

LIFE CYCLE ASSESSMENTS 2024

Implementation of life cycle assessments

We use life cycle assessments to measure how ecologically sustainable our plants are over a longer period of time, from the procurement of primary products through the use phase to their disposal.

We commissioned the Fraunhofer Institute for Building Physics (IBP) to prepare science-based life cycle greenhouse gas balances based on the ISO 14067 standard for representative machines and systems. All relevant material and energy flows that have an impact on the carbon footprint were considered. These include, for example, materials, energy, water, waste and emissions. The complete product life cycle (“cradle-to-grave”) was analyzed and the life cycle phases of material input, processing, transportation, use phase, and end of life were taken into account. The life cycle assessments were calculated according to ISO 14040/14044.

The life cycle assessments for representative machines and systems were prepared as part of the reporting for the EU Taxonomy Regulation, which was audited by an independent third party (limited assurance). The aim was to demonstrate taxonomy conformity in accordance with the criteria of the economic activity “3.6 Manufacture of other low carbon technologies.” The assessments cover 100% of the sales revenues generated with our most important products (taxonomy-aligned products).

As a result, these balances show that the use phase of our machines and systems in particular has a substantial impact on the life cycle greenhouse gas emissions. By contrast, upstream and downstream emissions caused by logistics processes (transportation), the procurement of raw materials (material input), end-of-life recycling and processing steps – both from suppliers and on site – have only a minor impact on the life cycle greenhouse gas emissions of the technologies.

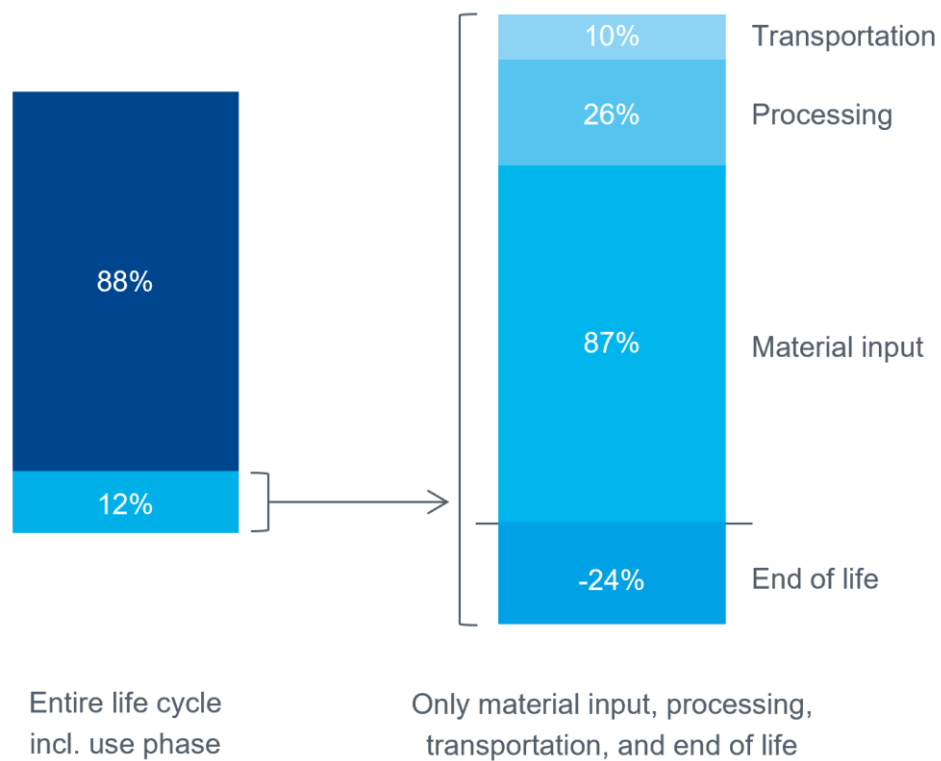
Selected results of life cycle assessments

Life cycle assessment for “EcoDryScrubber” (dry separation system for excess paint in paint shops):

- 88% of the system’s carbon footprint is generated during the use phase.
- 12% is attributable to the other phases: At 87%, the largest share of this comes from material input, 26% is attributable to processing, and 10% is generated by transportation. Recycling at the end of the service life even leads to a reduction in the system’s carbon footprint of -24%.

Life cycle assessment for “EcoDryScrubber”

