

A Hub for Circularity: The Center for Circular Economy at RWTH

Dr. Mohammad Chehadé

Managing Director, RWTH Center for Circular Economy

Abstract

The Center for Circular Economy (CCE) bundles the expertise of all faculties of RWTH Aachen University on sustainable circular economy. Trans- and interdisciplinary methods are developed for the process optimization of the three main areas of the CCE: sustainable product design during production, business models during product use, and material recovery during product recycling.

These methods are developed through interdisciplinary collaboration between a variety of institutes, each focusing on different phases of the life cycle or the same phases in different sectors. The different technical backgrounds and expertise of the institutes thereby enable the development of a comprehensive understanding of the Circular Economy and thus the abstraction from individual applications.

We support our partners in both understandings of the Circular Economy. First, to maximize value retention of goods by repurposing the application, refurbishing, repairing, rebuilding, or reusing them partially after their primary use. Second, to develop products, goods, and materials in such a way that the fullest possible recycling of raw materials into the production process is possible with minimal energy consumption and emissions. Only this holistic consideration of a wide range of factors can lead to product cycles being closed and alternative life cycles being compared.

Together with research, industry, politics, and the population, the CCE is developing innovative solutions for the circular value creation of the future. Moreover, the CCE brings new activities and initiatives to the partners and region.

As an example, the CCE is preparing to establish a European Hub for Circularity in the region. The core of this Hub for Circularity is based on industry symbiosis which is a well-recognized concept in the aluminum industry, which means that these activities promise relevance for AMAP partners and their operations.