Promoting resource efficiency and the circular economy through planning

Topic resource

Planning for the climate crisis: A guide for local authorities

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Introduction

Some of the most significant environmental impacts of development arise from the carbon intensive nature of many building materials, and the waste generated by construction. Buildings and construction are responsible for 37% of global greenhouse emissions.[1] In the UK, construction, demolition and excavation account for 61% of waste generation[2] and 60% of all resource use.[3]

One approach to reducing the waste and carbon emissions from construction is through the circular economy. It is called 'circular' because it seeks to challenge the mainstream linear view of economic activity that follows a 'produce-use-dispose' pattern. Instead, it 'promotes using products and materials for as long as possible through local maintenance, repair, reuse, refurbishment, remanufacturing, and recycling, as well as lowering consumption and reducing resource use.'[4]

This topic guide explores how local authorities can use the planning system to encourage developers to apply the principles of the circular economy. It should be read alongside other topic guides in this series, including those on carbon literate planning, and accelerating the delivery of net zero buildings. These can be found here.

Policy Context

In its definition of sustainable development, the National Planning Policy Framework (NPPF) states that the planning system has a role to play in 'making effective use of land', 'using natural resources prudently', and 'minimising waste and pollution',[5] all of which align with the notion of the circular economy. Paragraph 161 of the framework states that planning should 'encourage the reuse of existing resources, including the conversion of existing buildings'.[6] However, it is not directive in how this should be achieved, leaving space for local authorities to set criteria locally through development plans.

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Figure 1: Traditional construction materials such as concrete and steel are carbon intensive.
Source: iSky Media / Shutterstock.com

Key principles

Some of the ways in which circular economy principles can be applied to construction and development include:

- Reducing the use of materials, particularly carbon intensive ones, and ensuring they are sourced from sustainable sources.
- Designing buildings so that they use resources, such as energy and water, efficiently through their lifetime.
- Reducing, and responsibly managing, waste arising from construction.
- Consider using planning policy to set a presumption against demolition, to encourage the reuse and retrofit of existing buildings as a first priority.
- Futureproofing development by making sure places and buildings are designed so they can be maintained and adapted in future without significant retrofit.
- Designing sites to support and regenerate natural ecosystems.

Applying these principles can also create secondary benefits. For example, reducing waste on construction sites also reduces air pollution and noise impacts because there are less vehicle movements. Making efficient use of materials also reduces construction costs.

Circular economy principles can also be applied to the use of land. This would encourage the reuse of land and encourage mixed use developments that support complete, compact and connected communities, and are resilient in the long term.

