# UK construction industry’s shift towards circularity gains momentum with environmental and economic potential



The UK construction sector stands at a pivotal moment in its environmental impact and future sustainability. Responsible for over 60% of the nation’s waste and half of all raw material extraction, it is the single largest contributor to the UK’s throwaway economy. Current government ambitions to deliver 1.5 million new homes risk escalating carbon-intensive building practices, potentially breaching the country’s legally binding carbon budgets while depleting finite natural resources. Critics argue that without a radical shift, the construction industry will continue to fuel waste and emissions at an unsustainable rate.

A promising alternative lies in embracing circularity: a systemic approach that seeks to keep products, buildings, and materials at their highest value for as long as possible. This means prioritising reuse, refurbishment, remanufacturing, and recycling over extraction and demolition. Unlike incremental efforts focusing narrowly on recycling or supply chain tweaks, true circularity requires rethinking the fabric of cities and the lifecycle of infrastructure. It demands a fundamental revaluation of resources and construction methods, addressing obstacles such as the use of adhesives and wet trades that hinder material reuse on site.

The scale of opportunity is substantial. Take London as a case in point: adopting circular economy principles could retain up to 13.8 million tonnes of materials across the next decade, cutting the city’s greenhouse gas emissions by roughly 3.6% of the UK’s total and unlocking an economic value estimated at £1.25 billion. This echoes findings from industry groups like Mace, which advocate for London to become a global leader in circular construction, championing the environmental and financial benefits of such a transition. The UK produces so much construction waste annually that it could fill the River Thames from Imperial Wharf to the Thames Barrier, underscoring the imperative to shift course.

Urban mining—recovering valuable materials from existing buildings and infrastructure—is emerging as a critical component of this transition. By reclaiming steel, timber, concrete, and other resources, the construction industry can reduce dependence on primary raw materials, lower carbon emissions, and minimise landfill waste. Integrating urban mining practices into standard construction workflows supports the broader circular economy vision by embedding reuse from the ground up, rather than treating it as an afterthought.

Several pioneering projects and initiatives demonstrate circularity’s practical viability. For instance, PLP Architecture’s office fit-out in East London utilised 92% reused materials, achieving a 75% reduction in embodied carbon compared to conventional designs while being 68% more cost-effective. Meanwhile, take-back schemes by suppliers such as Saint-Gobain and innovative reuse projects led by collectives like Rotor in Brussels are proving new business models that prioritise material salvage and redistribution on a large scale.

Despite growing momentum, systemic barriers remain. Current policies often reinforce the extractive ‘take-make-waste’ model, with little regulation on embodied carbon or incentives for reuse. The fragmented nature of procurement and the absence of clear risk frameworks create hurdles for widespread adoption of circular practices. Industry leaders have called for government intervention through procurement reform, tax incentives, and regulatory clarity to turn circularity from niche initiatives into mainstream practice.

The government’s Circular Economy Taskforce presents a critical opportunity to embed these upstream solutions in national policy. Its forthcoming ten-year strategy could make reuse the default in construction, complementing downstream recycling efforts and fostering design that enables future reuse. Failure to seize this moment risks perpetuating another decade of marginal progress and missed environmental targets.

Construction experts and architects are ready to lead this change. Campaigns such as AJ’s RetroFirst and Don’t Waste Buildings have helped mainstream the circular conversation in the UK, while networks like UK Architects Declare continue to advocate for systemic shifts. At a recent Circularity Catalyst event, industry stakeholders highlighted the urgent need for aligned policy and market signals to scale up circular construction.

Looking ahead, the sector’s transition to circularity promises multiple benefits beyond emissions reductions. It can stimulate economic growth through increased efficiency and innovation, develop green skills across the workforce, and enhance the resilience of supply chains amid geopolitical uncertainties. Retrofits and reuse can also address pressing social needs by revitalising neglected high streets and vacant buildings, creating homes and jobs without the carbon cost of new construction.

