar includes 'Support The Guardian', 'Subscribe', 'Find a job', 'Sign in / Register', and 'Search'. The main navigation menu has 'News', 'Opinion', 'Sport', 'Culture', 'Lifestyle', and 'More'. The article title is 'Circular economy isn't a magical fix for our environmental woes'. The author is 'Micha Narberhaus and Joséphine von Mitschke-Collande', with a bio: 'Founder of Smart CSOs Lab and programme manager at Innaxis Research Institute'. The date is 'Fri 14 Jul 2017 10.04 BST'. There are social media icons for Facebook, Twitter, and Email, and a share count of '1,693 7'. The main image shows a large pile of plastic waste on a beach. On the right, there are four buttons: 'Ad covered content', 'Not interested in this ad', 'Ad was inappropriate', and 'Seen this ad multiple times'.

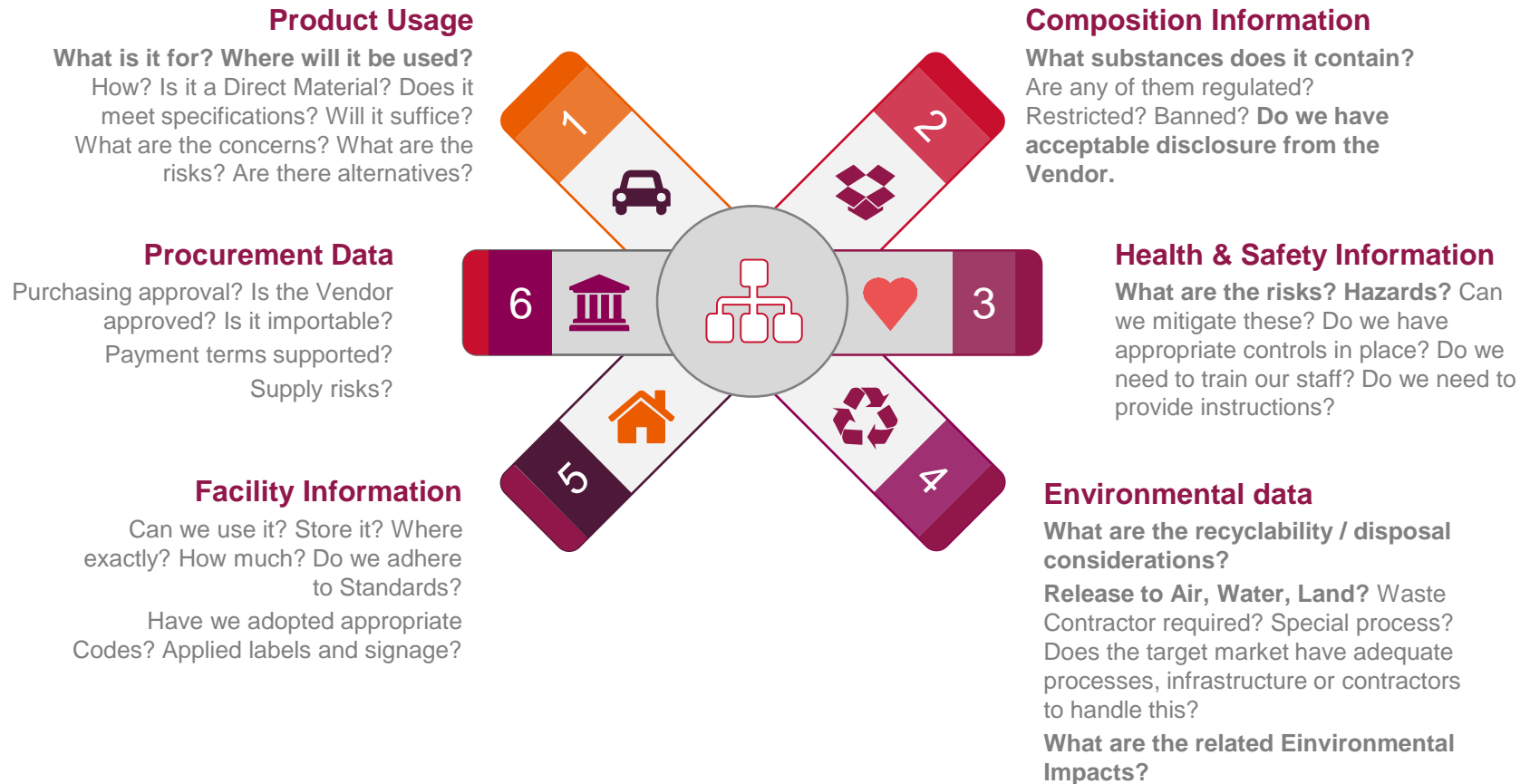
<https://www.theguardian.com/sustainable-business/2017/jul/14/circular-economy-not-magical-fix-environmental-woes-global-corporations>

