



**SUPPLY CHAIN**  
Resilience Hub

**WMG**  
THE UNIVERSITY OF WARWICK



Loughborough  
University

# Circular Economy Methodology

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# Introduction

The circular economy (CE) is gaining recognition as a solution to current environmental challenges. This system seeks to reduce waste and pollution by promoting reuse, repurpose, and recycling of resources. It represents a departure from the traditional linear economy model of take-make-dispose to a more sustainable and regenerative model that maximises the use of resources and minimises the extraction and use of finite resources. By adopting CE principles, businesses can reduce waste, increase resource efficiency, and create new business opportunities while promoting social and economic inclusion. The CE model can also help create a more sustainable and resilient economy and reduce the environmental impact of industrial production.

This report provides an overview of the CE methodology, its principles, and its potential benefits for businesses and society. It also examines the challenges and opportunities associated with transitioning to a CE model and highlights examples of CE practices suitable for various industries. By embracing this model, businesses and society can create more sustainable and regenerative economic systems.

# Overall Framework

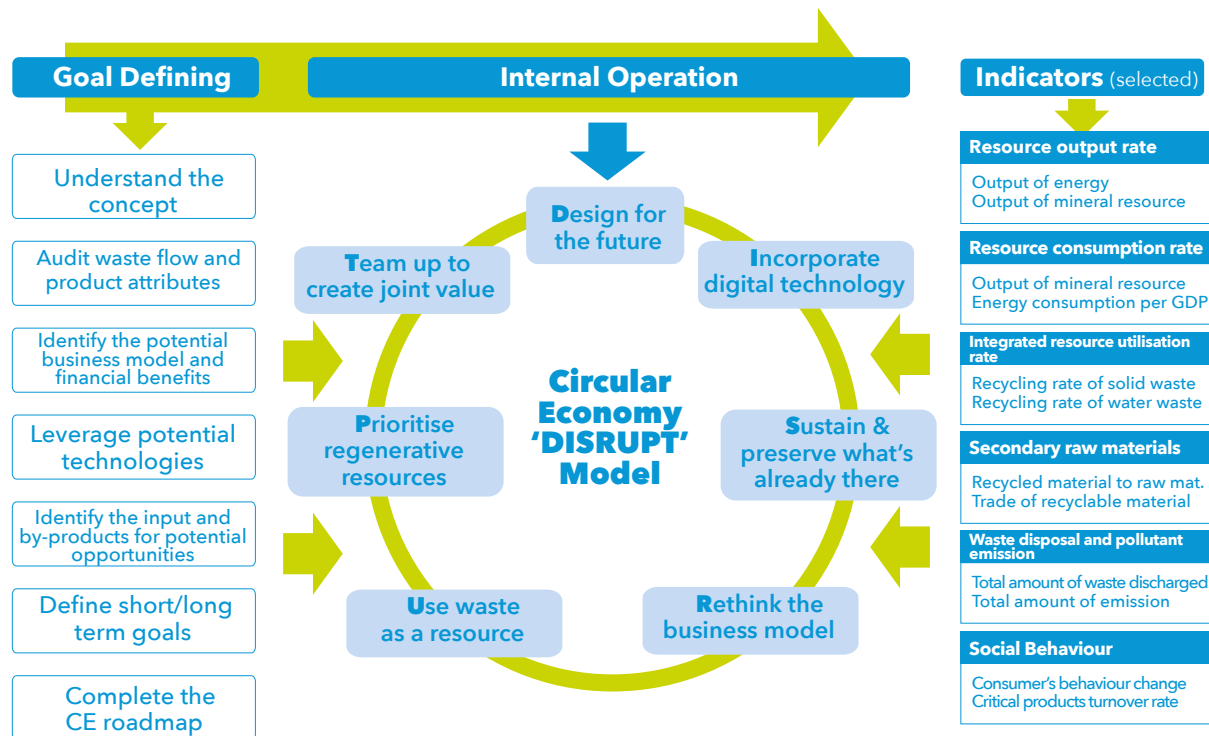
The overall framework contains more details and best practices for companies/policymakers to utilise to achieve a CE.