Ultimately, circularity is not a constraint but a transformative opportunity—one that requires government support to move from promise to practice. As Zoe Watson, trustee of UK Architects Declare, emphasised ahead of the sector-wide event A Circular Revolution in London, “The built environment is not waiting for permission – it is ready to lead.” Achieving the rapid, systemic change demanded by the climate crisis hinges on policy frameworks that elevate circular principles from aspiration to the new normal in UK construction.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal), [[3]](https://ukgbc.org/our-work/resource-use/), [[7]](https://www.edie.net/report-uks-construction-sector-wont-reach-net-zero-without-circular-economy-focus/)
* Paragraph 2 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)
* Paragraph 3 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal), [[5]](https://www.macegroup.com/news/mace-calls-for-london-to-become-the-circularity-capital-of-the-world/)
* Paragraph 4 – [[2]](https://www.technal.com/en/uk/News/news/embracing-circularity-the-future-of-uk-construction/)
* Paragraph 5 – [[4]](https://www.wallpaper.com/architecture/plp-architecture-circular-office-design-london-uk), [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)
* Paragraph 6 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)
* Paragraph 7 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)
* Paragraph 8 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal), [[3]](https://ukgbc.org/our-work/resource-use/), [[7]](https://www.edie.net/report-uks-construction-sector-wont-reach-net-zero-without-circular-economy-focus/)
* Paragraph 9 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)
* Paragraph 10 – [[1]](https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal)

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## Bibliography

1. <https://www.architectsjournal.co.uk/news/opinion/why-circularity-must-become-the-new-normal> - Please view link - unable to able to access data
2. <https://www.technal.com/en/uk/News/news/embracing-circularity-the-future-of-uk-construction/> - This article discusses the role of urban mining in promoting sustainable construction practices within the UK. It highlights how recovering valuable materials from existing buildings and infrastructure can reduce dependence on primary resources, lower carbon emissions, and minimise waste. The piece also emphasises the importance of incorporating urban mining into the construction industry to support the transition towards a circular economy, where materials are recycled and reused to minimise environmental impact.
3. <https://ukgbc.org/our-work/resource-use/> - The UK Green Building Council (UKGBC) explores the significance of adopting circular economy principles in the built environment. The article notes that construction, demolition, and excavation account for 60% of material use and waste generation in the UK. It advocates for a shift from the traditional linear economy to a circular model to address climate and nature crises, highlighting the potential benefits of resource efficiency and waste reduction in the construction sector.
4. <https://www.wallpaper.com/architecture/plp-architecture-circular-office-design-london-uk> - This article showcases PLP Architecture's innovative office fit-out in East London's White Chapel Building, which utilised 92% reused materials. The project achieved a 75% reduction in embodied carbon compared to traditional office designs, saving 175.78 tonnes of CO₂. Additionally, the fit-out was 68% more cost-effective than comparable conventional projects. The article highlights the potential of circular design in creating sustainable and cost-efficient office spaces.
5. <https://www.macegroup.com/news/mace-calls-for-london-to-become-the-circularity-capital-of-the-world/> - Mace Group advocates for London to become the global leader in circular construction. The article presents findings that over the next decade, adopting circular economy principles could save 13.8 million tonnes of construction waste in Greater London, valued at £1.25 billion. This approach could also reduce CO₂ emissions by 11 million tonnes, equivalent to 3.5% of the UK's annual emissions. The piece underscores the economic and environmental benefits of embracing circularity in construction.
6. <https://www.ramboll.com/en-gb/insights/decarbonise-for-net-zero/circular-economy-8-actions-to-cut-60-co2-in-the-buildings-sector> - Ramboll outlines eight circular economy actions aimed at reducing CO₂ emissions in the building sector by up to 60% by 2050. These actions include reducing the use of steel and concrete, reusing disassembled components, designing buildings for disassembly, using timber as a structural material, adopting climate-friendly cement, optimising space usage, recycling cement from demolition waste, and renovating existing buildings instead of demolishing them. The article provides a comprehensive strategy for achieving significant emission reductions in the construction industry.
7. <https://www.edie.net/report-uks-construction-sector-wont-reach-net-zero-without-circular-economy-focus/> - A report from Green Alliance highlights that the UK's construction sector could reduce its emissions by two-thirds within 12 years by cutting its use of raw materials. The article notes that in 2018, construction, demolition, and excavation generated almost two-thirds (62%) of the country's waste. It emphasises the need for a circular economy approach to achieve net-zero emissions by 2050, focusing on material efficiency, reuse, and sustainable procurement.