

## Introduction to implementing the circular economy in organisations



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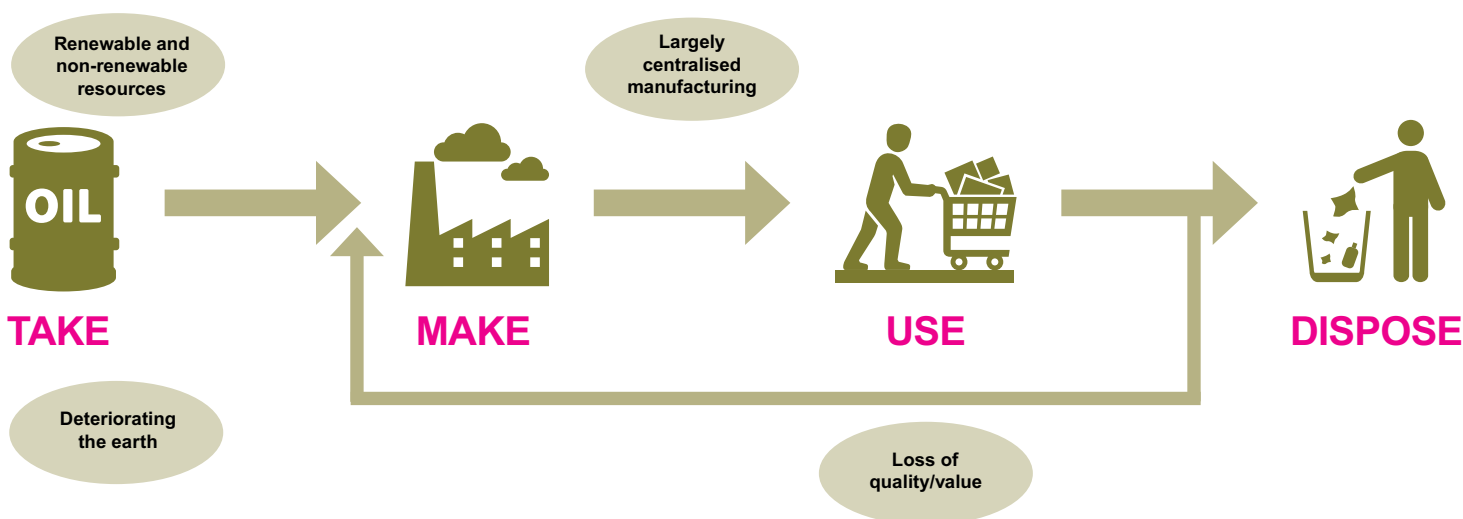
This guide is intended as a ‘first step’ for thinking about the implementation of the principles of the circular economy in your organisation. It provides a brief definition of the circular economy, along with an overview of some of the opportunities and benefits of taking this approach.

The guide also identifies six principles, based on the draft British Standard BS8001, for integrating circular economy thinking in your organisation. Each principle is outlined along with a suggested ‘first step’ for practical implementation.

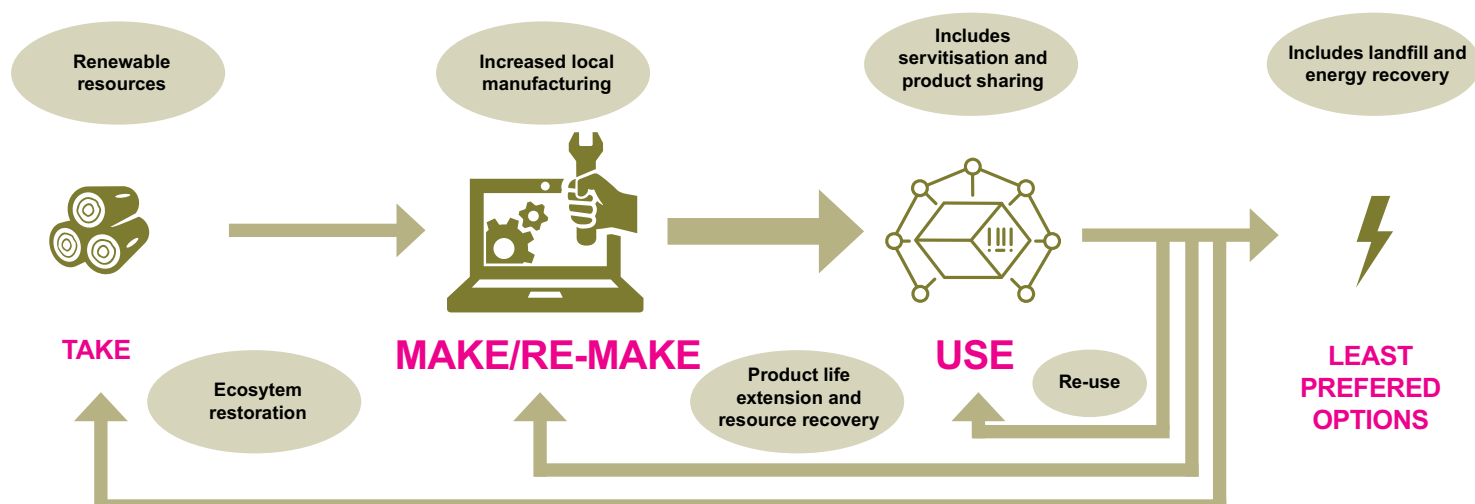
This guide is intended to be relevant for a wide range of sectors and organisations. It contains a number of case studies demonstrating how other organisations are actively pursuing a circular economy approach. Follow-up toolkits and webcasts will delve deeper into the details of particular aspects, and will explain how the circular economy concept can be applied in different contexts.