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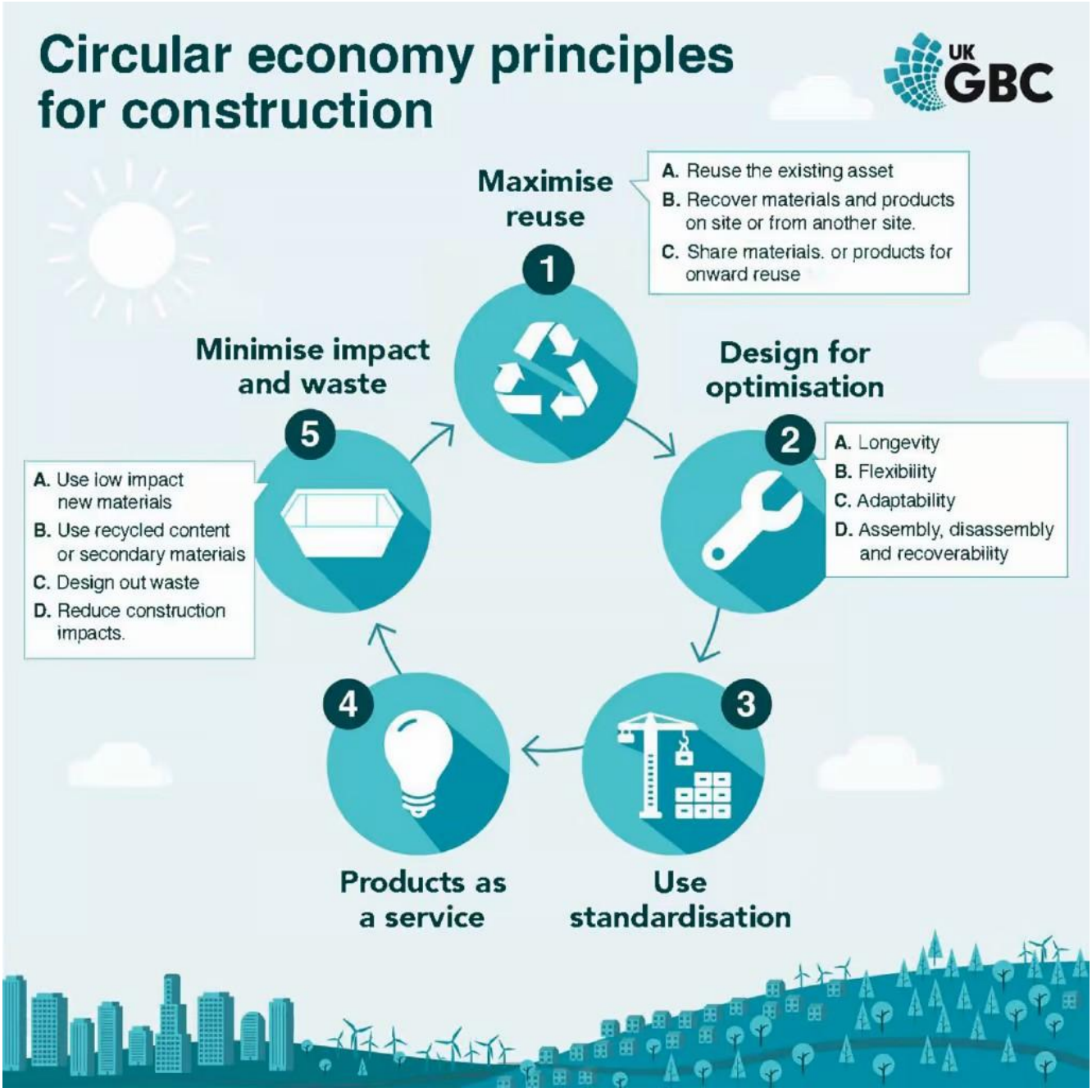

Figure 2: Circular economy principles for construction. Source: UK Green Building Council, Circular Economy Guidance for Construction Clients

Box 1: Case Study - Supporting the circular economy in the London Plan

Policy SI7 in the London Plan includes key principles and citywide targets relating to the circular economy, recognising the potential for individual developments to help achieve these. The policy requires applications of over 150 residential units to submit a circular economy statement to explain the design approach taken to reduce material demands, and how materials will be reduced or recycled.

Guidance to accompany this policy explains six circular economy principles for construction and design of buildings and explains how these can be applied in practice. These are:

1. building in layers – ensuring that different parts of the building are accessible and can be maintained and replaced where necessary
2. designing out waste – ensuring that waste reduction is planned in from project inception to completion, including consideration of standardised components, modular build, and reuse of secondary products and materials
3. designing for longevity
4. designing for adaptability or flexibility
5. designing for disassembly
6. using systems, elements or materials that can be reused and recycled.

Applicants must also 'robustly' investigate options to retain existing buildings

Find out more:
The London Plan. Mayor of London, March 2021. https://www.london.gov.uk/programmes-strategies/planning/london-plan/london-plan-2021
London Plan Guidance: Circular Economy Statements. Greater London Authority, March 2022. https://www.london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan-guidance/circular-economy-statement-guidance

Figure 3: Retaining materials reduces the carbon impact of development. Source: Paul Maguire / Shutterstock.com

Good practice for plan making

The Development Plan provides an opportunity to set expectations for developers to consider circular economy principles and demonstrate how these have been applied through the scheme design, construction and maintenance. Any requirements should be proportionate to the scale of the development.

Planning authorities should also check their Minerals and Waste Plans and align policies with this document. The National Planning Policy for Waste outlines a waste hierarchy, which should underpin policies on waste management.

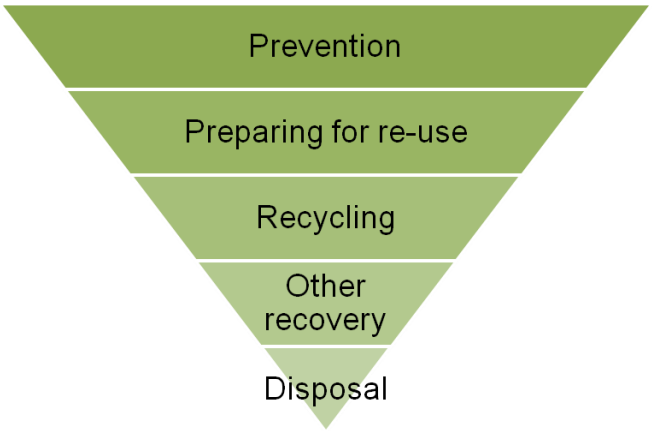

Figure 5: The Waste Hierarchy. Image Source: The National Planning Policy for Waste, DCLG, 2014.