Digital Circular Economy – Holistic Life Cycle Management Approach



Life Cycle Information is key enabling Circular Economy

Information relevant to be included and updated for enabling circular economy



Current Development: Live LCA

More and more data is available anyway – Let's use and add life cycle information



Outlook: Solution „Live LCA“ product-specific Life Cycle Information



Climate: 8,6 t-CO₂
Energy: 35.344 kWh

Climate: 8,8 t-CO₂
Energy: 39.344 kWh
309 € saving potential

Climate: 8,7 t-CO₂
Energy: 39.765 kWh
312 € saving potential

Climate: 9,2 t-CO₂
Energy: 46.361 kWh
Saving potential: 488 €

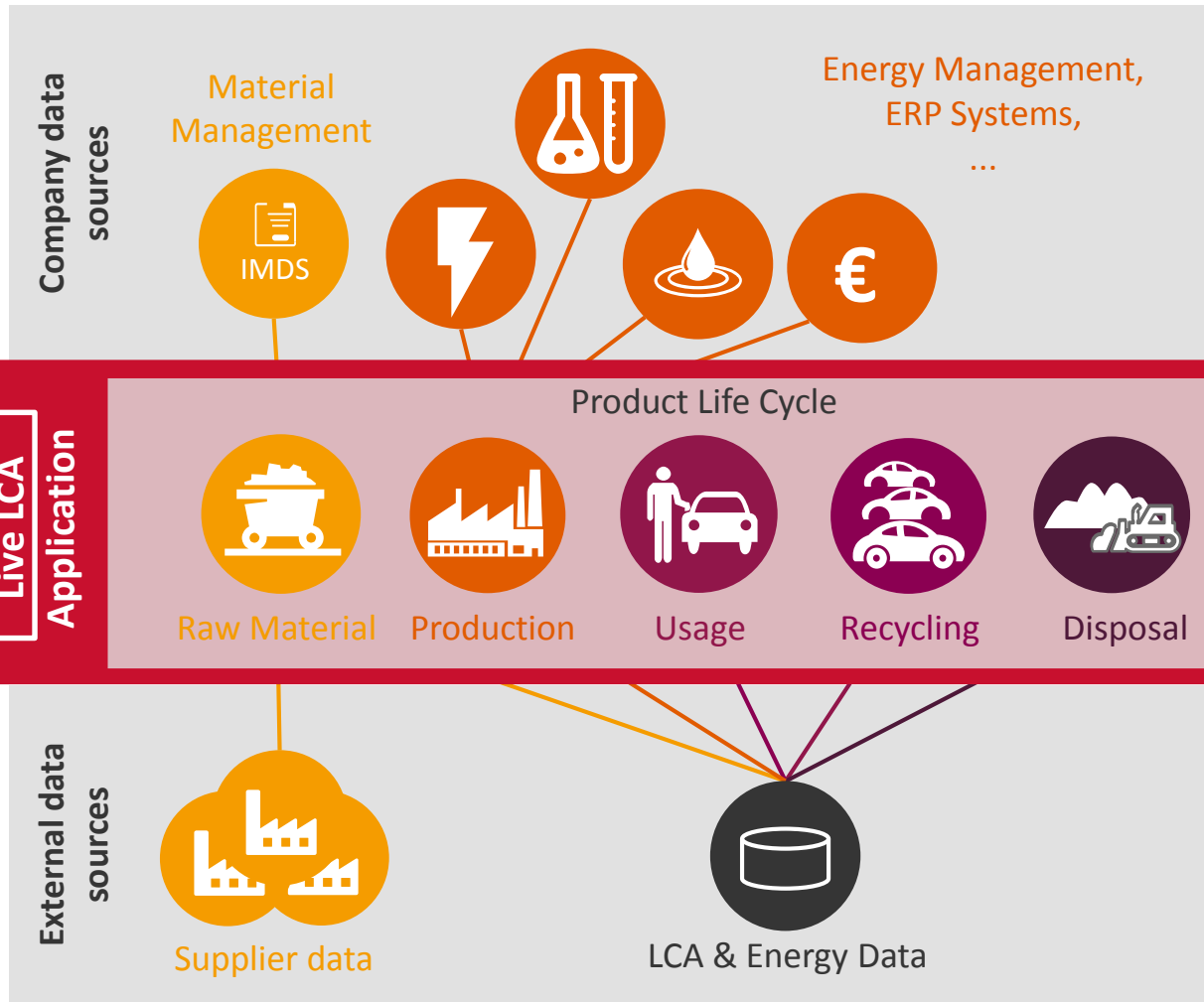
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Innovation

