

CIRCULAR TRANSITION INDICATORS

CASE STUDIES



Organization Name:
Microsoft

Industry:
Software development

Number of employees:
163,000

Annual revenue (2020):
USD \$143,015 million

Website:
<https://www.microsoft.com>



We are using CTI to unlock the circular potential of our consumer devices and packaging. The journey has been enlightening. CTI provides a detailed analysis of our circular inflows and outflows, giving us a baseline and means to quantify improvements and set targets. The data and insights help us identify key circularity levers, enabling us to make informed and meaningful improvements. CTI is versatile with the ability to measure the circularity of a single product to an entire company, providing a much-needed lens for more sustainable decision making.



Wendy Phippen,

Sr. Director, Environmental Compliance and Sustainability

Why are circular metrics interesting to your company?

CTI has proven to be instrumental in supporting Microsoft's goal to design and produce devices and packaging that can be 100% recycled by material composition. With CTI, we are able to swiftly identify the key levers that will improve circularity, including recyclability and overall recoverability of our products and their packaging at their end-of-life. In particular, the CTI assessment encouraged us to look at new ways to recover our products. Hence, we are expanding our voluntary take-back program geographically.

CTI calculates and quantifies circular performance while also providing efficient tracking of improvements over time, which is critical to ensure progress year-on-year. The online tool is user friendly and can be used at any level of the organization. Overall, CTI provides detailed insights on the necessary steps needed to improve product and packaging circularity.

Key challenges

Microsoft is working towards the ambitious target to be carbon negative by 2030. To reach this goal, we need to understand in detail the level of circularity of our products. CTI enables us to measure and set targets for our hardware business. Once the initial assessment had been carried out, a key challenge was to understand how CTI identifies and prioritizes action areas that can significantly improve the circularity of our products. As we move forward, we need to ensure that the investment and resources to improve circularity are used and allocated towards the most effective strategies to reach our overall sustainability targets.

Solutions

CTI was used to measure the circularity of our products and revealed a sizeable opportunity to increase the quantity of recycled resources in our products. We assessed 5 representative devices and their packaging: Xbox One X game console, Surface Laptop 3, Surface Pro 7, Surface Pro X and Surface Go. The CTI results, compiled by KPMG, provided us with ranked opportunities to increase the percentage of circular inflows and percentage of circular outflows for all assessed products. By prioritizing and comparing the circularity levers identified through CTI, we gained data and insights that enabled us to make informed decisions at the design stage of product development that will maximize the opportunities for improving the circular performance of our products.

Results

The insights from the CTI assessment provided a very clear picture of the areas where we need to focus to improve circularity in product design and packaging choices. We were able to identify the key levers that would have high impact in improving the circularity of the products we assessed. At the same time, we quickly understood which levers would not result in a significant improvement. Opportunities were identified that included increasing recycled content in metals and plastics (e.g. for the aluminum in our device enclosures and for the resins used in components). Other opportunities included improving product design for disassembly and repairability and elimination of coatings that inhibit recycling.