

Construction and Demolition Waste-based “Green” Demountable Structural Components

Global concrete and cement production

Concrete is the second most used material in the world after water, and it has Portland cement (PC) as the main binder. However, PC is quite energy-intensive and non-eco-friendly to manufacture requiring the extraction/processing of natural raw materials and accounts for up to 9% of anthropogenic CO₂ emissions.



Construction and demolition waste (CDW)

Construction and demolition waste (CDW) accounts for more than a third of all waste generated in the. Some components of CDW have a high resource value, while others may have a lower value, but could still be easily reprocessed into new products or materials. Despite its potential, the level of recycling and material recovery of CDW varies greatly across the EU, ranging from less than 10% to over 90%. and mainly restricted to low-tech applications.

Main purpose of CodeDEMO

CodeDEMO project focuses on the development of “truly green” entirely CDW-based concretes that are completely free of PC/clean aggregates which will be incorporated in the design/production of pre-fabricated demountable structural elements to promote cleaner manufacturing processes for more resource-efficient circular building products and designs for building circularity.