Innovative software solution for automated LCA

- Risk reduction
- Know-how stays within the company

Provide highly specific information about environmental impacts

- Consulting costs to produce a LCA study are economized
- EPD costs go down to 10%

Establish a new cost assessment perspective

- Saving potential is up to 20% of the material and energy cost

Life Cycle Information @ OHLF

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CAMPUS**
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für Innovationen

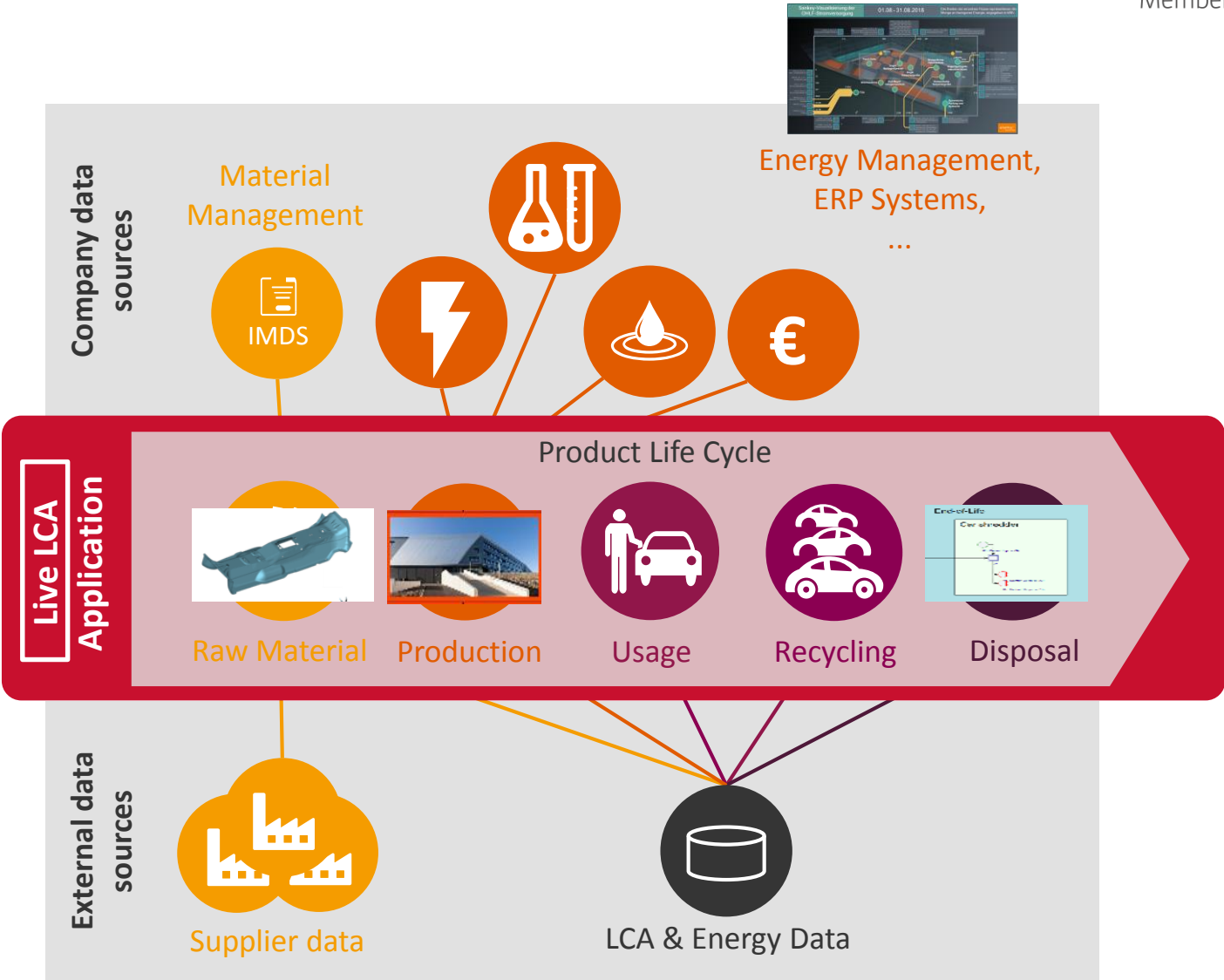
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Der LeichtbauCampus.



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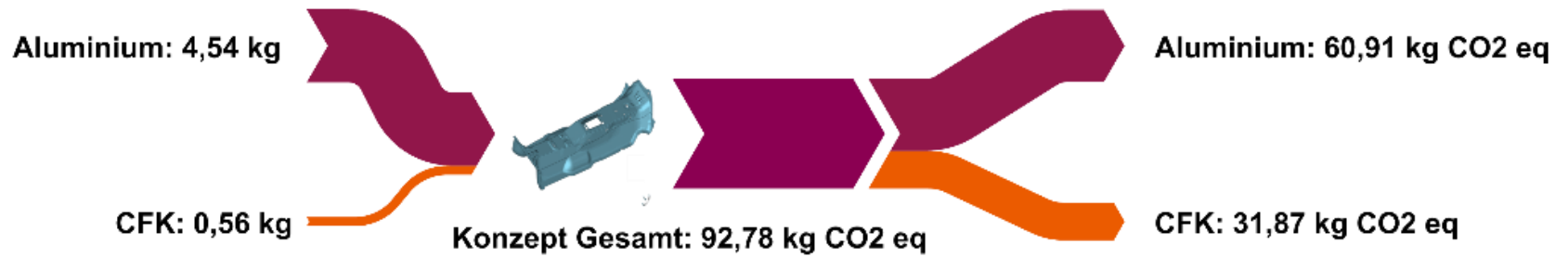