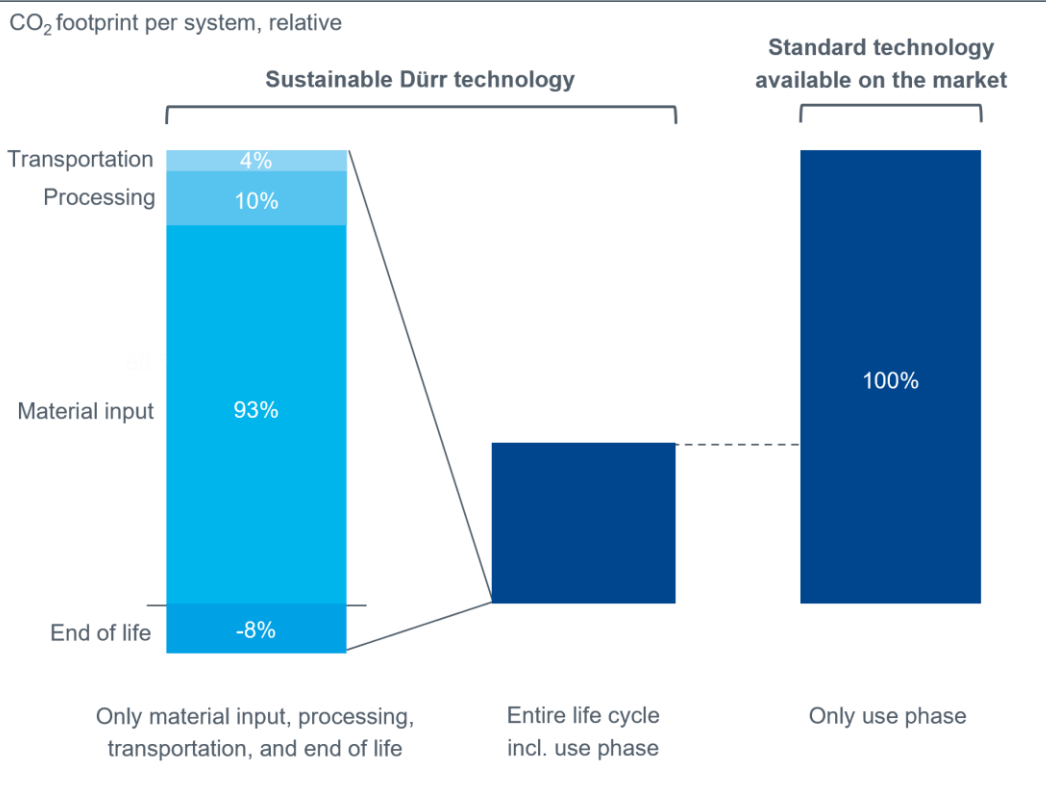
CO₂ footprint per system, relative



Life cycle assessment for “EcoPaintJet Pro” (overspray-free paint application system):

- When considering the entire life cycle of a system, the **EcoPaintJet Pro** achieves CO₂ savings of 68.6% compared to a standard reference technology available on the market.
- Even when comparing only the use phase, the **EcoPaintJet Pro** technology results in CO₂ savings of 68.6% compared to the standard reference technology available on the market.

Life cycle assessment for “EcoPaintJet Pro”

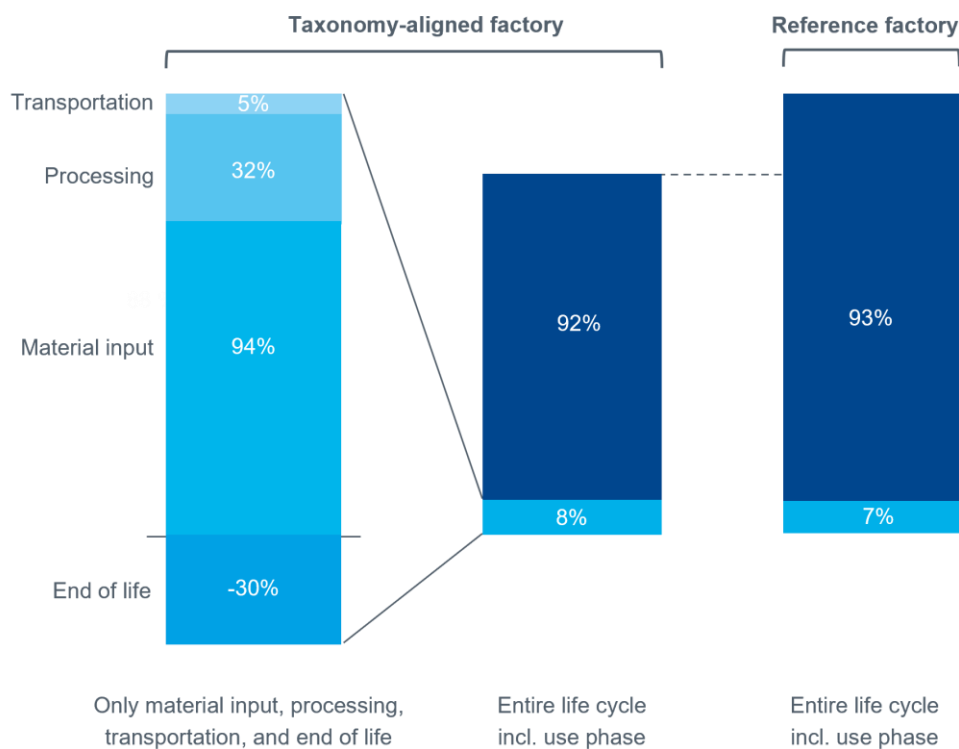


Life cycle assessment for “Factory concept with EcoQPower technology (intelligent energy network system for paint shops) vs. reference factory”:

- When comparing two identical paint shop concepts – one with and one without **EcoQPower**, both operating fully electrically with a conventional electricity mix – **EcoQPower** achieves CO₂ savings of 19.2% over the entire life cycle.
- When comparing only the use phases, the **EcoQPower** technology even results in CO₂ savings of 20.6%.

Life cycle assessment for “Factory concept with EcoQPower technology vs. reference factory”

CO₂ footprint per system, relative



About this ESG Factsheet

This document contains sustainability information that we provide voluntarily, in addition to our [Sustainability Statement 2024](#), for the benefit of interested stakeholders. It is therefore not part of the Sustainability Statement 2024 and has not been subject to third-party review. Unless otherwise stated, the information provided refers to the 2024 calendar year (January 1 to December 31, 2024) and the Dürr Group, which comprises Dürr AG and its subsidiaries. Minor discrepancies may occur in the calculation of sums and percentages due to rounding.

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