OBJECTIVES

The overall objective of the RE⁴ project - REuse and REcycling of Construction and Deconstruction Waste (CDW), materials and structures in energy efficient pREfabricated elements for building REfurbishment and construction - is to develop a fully prefabricated energy-efficient building made of components containing up to 65% by weight of CDW-derived materials and structures. This involved the development of several intermediate but self-standing industrial results, such as an innovative CDW sorting system based on automated robotics equipped with advanced sensors, a number of prefabricated building components (including connections) based on CDW-derived materials and structures, as well as the related production processes and equipment.

ACTIVITIES

ACR+ is in particular in charge of gathering data about CDW management regulatory framework and producing a report on the use of economic instruments such as waste taxes, waste collection charges, taxes on raw materials and products, deposit-refund schemes, subsidies, and fiscal incentives to improve the performances of the CDW management systems in Europe. ACR+ is also in charge of developing project visual identity materials such as a project leaflet, a presentation template and a roll-up, and implementing dissemination activities to spread the project results to local and regional authorities: a brochure, a roll-up poster and a project presentation were created at the beginning of the project and will be updated based on the project development.

PARTNERS INVOLVED

RE⁴’s project leader is CETMA (Centro di progettazione, design & tecnologie dei materiali, IT). The project gathers partners from all over Europe:

- ACC, Acciona Infraestructuras sa (ES)
- ACR+, Association of Cities and Regions for Sustainable Resource Management (BE)
- RISE Research Institutes of Sweden AB (formerly CBI Betong Institutet AB) (SE)
- CDE, CDE global limited (UK)
- CREAM Concrete, CREAM Concrete Products Limited (UK)
- FENIX TNT s.r.o. (CZ)
- NTUST, National Taiwan University Of Science And Technology (TW)
- QUB, The Queen's University Of Belfast (UK)
- ZRSA, Roswag Architekten Gesellschaft Von Architekten Mbh (DE)
- STAM, STAM SRL (IT)
- STRESS Sviluppo tecnologie e ricerca per l’edilizia sismicamente sicura ed ecosostenibile scarl (IT)
- VH, VORTEX HYDRA S.R.L. (IT)

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More information: www.re4.eu

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