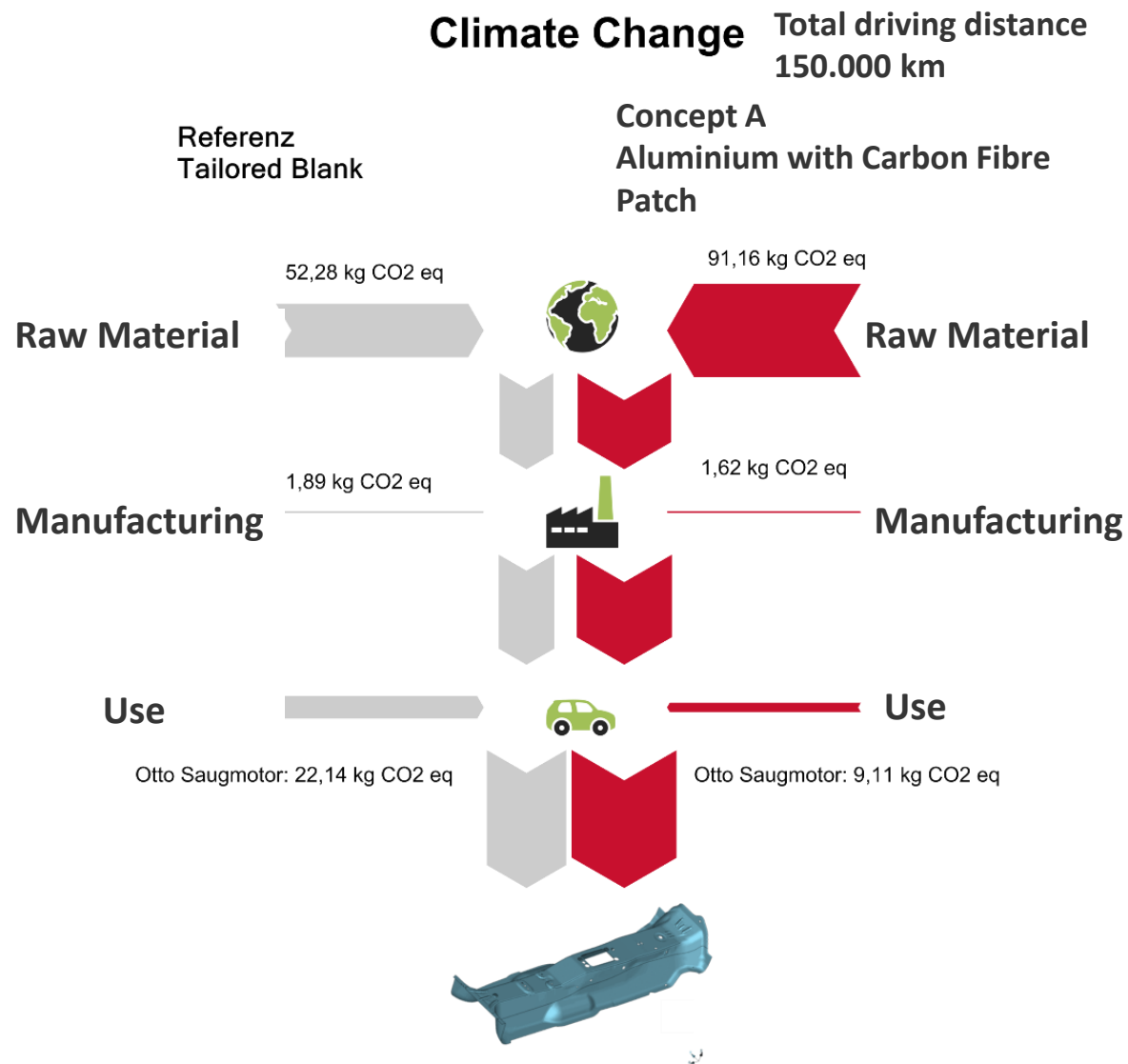
Live LCA Application Example @ OHLF



Climate Change

Concept A
Aluminium with Carbon Fibre Patch





Harmonized concepts for dealing with multi-criteria- analysis

Improved visualization for reduced complexity

Better provision of EoL information