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Box 2: Case Study - Lewes District Council Circular Economy Technical Advice Note

Lewes District Council has published an advice note for planning applicants on how they can reduce the environmental impact of their proposals by applying circular economy principles. It identifies three core principles that can be applied to all development which are:

1. Responsible sourcing of materials
2. Designing for circularity
3. Managing waste.

The advice note also provides an overview of how developers can employ strategies that allow for adaptability of buildings, allowing their lifespan to be extended and ensure the building can be deconstructed at the end of its lifespan, in a way that means materials can be reused or recycled.

Author: Lewes District Council
Date: February 2021
Link: https://www.lewes-eastbourne.gov.uk/media/2408/Circular-Economy-Technical-Advice-Note/pdf/Circular_Economy_

Policies in local plans, spatial development strategies and design guidance in supplementary plans should look to secure the following:

- Require an assessment or statement on how developments will use resources efficiently and reduce waste. This may be suitable for developments only over a certain size threshold – e.g. major development.
- Promote the refurbishment or reuse of existing buildings wherever possible, encouraging the 'adaptive reuse' of buildings and setting a high bar for the demolition of buildings, requiring evidence that they cannot be reused effectively to justify demolition.
- Set design policy that asks applications to consider the lifespan of the building or site beyond its intended use, ensuring it is designed to be flexible and adaptable to future needs.

- Secure the efficient management of the operational needs of development, for example by setting clear requirements on waste and recycling facilities, and the provision of outdoor space that allows for composting and rainwater harvesting.
- Require developers to provide a waste management plan explaining how excavation, demolition and construction waste will be managed sustainably.
- Promote the use of sustainable materials, for example through encouraging the use of recognised standards such as BREEAM.[7]

If it is not possible to secure development plan policy on the circular economy, the principles could be promoted through other planning documents such as a Supplementary Planning Document, or a planning advice note.

Decision making

If there are no specific policies in your development plan on the circular economy or resource efficiency, you can still encourage good practice through development management. This could be through:

- Encouraging the design of non-residential buildings to allow for internal layouts to change to accommodate different uses over time.
- Checking that residential development has appropriate accessibility requirements and is designed to meet the needs or a range of different users. Ensuring housing is accessible means it can accommodate people with different needs without the need to make adjustments in future.
- Make sure that adequate facilities are provided for recycling and bin storage.
- Ensure that other resource requirements such as energy and water efficiency standards are met.
- Encourage developers to use industry standards that promote sustainable construction. See our resources on Accelerating the delivery of net zero buildings for more information.

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Horizon scanning

The government established a Circular Economy Taskforce in 2024, which is tasked to develop a Circular Economy Strategy for England. Construction is listed as one of five priority sectors for the strategy, which is due to be published in 2025.

Further Resources

Ellen Macarthur Foundation

Background research and guidance on the circular economy, across all areas of the economy. Link: https://www.ellenmacarthurfoundation.org/

Local Partnerships

Local Partnerships is a public sector delivery partner that supports local authorities across England and Wales in embedding circular economy and resource efficiency principles into their operations. Link: https://localpartnerships.gov.uk/

UK Green Building Council

Information, advice and guidance on the circular economy, aimed at the development sector. https://ukgbc.org/our-work/topics/circular-economy/

References

[1] *Global Status Report for Buildings and Construction.* UN Environment Programme, 2024. https://globalabc.org/resources/publications/global-status-report-buildings-and-construction-beyond-foundations

[2] *UK Statistics on Waste.* DEFRA, 2024. https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste

[3] UK Green Building Council https://ukgbc.org/our-work/resource-use

[4] *The circular economy and sustainable manufacturing.* UK Parliament, 2025. https://post.parliament.uk/the-circular-economy-and-sustainable-manufacturing/

[5] *National Planning Policy Framework.* MHCLG, December 2024. https://www.gov.uk/government/publications/national-planning-policy-framework--2 (Paragraph 8c)

[6] Ibid.

[7] Find out more about BREEAM building standards here: https://breeam.com/standards

Cover image: Residential area with buildings using timber. Image source: Pixel to the People / Shutterstock.com
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