

Sharing is Caring

A provocation by *Future Places Studio*, exploring what circularity means on a strategic scale and how it could benefit the construction industry.

We are actively looking for partners to work with us on this research.

If interested, contact
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What if we designed buildings that can be wholly or partially dismantled and reconfigured? Where individual components can be returned to the supplier and reused again. Where waste becomes a valuable resource, and end-of-life products are remanufactured and granted a new lease of life.

Circularity is a simple concept; instead of discarding a product at the end of its life, it is fed back into the supply chain as a renewable resource. In small everyday ways, we all take part in circular systems when we buy second-hand, car share, compost and recycle. We know it is good for people, the economy and the planet. Win-win-win!

But what does circularity actually mean on a strategic scale? And how could the construction industry benefit?

400 million tonnes of materials are used by the UK construction industry annually¹, which makes it the largest consumer of natural resources in the country. Moreover, 54% of demolition materials go to landfill² at a huge cost to the environment, society, and the developer. In a world of finite resources, we must change the established take-make-waste model to preserve our natural assets and create cost effective solutions that allow us to live within planetary boundaries.

¹ Supply Chain Sustainability School

² From Principles to Practices: First Steps Towards a Circular Built Environment, ARUP and Ellen MacArthur Foundation, 2018

Technical and logistical issues paired with a throwaway culture has long stood in the way of systemic change. Those dabbling in circularity include mega-corporations with the capacity for expensive pilot programmes, and innovative disruptors with sustainability thinking at their core; IKEA has pledged to go fully circular by 2030, and Patagonia has designed garments for life since 2005. However, these are isolated organisational loops, and to optimise the benefits of circularity, it needs to be implemented strategically and systemically, across industry sectors and administrative boundaries.

Collaborative consumption – the sharing of assets – is one of the core tenets of circularity. This requires a culture change in how we think about the products we own and the buildings we inhabit. What may seem like a fringe concept is sure to become mainstream as people and businesses increasingly seek out ethical and environmentally responsible products. And with new and emerging technologies, we have a phenomenal opportunity to produce building components and products with lifetime guarantees, that can be returned and reused, repaired or remanufactured, by far outliving consumers.

The circular model releases an abundance of resources without the environmental degradation associated with new production. By retaining the intrinsic value of materials, products and whole buildings, they can be kept in use for longer, reducing waste and the cost of construction. First and foremost, a transition to a circular model relies on a change

of perspective where the construction industry and society at large adopt a circular mindset of sharing and reusing.

The ambition for this research project is to raise awareness about circularity and what it means for built environment professionals and the everyday person, and to define a framework for change for the construction industry.

Our approach would be to:

- 01 Interview and conduct surveys with built environment professionals to review current industry practices and perceptions around circularity.
- 02 Identify challenges around circular working.
- 03 Learn from exemplar international case studies.
- 04 Explore new technologies and processes that enable closed loop systems.
- 05 Outline required policy changes.
- 06 Draft a framework for change.
- 07 Test the framework with the industry.

The aim is to undertake this research during summer 2023. The final output will be a digital report (with optional hard copy format) released in autumn 2023.

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