## What is the circular economy?

The traditional, or linear, economic system has largely been based on the process of **taking** raw materials from the earth, using them to **make** products which are bought and **used** by consumers, before the product is **disposed** of at the end of its useful life. Resource efficiency measures seek to reduce the amount of resources (materials, water, energy, etc) needed to make each product, and reduce the amount of waste created at the end of the product’s life by recycling materials, (accepting that there may be some loss of quality).



In contrast, the **circular economy** is a generic term for a **regenerative** economic system in which **resources** (materials, water, energy, etc) and the **value** provided by them are **retained** within the system. This is done, both in the ‘making’ and ‘using’ parts of the process, using innovative methods to maximise first-time use and subsequent uses of the material. These are outlined in the ‘Circular Economy Activities’ section on page three.

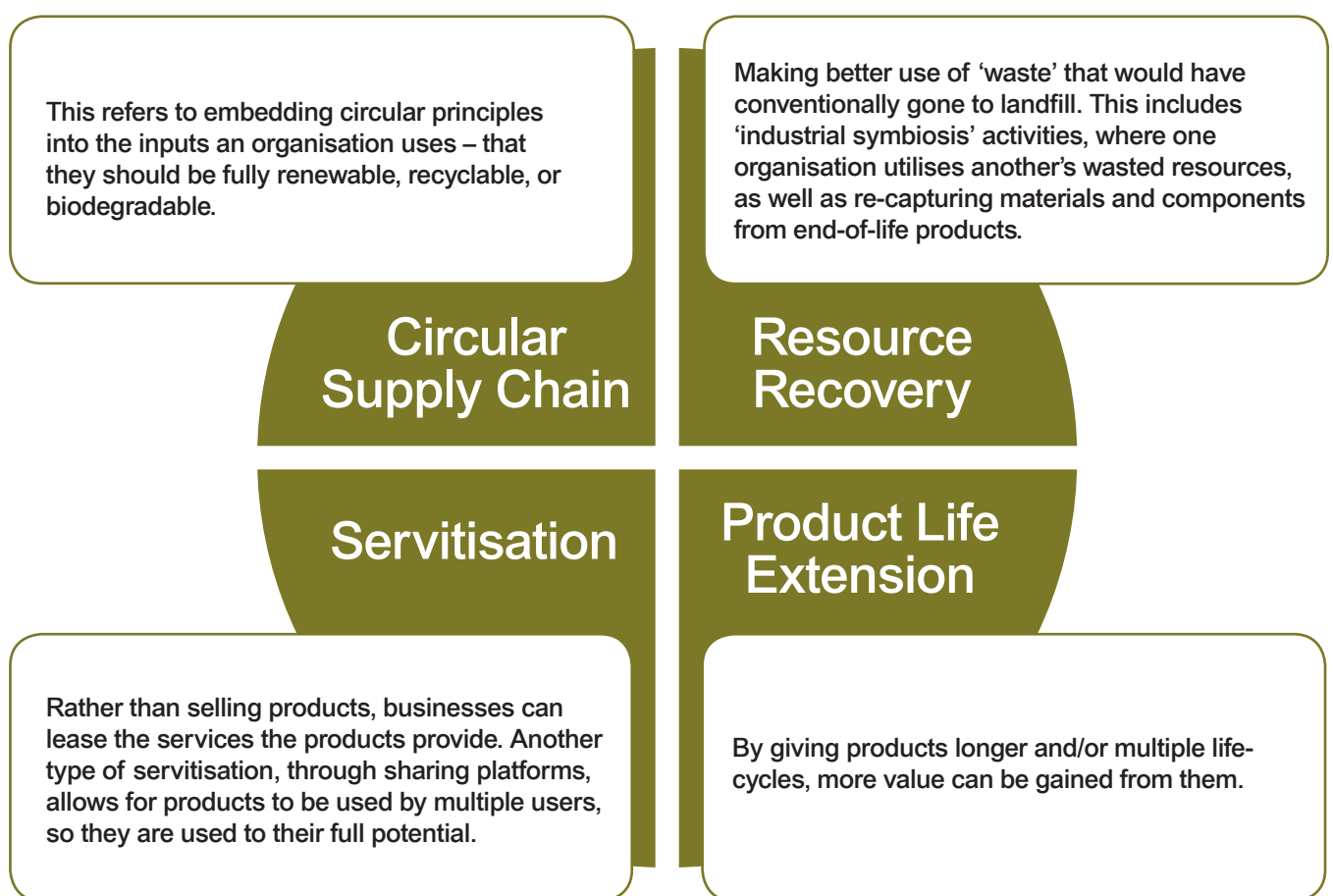


## From Resource Efficiency to Effectiveness

This requires a shift in mind-set from efficiency (doing more with less and reducing waste) to effectiveness (optimising the whole system for lasting value). This presents a significant challenge to businesses, which is why Business in the Community has developed a new programme of work on the circular economy; this will help guide our members through this transition and begin wider collaboration.

### Circular economy activities

There are that activities that could be considered in keeping with the circular economy framework; however, these can broadly be categorised into four main areas, as outlined below. We do not consider these categories to be hierarchical, and organisations should determine which activities are best suited for their own organisation.



