The history and current applications of the circular economy concept [1]

"The challenges of balancing industrial development, environmental and human health, and economic growth in China and elsewhere in the world are drivers for recent resource use and low-carbon development strategies that include the application of the circular economy (CE) concept. A central theme of the CE concept is the valuation of materials within a closed-looped system with the aim to allow for natural resource use while reducing pollution or avoiding resource constraints and sustaining economic growth. The objectives of this study are (1) to review the history of the CE concept to provide a context for (2) a critical examination of how it is applied currently. Thematic categories are used to organize the literature review of current applications including policy instruments and approaches; value chains, material flows, and products; and technology, organizational, and social innovation. The literature review illustrates the variability in CE project success and failure over time and by region. CE successes, key challenges, and research gaps are identified. The literature review results provide useful information for researchers as well as multi-stakeholder groups who seek to define the CE concept in practical terms, and to consider potential challenges and opportunities it presents when implemented." (p. 825)

Format:

Scientific article

Author names:

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http://www.sciencedirect.com/science/article/pii/S1364032116306323 [2]

Source:

University of California

Type of evidence:

- Scientific articles [3]

Sectors:

- The economy as a whole [4]

Policy changes:

- Tax and other economic incentives [5]
- Research and innovation policy [6]
- Supporting circular economy networks [7]
- Standards and prohibitions [8]
- Information campaigns/labels [9]
- Other [10]

Expected changes of economic processes:

- Efficient use of resources [11]
- More recycling and use of recycled materials [12]

Indirect effects on the economy:

- Impact on value chains [13]

Environmental impacts:

- Use of resources [14]

Time frame for impacts to materialize:

- Not specified/not applicable [15]

Enabling factors:

- Technological development and cost of technologies [16]
- Business models and collaboration between companies in the value chain [17]
- Regulatory environment [18]

Administrative level:

- National [19]
- Regional/local [20]

Method of valuation:

- Qualitative assessment [21]
- Quantitative assessment [22]

Excel ID:

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Source URL: https://circular-impacts.eu/library/1248

Links
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