

PRESS RELEASE

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Fraunhofer coordinates a project on the harmonization of a transport-specific Life-Cycle Assessment (LCA) - The European project “TranSensus LCA” kicked-off in Brussels

The Fraunhofer-Institute for Structural Durability and System Reliability (LBF) and the Fraunhofer-Institute for Surface Engineering and Thin Films (IST) jointly coordinates a Support and Coordinated Action aiming at defining and harmonising a commonly accepted and applied single Life Cycle Assessment (LCA) approach for zero-emission vehicles ZEV. Both institutes brought together 44 key stakeholders along the full value chain of zero-emission vehicles covering, among others, vehicle and battery manufactures, the supply industry, energy providers and recyclers. This unique initiative is supported by the European Commission under the Horizon Europe Framework Programme and had its kick-off meeting on February 1 in Brussels with about 60 attendees.

Considering upcoming technologies leveraging emission reduction strategies, circular economy targets as well as potential social issues becomes increasingly challenging over the full life-cycle of vehicles (design and development, production, use-phase and End-of-Life) and over the supply chain

Within this context, a reliable, transparent, standardized assessment of the environmental footprint of different solutions and technologies is essential to support the transformation of our transport system towards climate-neutrality. Although all stakeholders already recognize the importance of life cycle assessment (LCA), the transport sector is still struggling to adopt LCA approaches. Standardized and comparable results are still lacking due to, among others, limitations in accessing and managing real-life data or applying non-harmonized, inconsistent modeling choices, tools and system boundaries.

Europe, the first digitally enabled circular, climate-neutral and sustainable economy

The Horizon Europe funded project TranSensus LCA therefore aims to develop a baseline for a European-wide harmonized, commonly accepted and applied single life cycle assessment (LCA) approach for zero-emission vehicles. Such a European single LCA approach is seen as a key element in achieving the Green Deal targets, making Europe the first digitally enabled circular, climate-neutral and sustainable economy. Bringing together relevant stakeholders from industry and research, an evidence- and real-life data-based LCA approach will be conceptualized and harmonized embracing

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environmental, economic and social aspects. By consensus, TranSensus LCA will enable industry, mobility providers and planners to provide sustainable products and to optimize mobility solutions as needed to combat climate change.

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Details of the project

In detail TranSensus LCA aims for

- conceptualizing and demonstrating a single, European-wide real-data LCA approach for zero-emission road transport
- harmonizing of methodologies, tools and datasets
- elaborating an ontology and framework for a European-wide LCI database
- conceptualizing the LCI data management and update along the life cycle and along the supply chain
- taking into account upcoming technologies and demands

As such, it will pave the way for LCA-based product and business development within the road transport market.

Project consortium composed of industrial partners and scientific researchers

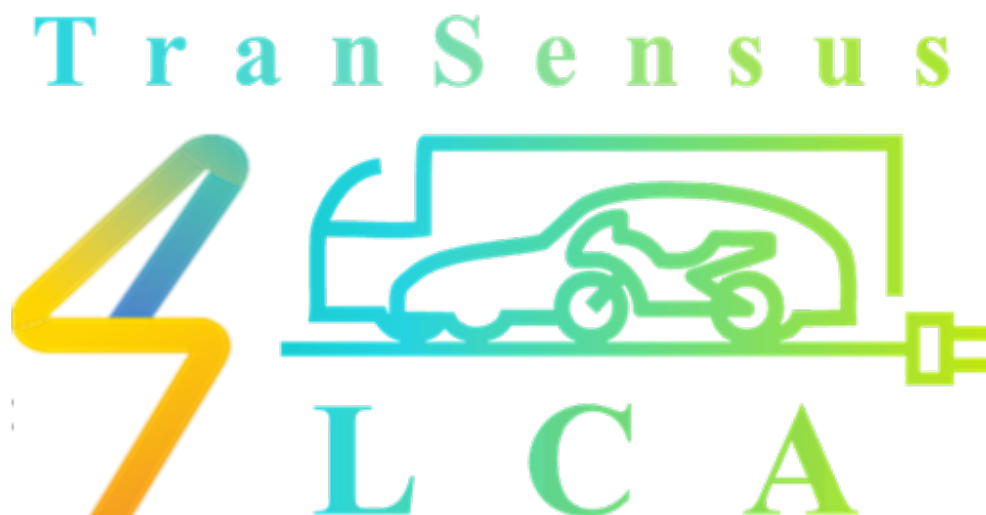
The TranSensus LCA consortium is composed of highly committed 11 industrial partners (BMW, EDF, Northvolt, Renault, Ricardo, Scania, Sphera, ST Microelectronics, Umicore, Valeo and Volkswagen) and 9 partners from research (Fraunhofer, BRGM, CEA, Uni Gent, Uni Leiden, RWTH Aachen, IVL, TU Braunschweig, Uni Bordeaux) covering the battery and vehicle value chain as well as providing the required expertise and know-how to elaborate the framework for a single European-wide LCA approach. The consortium is complemented by 24 associated partners ensuring an excellent representation of the road transport sector as well as strengthening the coverage of the relevant value chains and life cycle stages.



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About 60 representatives of the project partners met for the project kick-off in Brussels
Foto: Fraunhofer



TranSensus LCA kicked-off in Brussels will pave the way for LCA-based product and business development within the road transport market.

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Disclaimer

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Fraunhofer LBF in Darmstadt has stood for the **safety and reliability of lightweight structures** for more than 80 years. Today, with its expertise in the areas of structural durability, system reliability, vibration technology and polymer technology, the Institute provides solutions for three of the most important cross-cutting issues of the future: lightweight design, functional integration and cyberphysical mechanical engineering systems. The focus here is on solutions to social challenges such as resource efficiency and emission reduction as well as future mobility, like e-mobility and autonomous, networked driving. Comprehensive skills ranging from data acquisition in real operational field use to data analysis and data interpretation, in addition to deriving specific measures to design and improve material, component and system properties form the basis for this. Customers come from automotive and commercial vehicle construction, railway transport engineering, shipbuilding, aviation, machine and plant construction, power engineering, electrical engineering, medical engineering, and the chemical industry. They benefit from the proven expertise of 400 employees and cutting-edge technology accommodated in more than 17,900 square meters of laboratory and experimental space.

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