

## [CIRCULARITY INDICATORS: An Approach to Measuring Circularity: METHODOLOGY \[1\]](#)

A circular economy is a global economic model that aims to decouple economic growth and development from the consumption of finite resources. Increasingly, companies see tremendous opportunity in this model, as it not only allows them to capture additional value from their products and materials, but also to mitigate risks from material price volatility and material supply. Until now, there has been no established way of measuring how effective a company is in making the transition from 'linear' to 'circular' models, nor have there been any supporting tools. The Circularity Indicators Project aims to address this gap and has developed indicators that assess how well a product or company performs in the context of a circular economy, thereby allowing companies to estimate how advanced they are on their journey from linear to circular. The developed indexes consist of a main indicator, the Material Circularity Indicator, measuring how restorative the material flows of a product or company are, and complementary indicators that allow additional impacts and risks to be taken into account. The indicators can be used as decision-making tool for designers, but might also be used for several other purposes including internal reporting, procurement decisions and the evaluation or rating of companies. In addition to the methodology, the Circularity Indicators Project has contributed to the development of a web-based measurement system for products, providing businesses with the tools required to track their progress in delivering a circular economy based business model. The purpose of this methodology paper is to describe the thinking behind this approach, alongside a comprehensive derivation of the equations used to calculate the Material Circularity Indicator.

### **Format:**

Report

### **Length (pp):**

98

### **Year:**

2015

### **URL:**

<https://www.ellenmacarthurfoundation.org/assets/downloads/insight/Circularity-In...> [2]

### **Source:**

Ellen MacArthur Foundation

### **Type of evidence:**

- [Models/scenario building](#) [3]
- [Studies/reports](#) [4]

- [Other](#) [5]

## Sectors:

- [Manufacturing](#) [6]

## Expected changes of economic processes:

- [More recycling and use of recycled materials](#) [7]
- [More circular design](#) [8]
- [Sharing models](#) [9]

## Indirect effects on the economy:

- [Impact on value chains](#) [10]

## Environmental impacts:

- [Use of resources](#) [11]

## Time frame for impacts to materialize:

- [Not specified/not applicable](#) [12]

## Administrative level:

- [Business](#) [13]

## Method of valuation:

- [Qualitative assessment](#) [14]
- [Quantitative assessment](#) [15]

## Excel ID:

i00069



The CIRCULAR IMPACTS project has received funding from the European Union's Horizon 2020 Programme for Research and Innovation under the Grant Agreement no. 730316.

**Source URL:** <https://circular-impacts.eu/library/1294>

### Links

[1] <https://circular-impacts.eu/library/1294>

[2] [https://www.ellenmacarthurfoundation.org/assets/downloads/insight/Circularity-Indicators\\_Methodology\\_May2015.pdf](https://www.ellenmacarthurfoundation.org/assets/downloads/insight/Circularity-Indicators_Methodology_May2015.pdf)

[3] <https://circular-impacts.eu/type-evidence/modelsscenario-building>

- [4] <https://circular-impacts.eu/type-evidence/studiesreports>
- [5] <https://circular-impacts.eu/type-evidence/other>
- [6] <https://circular-impacts.eu/sectors/manufacturing>
- [7] <https://circular-impacts.eu/expected-changes-economic-processes/more-recycling-and-use-recycled-materials>
- [8] <https://circular-impacts.eu/expected-changes-economic-processes/more-circular-design>
- [9] <https://circular-impacts.eu/expected-changes-economic-processes/sharing-models>
- [10] <https://circular-impacts.eu/indirect-effects-economy/impact-value-chains>
- [11] <https://circular-impacts.eu/environmental-impacts/use-resources>
- [12] <https://circular-impacts.eu/time-frame-impacts-materialize/not-specifiednot-applicable>
- [13] <https://circular-impacts.eu/administrative-level/business>
- [14] <https://circular-impacts.eu/method-valuation/qualitative-assessment>
- [15] <https://circular-impacts.eu/method-valuation/quantitative-assessment>