Further automation of data access

Questions?
now or later

Andreas Genest

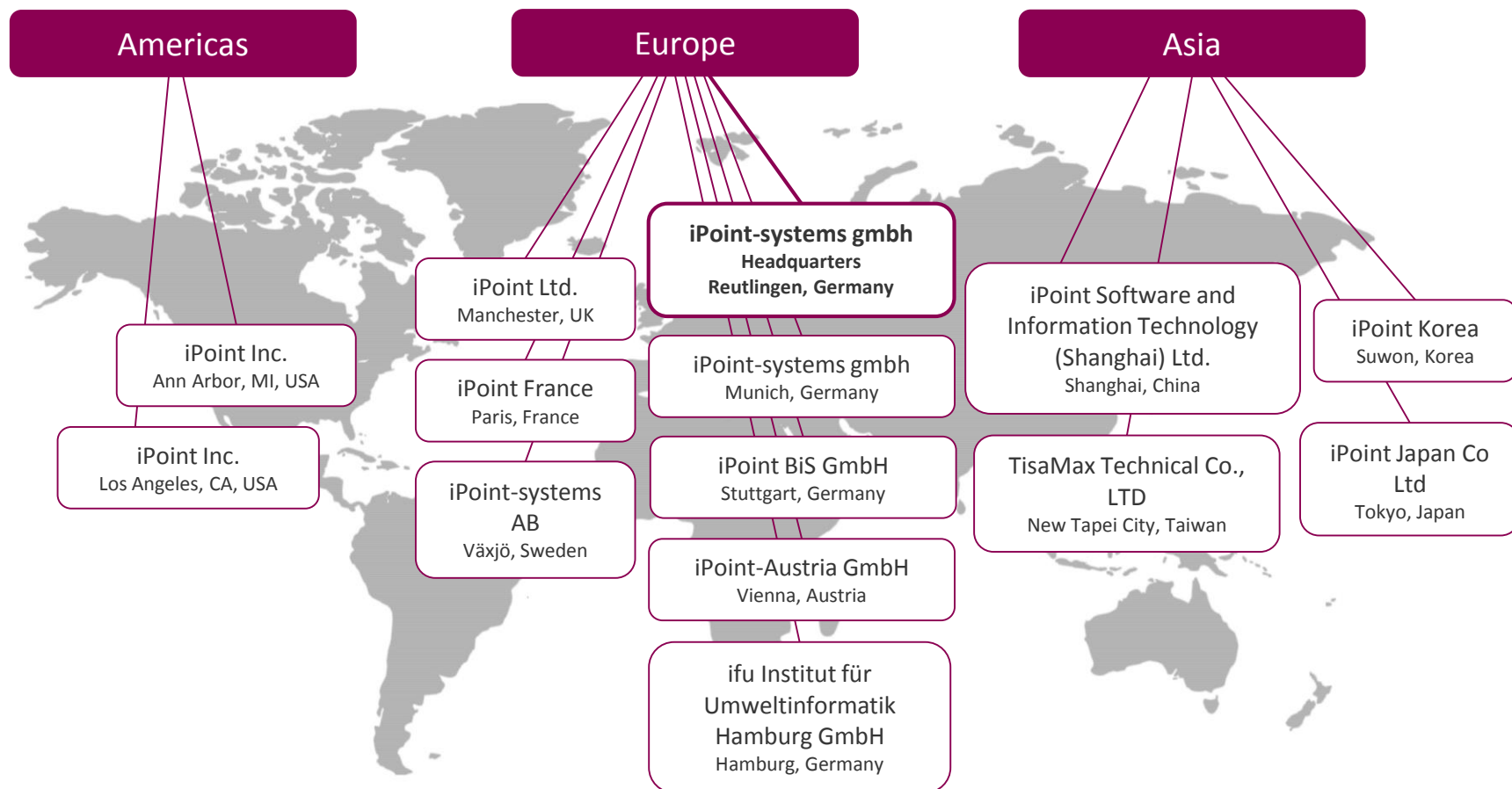
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Would you like to get the presentation?

send me an email 😊 asap



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