

Quantifying supply chain decarbonization

as a pillar for becoming a net-zero company

OVERVIEW

With the *Ambition 2039*, Mercedes-Benz committed themselves to become a carbon-neutral* company by 2039 along their entire value chain. Hence Mercedes-Benz is not only taking responsibility for emissions that occur when using their vehicles, but also for emissions that occur when producing the vehicle. A huge proportion of these emissions do not occur at Mercedes-Benz locations, but in its supply chain. To derive a realistic, yet ambitious decarbonization strategy, gaining transparency about emissions hotspots in the supply chain and quantifying possible reduction measures, is crucial. Mercedes-Benz therefore decided to use Sphera's consulting services and their detailed life cycle assessment (LCA) models and supply chain knowledge to fill this gap.

*include all greenhouse gases according to the Greenhouse Gas Protocol that are converted in CO₂-equivalents.

MERCEDES-BENZ AG



Founded in: 1926



Automotive



Stuttgart, Germany

Nearly **2.4 million** cars and more than **438,000** vans sold in 2019

173,000+ Employees

40 production sites on four continents

CHALLENGES



Missing emissions transparency
in the supply chain



Lack of reliable, detailed emissions inventories
for steel, aluminum and plastics



Lack of knowledge about the influence of renewable energy and recycled or bio-based materials and their impacts on supply chain emissions



Lack of CO₂ reductions
potentials for target setting

SOLUTION

SPHERA'S SUSTAINABILITY CONSULTING SERVICES

When looking at the supply chain of cars, it all comes down to the supply chain of the major materials. Sphera's consultants conducted a detailed CO₂-modelling of the supply chains for steel, aluminum and plastics and derived and quantified possible reduction measures. This involved alternative production routes for steel, including steel via direct reduced iron, renewable energy used in the supply chain of aluminum and plastics and, among other things, the use of secondary and bio-based materials. Wherever needed and relevant, additional environmental impacts, such as acidification, water consumption etc., have been considered.

Sphera's Sustainability Consulting services enable companies to build business value from sustainability, gain new investments and future-proof their businesses by:

- Providing insight into the concepts behind decarbonization and net zero
- Helping organizations to assess their status quo
- Developing a decarbonization roadmap suitable for a specific business model

"Sphera's sophisticated supply chain LCA models and their extensive supply chain understanding helped us gain transparency in our supply chain. Quantifying decarbonization pathways for our main materials was the missing piece of our corporate decarbonization strategy."

— Dr. Klaus Ruhland, Sustainability,
Corporate Environmental Protection and Energy Management,
Mercedes-Benz AG



RESULTS

Sphera's LCA expertise and deep supply chain knowledge enabled Mercedes-Benz to gain a detailed understanding of emissions hotspots and reduction measures in their supply chain, helping them to refine their supply chain decarbonization strategy.



Gained CO₂ transparency
in the supply chain



Developed the ability
to quantify supply chain strategies
(e.g., use of renewable energy) in
terms of decarbonization potential



Acquired the ability
to formulate, quantify
and refine CO₂
reduction targets

Are you ready to take the next step to quantify and reduce your company's supply chain emissions?

sphera.com/contact-us