

The demand for net zero carbon and circular construction solutions is growing, help us make it the norm by including construction in the EU Circular Economy Act.

The construction industry has great potential for decarbonisation. Indeed, with investments in the sector reaching €1,683 billion in 2023, construction provides 18 million direct jobs and contributes 11% of the EU's GDP, making it the largest industry in the European Union (EU). As the European Union aims to promote innovative and sustainable processes and products to deliver circular construction, this paper looks at the use, reuse and recycling of construction products and the crucial phase of building design ahead of the 2026 **EU Circular Economy Act**.

Currently, construction is responsible for nearly 40% of our CO₂ emissions and it is estimated that only 40% of Construction and Demolition Waste (CDW) undergo recycling or reuse. The construction industry already has the **highest share of professionals with green transition skills** and developing circular construction can transform the industry into one that actively contributes to the sustainable future of our built environment. **Circular construction with a business case can help us achieve our climate objectives whilst delivering economic growth and meaningful, local jobs.**

To achieve these goals, circular business models must consider the costs and benefits across the entire life cycle. **Whole Life Cycle Assessment (WLCA)** is one of the best ways in which designers may analyse the environmental and social impacts of the different phases of a building's life cycle: procurement, construction, operation, improved maintenance, reuse/recycling, and deconstruction. A proactive 'design for reuse and for recycling' approach ensures that buildings and their components are conceived with end-of-life scenarios in mind, facilitating easier disassembly, material recovery, and subsequent reuse or recycling. The European Commission (EC) endorses this approach through its Level(s) initiative, which offers a common EU framework of core sustainability indicators for buildings. The construction industry is advanced in offering a material neutral and consistent regulatory framework to assess environmental sustainability thanks to robust methodologies for the environmental declaration at product level (the EN 15804), building level (EN 15978) and clear legislative requirements via the Energy Performance of Buildings Directive (2024/1275).

To enhance circularity of buildings and construction, cooperation will be required along the entire value chain, including data and information sharing about products, components and buildings. Digital Product Passports (DPPs) will play an important role in this circular transition.

Circularity potential of construction products should follow a holistic approach that considers the generally long service life of construction products. The objective of any regulation and directive shall promote keeping the materials in the loop whilst minimising input, output and energy as equally important factors.

Decision-makers shall be reminded that construction products are designed to endure for decades and withstand harsh conditions - far more than consumer goods & packaging for instance. As a result, the regulatory approach must account for the complexities of construction value chains.

While the transition to a circular economy within the construction ecosystem would significantly impact industry operations, this will depend on customer demand and their willingness to pay for those new buildings/products. The potential interest/readiness of customers to invest in products designed to be reused still needs to be assessed. While the industry is working on such solutions, broader adoption will likely require stronger economic or policy-driven incentives (note: for some products, imposing a mandatory recycling obligation may lead to more GHG emissions than using virgin material, and would also require an open loop approach between value chains).

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The industry requires a clear and complete legal framework, including End of Waste (EoW), to ensure the financial viability of a recycling industry where CDW may be transported across internal EU borders with minimal bureaucracy to deliver a reliable source of **Secondary Raw Materials** (SRM). Investing in circular construction by promoting design for adaptability/disassembly, for reuse and for recycling concepts and by promoting more recycled materials and reused products for new construction, would reduce environmental impacts and will significantly lower our dependency on imports from non-EU suppliers. By supplying local products to local projects, we reduce transport costs and develop resilient value chains for EU strong industrial ecosystems.

#carbon #circularity #CircularEconomy #SustainableConstruction #EUcompetitiveness #jobs

Founded in 1988, Construction Products Europe is a Brussels-based international non-profit making association. The association is made up of national and European associations that represent Small and Medium-size Enterprises and world-leading companies. Construction Products Europe aims to promote the European construction industry, to share information on EU legislation and standardisation and to provide input in all European construction-related initiatives.

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