

lecture

Eco-Friendly Compressed Stabilised Earth Blocks: Enhancing Sustainability with Recycled Cement and Construction Waste

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Civil Engineering Research and Innovation for Sustainability – CERIS

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11h30, Room 9/35

Civil Engineering and Architecture Department

University of Beira Interior, Covilhã, Portugal



Eco+RCEB Project: Compressed Stabilised Earth Blocks (CSEB) enhance building materials' processing speed, strength, and durability with stabilisers like Portland cement or hydraulic lime. This project aims to create an eco-friendly CSEB using recycled cement from waste concrete and construction waste to boost sustainability. The new CSEB will be tested for physical, mechanical, thermal, and durability properties in various conditions. Additionally, eco-efficient masonry earth mortars for CSEB joints will be developed. The project's economic and environmental life-cycle analyses will determine the best balance of performance and sustainability. Partners include Instituto Superior Técnico, Universidad de Alicante, Universidade da Beira Interior, and “Oficinas do Convento” in Montemor.

Project Coordinator: José Alexandre Bogas (CERIS-IST); C-MADE/UBI Team Responsible: João Castro-Gomes. Project period: March 2022 – March 2025. Eco+RCEB PTDC/ECI-CON/0704/2021. Financed by the FCT—Foundation for Science and Technology, Portugal. <https://cdwvalue.eu/project-ecorceb>



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