



## Circular Economy and Life Cycle Management for Sustainability

### Contacts

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## (De)Construct for Circular Economy

## (Des)construir para a Economia Circular

(De)construct for Circular Economy

Working together for a green competitive and inclusive Europe

### Motivation

The building and construction sector is a key area that has significant impacts on the economy and environment. This sector contributes to the economy (about 9% of the EU's Gross Domestic Product (GDP)), provides direct and indirect job opportunities (18 million direct jobs at the EU) and satisfies the people's needs for buildings and facilities. Moreover, this sector is one of the main consumers of resources: about 50% of the total use of raw materials, and 36% of the global final energy use. In addition, the construction and demolition projects are also responsible for about a third of the total waste generated in the EU, with a significant share being landfilled which creates serious environmental problems during the entire lifecycle of buildings, especially during the operation and end-of-life stages. In this context, it can be concluded that there are an urgent need and pressure in the construction industry to shift from the current paradigm into one with a focus on adopting the circular economy approach to ensure a more sustainable building sector.

### Objectives and results

The main aim of the project "(De)construct for Circular Economy" is to foster a regional strategy for the reuse of building products and components as well as the recycling of construction and demolition waste (CDW), thus reducing the environmental impact of the construction sector and promoting its circularity.

The main outputs achieved by the project are:

- Municipal construction regulations that support the selective dismantling of buildings, the reuse of products and the recycling of materials.
- A procedure for pre-demolition audits and a model of materials passport adjusted to the regional reality;
- A management model for the materials and CDW in order to optimize (economically and environmentally) their recovery, reuse and recycling and the location of the centres, based on mathematical models;
- The development of a regional strategy for the prevention, processing, distribution and commercialization of CDW, involving local, regional and national stakeholders.

## Partnership



- Comunidade Intermunicipal do Baixo Alentejo (PT) – coordenador
- Laboratório Nacional de Energia e Geologia (PT)
- NOVA School of Science and Technology (PT)
- Instituto Politécnico de Portalegre (PT)
- RESIALENTEJO E.I.M. (PT)
- Associação Smart Waste Portugal (PT)
- RDF Construções (PT)
- CERCI Beja (PT)
- IDN (NO)
- ENVIROS (CZ)
- CSCP (RO)

## Webpage

<https://desconstruir.pt/>

## Project duration

28 months

01-09-2020 to 31-12-2022