



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723583



## RE<sup>4</sup> Project

### REuse and REcycling of CDW materials and structures in energy efficient pREfabricated elements for building REfurbishment and construction

#### D9.3 First Short Interim Management Report

#### Public summary of deliverable

Author(s) <sup>1</sup> :	Project Coordinator (CETMA), WP Leaders (CETMA, STAM, ROS, QUB, CBI, ACC, STRESS, FENIX)
Date:	07/09/2018
Work package:	WP9 - Project Management
Distribution <sup>2</sup>	This document is a public summary of the confidential deliverable D9.3.
Status <sup>3</sup> :	Final
Abstract:	The document reports on the status of activities performed in RE <sup>4</sup> Project from M1 (Sep 16) until M6 (Feb 17). It provides a short but meaningful synopsis for each WP in progress, reporting: overview, main obtained results, deliverables produced, activities planned for the next 6 months (M7/Mar 17-M12/Sep 17), deviations and corrective actions (if any).
File Name	RE4_D9.3_First Short Interim Management Report_Final_V0.2_Public Summary

Version	Date	Description	Written By	Approved by
V0.2	07.09.2018	Public Summary of D9.3	CETMA	PC

<sup>1</sup> Just mention the partner(s) responsible for the Deliverable

<sup>2</sup> PU: Public, RE: restricted to a group specified by the consortium, CO: Confidential, only for members of the consortium; Commission services always included.

<sup>3</sup> Draft, Revised, Final

RE4\_D9.3\_First Short Interim Management Report\_Final\_V0.2\_Public Summary.docx

© RE<sup>4</sup> Consortium - This document and the information contained are RE<sup>4</sup> consortium property and shall not be copied or disclosed to any third party without RE<sup>4</sup> consortium prior written authorisation

## Purpose and scope

The **Deliverable D9.3** (*First short Interim Management Report*) belongs to the *Reporting to the EC Task (T9.4)* of the *Project Management Work Package (WP9)*. In accordance with the art. 20 of the Grant Agreement, the European Commission established 3 Reporting Periods (RPs) of the Project (RP1: from M1 to M18, RP2: from M19 to M30 and RP3: from M31 to M42). In addition, short Interim Management Reports have to be provided (in M6, M12, M24, and M36).

The D9.3 reports on the status of activities performed until M6.

## Summary of the work done in the period (M1-M6)

According to the Description of the Action (DoA), Tasks 1.1, 1.2, 2.1, 4.1 and 8.5 were completed and 12 out of 12 Deliverables foreseen within M6 were regularly submitted (*D1.1 Data collection on CDW*, *D1.3 Overview on the current status of construction of prefabricated elements with recycled materials*, *D2.1 CDW specifications and material requirements for prefabricated structures*, *D4.1 Composition of materials from demolition and available volumes of sorted fractions*, *D8.1 Website creation*, *D8.2 Communication and Dissemination Plan*, *D8.3 Promo material design*, *D8.4 Data Management Plan*, *D9.1 Strategic Action Plan*, *D9.2 Monitoring and evaluation Plan*, *D9.3 First short Interim Management Report*, *D10.2 NEC – Requirement No. 1*) and 2 out of 2 Milestones foreseen within M6 were regularly achieved (*MS11 Project website*, verified by means of the availability of *D8.1 Website creation* and of the website on line and operative, and *MS12 SAP approval by Project Management Committee* verified by

means of the approval of *D9.1 Strategic Action Plan* by PMC).

No deviations occurred during the reference period with respect to timing and activities progress, and the mid-term targets in M6 were fully met.

## Explanation of the work carried out in the period (M1-M6) per WP

**WP1** Mapping and analysis of CDW reuse and recycling in prefabricated elements (WP leader CETMA)

The main objective of Work Package 1 is to define a collective outline and map the current best practices related to various aspects of reuse and recycling of CDW in prefabricated elements (including technological, standardization issues and policy measures).

In this reporting period 2 deliverables (*D1.1* and *D1.3*) were produced and submitted in M6. *D1.1 – Data collection on CDW* outlines the EU situation with regard to CDW management. *D1.3 – Overview of the current status of construction of prefabricated elements with recycled materials* focuses on EU current trends in the reuse/recycling of CDW in prefabricated elements. Moreover, collection activity of information about the current status on policy measures and regulatory frameworks in EU countries started.

**WP2** Strategies for innovative sorting of CDW and reuse of structures from dismantled buildings (WP leader STAM)

The main goal of Work Package 2 is to study innovative sorting solutions for the recycling of CDW and strategies for the reuse of structures from dismantled buildings.

In the first semester of the project, *D2.1 CDW specifications and material requirements for prefabricated structures* was submitted in M4 and collects the features of CDW materials feeding the sorting system and the required specifications for recycled materials to be used for prefabrication. In addition, the work was also focused on the characterization of building and renovation standards/construction methods and working on standards for dismantling.