Based on Accenture (2014)

## Some practical examples



### Case Study: Circular supply chain

The cleaning products company Ecover makes its packaging from a blend of 25% recycled plastic and 75% plant-based plastic sourced from sugarcane. This creates a high-density polyethylene, which is recyclable. Producing packaging in this way avoids the energy use and greenhouse gas emissions associated with manufacturing petroleum-based plastic.

## Huhtamaki

### Case Study: Resource recovery

Before the two organisations merged, Delta Packaging and Huhtamaki developed an innovative way to recover waste. The unavoidable trimmings from the manufacturing process for a fast service restaurant chain's carton packaging were baled and transported from Delta's factory in west Belfast to Huhtamaki in Lurgan. Here, the waste material was used to produce cup holders for the same customer. This creates a 'closed loop,' traceable and cost-effective solution, while contributing to both organisations' environmental aims.

## PHILIPS

### Case Study: Servitisation

Philips has provided lighting in a 'pay-per-lux' model to several clients, including the National Union of Students. This takes the form of a contract where Philips provides its client with an agreed amount of light for a set price, while Philips manages the lighting system and continues to retain ownership of the hardware. This provides an incentive for Philips to install lighting that is optimised for long-term use.



### Case Study: Product life extension

Habitat ReStore is a low-cost DIY store that sells unneeded new and used building supplies and home improvement materials at 50-75% of the normal retail price. Businesses and individuals donate items and materials to the store, including kitchens, bathrooms, furniture, bricks, paving, insulation, electrical goods, office furniture, and paint. Money raised from sales goes to Habitat for Humanity.

