

September 2016 – February 2020

## OBJECTIVES

The overall objective of the **RE<sup>4</sup> 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

RE<sup>4</sup>'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 Betonginstitutet AB) (SE)
- **CDE**, CDE global limited (UK)
- **CREAGH Concrete**, CREAGH 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](http://www.re4.eu)



**Paolo Marengo**

+32 2 234 11 93 | [pm@acrplus.org](mailto:pm@acrplus.org)

**Francesco Lembo**

+32 2 234 65 01 | [fl@acrplus.org](mailto:fl@acrplus.org)