CIRCULAR TRANSITION INDICATORS
CASE STUDIES

Organization Name:
Evonik Industries AG

Industry:
Basic Materials, Chemicals

Number of employees:
32,000

Annual revenue:
€ 13.1 billion

Website:
https://corporate.evonik.com/en

> A widely accepted approach in consideration of circularity is of high importance to Evonik, especially in the context of portfolio sustainability assessment. The CTI framework and tool can serve as a complementary way of assessing our circular performance.
>
> **Dr. Volker Kerscher,**
> Sustainability Business Integration | Sustainability

Why are circular metrics interesting to your company?

Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. In our most recent materiality analysis, our stakeholders rank circular economy as one of the three most important sustainability issues for Evonik.[1] Considering the enabling character of our business model, we want to assess our contributions to circularity along the value chain in a transparent and convincing manner. Along with LCA and WBCSD's own Portfolio Sustainability Assessement (PSA), CTI offers a complementary way to assess circular performance.

Key challenges

For this pilot, we decided to assess the enabling performance of a product-application-region-combination (PARC) by comparison with a reference technology. We focused on Evonik's trademark process additive (VESTENAMER®) used for processing of recycled rubber blends in road surfaces. A reference technology that uses a different additive was selected for comparison. Key challenges in using the CTI framework and tool referred to obtaining all necessary data for the reference technology and reflecting the different performance along its life-cycle (e.g. durability may be different for the reference technology).

Solutions

Concerning data accuracy for the reference technology, we used literature and process data, relied on expert opinion or testimonials from customers. Since lifetime of product is currently not addressed in the CTI tool, we decided to focus exclusively on circularity of flows and did not include performance issues (e.g. durability of recycled asphalt) in the analysis.

Results

The assessment resulted in a circularity of rubber-modified road surfaces processed with VESTENAMER® being three times as high as the technological reference. This result confirms a similar evaluation based on Life Cycle Assessment estimations.

VESTENAMER® (white granulate) from Evonik facilitates efficient reprocessing of rubber (black granulate). Copyright Dieter Debo

[1] Evonik Sustainability Report 2019, page 41.