## Benefits of a circular approach

The circular economy is an opportunity to create more lasting value from the resources we use. Benefits include:

- Greater social value through job creation, and the potential for better distributed benefits of economic activity; for example, through local manufacturing enabled by new technologies
- Improving resource security by lessening dependence on depleting resources with volatile prices
- Reducing the environmental impacts associated with 'taking' natural resources and disposing of products

## Macro-economic benefits

<b>Globally</b>	\$1 trillion of material cost-savings by 2020 <sup>1</sup>
<b>Europe</b>	€1 trillion of economic benefits by 2030 <sup>2</sup>
<b>United Kingdom</b>	£29 billion of economic benefits over ten years <sup>3</sup>
<b>Northern Ireland</b>	13,000 additional jobs created by 2030 <sup>4</sup>

<sup>1</sup> Ellen MacArthur Foundation (2014) <sup>2</sup> Ellen MacArthur Foundation (2015)

<sup>3</sup> Veolia and Imperial College London (2015) <sup>4</sup> WRAP and ReNEW (2015)

## Benefits to your organisation

Embedding the foundations of a circular economy into your organisation can directly benefit the way you do business:

- **New business possibilities** by identifying opportunities for innovative new products and services
- **Risk management** by future-proofing your business against volatile resource prices
- **Lasting customer relationships** through ongoing service agreements rather than a single transaction at the point of sale

## Integrating circular economy thinking into your organisation

In order to successfully implement circular economy activities, businesses need to implement this new way of thinking across all of their organisation's activities.

The Draft British Standard BS8001, *A Framework for Implementing the Principles of the Circular Economy in Organisations*, identifies six principles (shown below) which are fundamental to developing a cohesive, long-term, circular economy strategy.

Principle	Definition	What it means	A suggested first step
<b>Systems Thinking</b>	Taking a holistic view of how decisions and activities have impacts on the wider system	A 'system' means any network of connected 'nodes' (businesses, regulations, customers, etc) all of whom play a role in a shared purpose, such as providing a particular commodity. Systems Thinking considers how the decisions that are made impact all stakeholders in the wider system.	'Map' your organisation's dependencies, the stakeholders with whom you interact, and your exchanges of value, to show your organisation's role within your wider system. This can be used to identify where circular economy initiatives can be targeted.
<b>Innovation</b>	A process of creating new thinking that results in execution and adoption	Innovation begins with identifying and analysing a challenge or an unmet need in society. Imagination is then applied to 'think outside the box' to see how the challenge could be met.	Consider what the implications of the circular economy and other sustainability concepts are for the future for your industry. Identify areas of change and new opportunities.
<b>Stewardship</b>	Managing the direct and indirect impacts of an organisation's decisions and activities across the wider system	Organisations should manage the environmental and social impacts that occur as a result of their own activity, as well as in their supply chain, in the 'use' and 'post-use' phases.	Compile a document identifying the environmental and social impacts of your products/services through different stages of their lifecycles.
<b>Collaboration</b>	Working with other stakeholders to achieve a shared objective	It is unlikely that any one organisation can individually achieve substantial progress towards a circular economy; there is a need to work with suppliers, customers, end-of-life processors, competitors, and businesses in other industries to identify the biggest opportunities for circular economy activities.	Refer to the system map you created under the 'systems thinking' principle. Consider which stakeholders you share common circular economy objectives with, and what leverage points you could collaborate on.
<b>Lasting value</b>	Keeping your products, components and materials at their highest value at all times	Rather than the traditional model of recycling, which tends to decrease the quality and value of materials through multiple lifecycles, circular economy models look to at least maintain value, eg through producing and using 'remanufactured' products.	Refer to the Circular Economy Activities diagram on page two. Which activities are you already carrying out? Are there any other possibilities that would create lasting value?
<b>Transparency</b>	Being open about decisions and activities that are relevant to increasing circular economy adoption, and communicating these in a timely and honest way	To build trust, organisations should be able to provide their stakeholders with information relevant to the circular economy. This does not necessarily mean that proprietary information needs to be disclosed.	Some examples of relevant issues include providing information on your material sources, making repair manuals for old products available, and providing information on how products should be disposed.

## References

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### Ellen MacArthur Foundation (2015), Growth Within: a circular economy vision for a competitive Europe

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### WRAP and ReNEW (2015) Job Creation in the Circular Economy – Increasing Resource Efficiency in Northern Ireland

<http://www.wrap.org.uk/sites/files/wrap/ReNEW%20CE%20Employment%20Report.pdf>

## Further support

Business in the Community has launched a new online Circular Economy Hub. This will be updated with new toolkits, webcasts, and reports. The Hub will also host a message board – a forum for the discussion of circular economy-related questions and ideas.

Please join in at: [www.bitcni.org.uk/ce](http://www.bitcni.org.uk/ce)

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