



The UN has warned that we must ensure the temperature of the planet doesn't rise beyond 1.5 degree Celsius | Photo source [Marcin Jozwiak on Unsplash](#)

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DIGITAL-EMBODIED CARBON CALCULATOR HELPS TO REDUCE INDUSTRY EMISSIONS

  PROPERTY & CONSTRUCTION

Companies across several industries have come together to create the first free tool that allows for supply chain specific analysis of embodied carbon data

Spotted: Companies across architectural, engineering and construction industries have collaborated, in an attempt to reduce greenhouse gas emissions and counter climate change. The Embodied Carbon in Construction Calculator (EC3) is free to use, and aims to tackle the embodied carbon emissions that come from the manufacturing, transport and installation of construction materials, which are fixed at the point of the building's completion.

The EC3 tool calculates the embodied carbon emissions associated with material production and construction processes and is designed to guide architects, engineers and policy-makers to choose the more sustainable option. Its database includes more than 16,000 materials, which consist of concrete, steel, wood, glass, aluminum, insulation, gypsum, carpet and ceiling tiles. As this information was previously only available as PDF files that were inconsistently formatted and saved in different databases, direct comparisons had been difficult. Furthermore, the EC3 tool can be used to make standardised Environmental Product Declarations, verifying that the data is accurate.

EC3 is currently in public beta and is accessible for free after registering on the Building Transparency website. A primer then acts as a guide on how to incorporate the tool into various stages of the design, building and procurement, and construction process. All data collected is private and confidential.

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Takeaway:

Last year, the UN demanded that urgent global action needed to take place to stop the temperature of the planet rising beyond 1.5 degree Celsius, but we have limited time to actionably reduce carbon emissions. The architecture and construction industries are currently responsible for around 40 per cent of the world's global gas emissions. Therefore, by enabling simple visualisations of a project's potential embodied carbon impacts, the EC3 tool could accelerate the industry's effort to address the problem and make it manageable. During the pilot period of the tool, participating projects have already managed to reduce embodied carbon emissions by 30 per cent, and without significant financial impact.