# Circular Economy Methodology

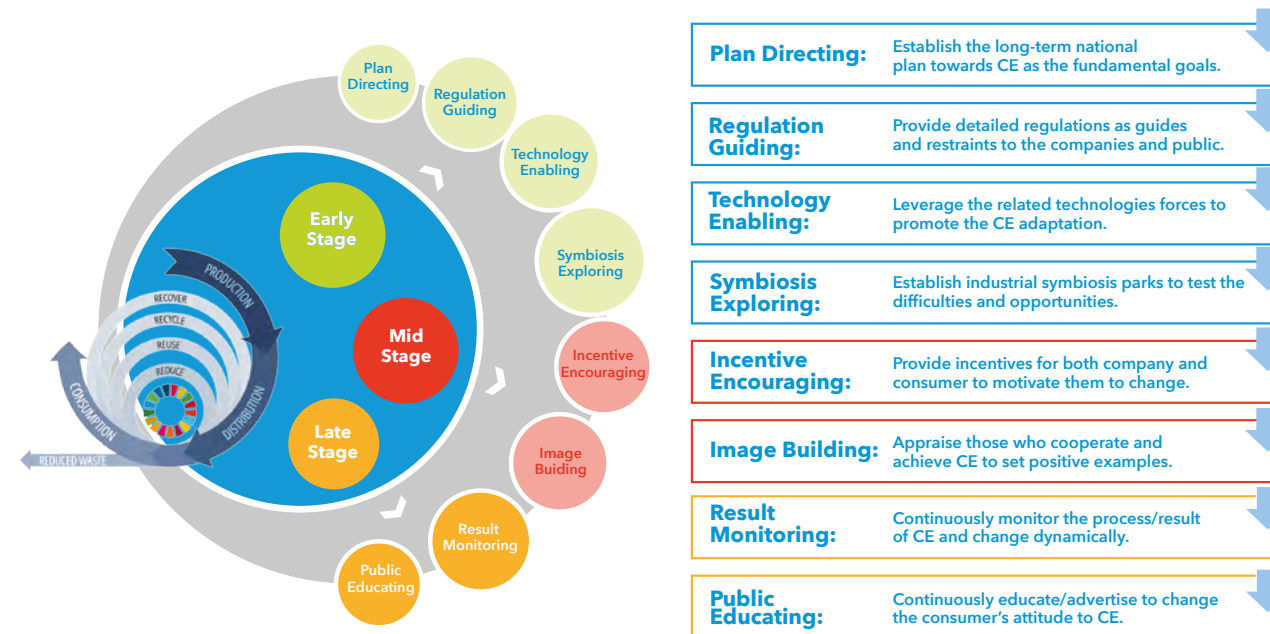
As the CE methodology aims to guide business and society, it is separated into two parts: Micro Level and Macro Level.

## Micro Level:



- ▶ The goal-defining process is a crucial first step towards achieving a CE. Start from understanding the CE concept. Then, investigate the current situation of the company, and identify how businesses and other stakeholders can establish a shared vision, create accountability, foster collaboration, encourage innovation, and drive progress towards a more sustainable and regenerative economic model. Remember to set clear and measurable goals.
- ▶ The DISRUPT Framework is beneficial for all stakeholders who wish to transition to CE. The prominence of the strategies inside the DISRUPT Framework might vary based on the product stakeholder's departmental priorities and the product's own characteristics. By including this variation, the framework may serve as a mechanism for connecting stakeholders and departments around circular initiatives.
- ▶ Unlike carbon emissions that can be quantified, the value generated by implementing initiatives underpinned by CE principles is difficult to measure. This CE methodology contains a list of indicators which can be used as monitoring points over the CE transition period. Those indicators can be adapted both at the micro (business) and macro (society) levels.

## Macro Level:



- ▶ In the early stage, policymakers must ensure the national and international regulations are underpinned by CE principles.
- ▶ Many companies believe technology adaptation is an enabler to achieving CE. By creating policies that support the use of sustainable technologies, policymakers can encourage businesses to shift towards circular business models, which can reduce waste and resource consumption while promoting economic growth.
- ▶ Explore different types of industrial symbiosis opportunities to reduce waste and then scale up successful examples of collaboration between different industries. Businesses lack success in industrial symbiosis stories and duplicate them. By testing and refining different types of symbiosis, businesses can optimise resource use, reduce waste, and create new opportunities for value creation.
  - Policymakers should also consider rewarding early adopters. Incentives such as tax breaks, grants, and subsidies can encourage businesses to invest in circular solutions, while image-building campaigns can increase the awareness of a wider society and promote circular values.
  - Continuously monitoring the result helps to measure progress towards CE goals and identify areas for improvement. It allows for the assessment of the environmental, social, and economic impacts and guides future decision-making and policy development that can support the scaling up of CE initiatives.
  - As the CE also involves the participation of end consumers, public education is crucial for achieving a CE as it helps to raise awareness among consumers about the importance of resource efficiency and waste reduction. By educating consumers on the benefits of circular business models, such as product reuse, repair, and recycling, businesses can encourage consumers to make more sustainable choices.

The Supply Chain Resilience Hub is part of WMG at the University of Warwick and supported by the WMG Centre High Value Manufacturing Catapult.

An academic department of the University of Warwick, WMG is a world leading research and education group.

WMG has internationally recognised facilities and expertise in supply chain operations and organisational transformation. Our supply chains research group applies customer responsive supply chain theory into practical solutions that generate both economic and societal value.

Collaborating with industrial partners, we seek to resolve complex business and organisational problems across agrochemicals, automotive, defence, consumer-packaged goods, retail and pharmaceuticals.



## Getting in touch:

To find out further information on how the methodology can help you, get in touch with our team at:

[scresiliencehub@warwick.ac.uk](mailto:scresiliencehub@warwick.ac.uk) OR  
[SCIP@warwick.ac.uk](mailto:SCIP@warwick.ac.uk)

[@WMGBusiness](https://twitter.com/WMGBusiness)

WMG, University of Warwick, Coventry,  
CV4 7AL, United Kingdom

The information contained in this report was correct at the time of going to print.