### **WP3** Innovative concept for modular/ easy installation and disassembly of eco-friendly prefabricated elements (WP leader ZRSA)

Work Package 3 is focused on the development of innovative design concepts for an energy efficient building.

WP3 started with the preliminary collection of information to be used to: develop the concept design both for new buildings and refurbishment/extension interventions; design the structural elements. In addition, a short document dealing with the description of the approach, the main standards and the input needed to carry out the hydrothermal modelling and the fire modelling was provided.

### **WP4** Technical characterisation of CDW-derived materials for the production of building elements (WP leader QUB)

Work Package 4 is mainly focused on establishing the quality of CDW-derived materials and assessing the compliance of each sorted fraction against relevant National and European specifications for the production of buildings elements.

In the first semester of the project, *D4.1 – Composition of materials from demolition and*

*available volumes of sorted fractions* was submitted in M6. The report outlines the typical composition and volumes of materials arising from demolition activities, focusing on the fraction defined in WP2.

### **WP5** Development of precast components and elements from CDW (WP leader CBI)

Work Package 5 is focused on the development of robust materials with a high level of incorporation of CDW and prefabricated components and elements from these materials, which can be easily installed and disassembled.

WP5 started in M2 and will be completed in M31. In the first 6-month period much focus was jointly with WP4 on specification of needed quantities of CDW, required in order to be able to perform characterization (WP4) and initial material tests (WP5).

### **WP6** Pilot level demonstration of CDW based prefabricated elements (WP leader ACCIONA)

Work Package 6 is focused on demonstration and validation of prefabricated elements designed in WP3 and developed in WP5 for new energy efficient buildings and for refurbishment of existing buildings.

WP6 has not yet started, however WP6 partners provided preliminary contribution for what concerns interactions with WP3 and WP5.

### **WP7** Life-cycle and HSE analysis and certification/standardization strategy definition (WP leader STRESS)

Work Package 7 is focused on all the aspects related to environmental (LCA), social (LCSA), health and safety impacts, cost analysis (LCC) and certification issues connected with the

RE4 solutions, with the aim of addressing and evaluating their sustainability, reducing time to market and contributing to improve market and social acceptance.

WP7 started in M13, however partners provided preliminary contribution for what concerns interactions with WP3, WP5 and WP6.

### WP8 Training, dissemination and exploitation (WP leader FENIX)

The main goal of Work Package 8 is to define appropriate measures for managing dissemination and exploitation of the Project results.

During the first semester of the project, activities of WP8 mainly focused on dissemination activities in order to establish the Project common visual identity and thus help to promote Project from the very beginning. The project website was created and published in M3, and a detailed communication and dissemination plan was provided in M6 together with promo material design, in order to support RE<sup>4</sup> partners during dissemination events.



Figure 1 – Project logo

A data management plan was produced in order to establish the measures for promoting the findings during the Project's life and detailed what data the Project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how it will be curated and preserved. The assessment of economic instruments of CDW started with analysis of the CDW management systems in Europe from a literature point of

view and from on-the-field studies. A preliminary planning of the approach was performed by FENIX, mainly in terms of choosing suitable business model tool (CANVAS) and its application on CDW market, planning of business model workshop and preparing templates for contributing partners to get inputs for business model development. Mapping of patents related to CDW and Project exploitable results identification and characterisation have been initiated in order to structure future IPR manual following preliminary assessment from the proposal phase.

### WP9 Project Management (WP leader CETMA)

The goal of Work Package 9 is to ensure that the Project meets its objectives within the budget and scheduled timescales.

In the first semester, 3 deliverables were submitted (D9.1, D9.2, and D9.3) in M6. The first one focuses on the definition of a Strategic Action Plan, the second on the design of Monitoring and Evaluation Plan, and the last one is a short interim management report, foreseen to summarize the activities carried out in the first 6-month period of the project. In addition to reporting activities, other tasks were managed such as the organization and post-processing of meetings, the management of legal documents, and the general coordination of the partnership.

### WP10 Ethics requirements (WP leader CETMA)

Work Package 7 is focused on the "ethics requirements" that the project must comply with.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723583



During the first 6-month period, D10.2 was completed and submitted in M3. The primary scope of D10.2 was to examine ethical issues involved in RE<sup>4</sup> project, especially those related to the participation of a non-EU country in the research activities.

#### Activities planned in the next period (M7-M12)

Activities planned for the next 6 months (M7-M12) foresee the submission of 8 deliverables (D1.2 *Statistics assessment*, D1.4 *Overview on the current status on policy measures and regulatory frameworks*, D1.5 *Certification framework*, D4.2 *Geometrical, physical and chemical characterisation of CDW-derived materials*, D8.5 *Use of economic instruments*, D8.6 *Market Assessment*, D9.4 *Second short Interim Management Report*, D10.1 EQP – Requirements No.1) and 2 milestones (MS1 *Availability of the CD waste streams across Europe*, MS5 *Availability of comprehensive characterisation of CDW-derived materials for their recycle or reuse*).

#### DISCLAIMER

*The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein.*