

Automated Solutions for Sustainable and Circular Construction and Demolition Waste Management

January 2023 | E-Newsletter

Welcome to the first <u>RECONMATIC</u> newsletter! We are taking our first steps in the new year by announcing the project's first activities and news. In this first but very rich issue, you will find our first press release informing on the project's aims and multidisciplinary consortium, and the project's first brochure. You will also find information and recordings of a webinar on Construction and Demolition Waste (CDW) management, to which our coordinator and several partners were invited to contribute, and the first scientific publication on CDW volume for a typical Mediterranean residential building. A blog article will introduce you to the world of open formats for BIM (Building Information Modelling) and will explain why they are here to stay. Last but not least, you will be able to learn more about the project by exploring our report on the sector events that our partners have organised or participated in.

We invite you to <u>follow us</u> on <u>our channels</u> to stay updated on all the project's activities. Enjoy your reading!

News

RECONMATIC: Six Demonstrator projects for a zerowaste future in the construction sector



In 2018, the construction industry generated 35.7% of total waste in the EU. In the UK it was an even higher percentage, reaching 48.8%. <u>RECONMATIC</u> is a four-year study, funded by the EU, UK and China, that will explore "easily adoptable" solutions to improve waste management in construction, the biggest consumer of non-renewable resources in the region.

The project officially began last summer and the kick-off meeting took place in Prague last September, bringing together 23 partners from seven countries across the EU, the UK and China. These partners will develop automated tools to help meet the EU target of zero construction and demolition waste (CDW) by 2050 and will work on six <u>demonstrator projects</u> in Greece, Italy, the Czech Republic, Spain and the UK.

Read the Press Release

The RECONMATIC Brochure

The first <u>RECONMATIC</u> brochure is created and is available in the downloads section of our website <u>news</u> webpage, to preview and download it.

Our poster is coming up soon!



Preview & Download

Celebrating 200 followers



We are very happy to announce that RECONMATIC has reached its first milestone of 200 followers on the project's <u>LinkedIn</u> page, three months after the project's Kick-off! With your contribution, we will reach the goals we have set out during the project planning phase. However, goals are only set to be surpassed! So stay tuned for our upcoming news and events and feel free to share it!





Get our latest updates in your mailbox

Assessing the construction and demolition waste volume for a typical Mediterranean residential building

Partners involved: Aristotle University of Thessaloniki (AUTh)



The Aristotle University of Thessaloniki (AUTh), member of <u>the RECONMATIC</u> <u>consortium</u>, participated in the <u>International Conference on Environmental Design</u> (ICED2022), held on the 22-23 October '22 in Athens, Greece, presenting a study, that has been conducted in the framework of the RECONMATIC project.

The study 'Assessing the construction and demolition waste volume for a typical Mediterranean residential building' aims to perform a documented estimation of the demolition waste quantities of typical multistorey urban buildings which constitute the great majority of the Greek building stock. Such buildings, constructed between 1955-1965, will need to be demolished, since their required structural support and energy performance upgrade is continuously less feasible when seen under the framework of the EU's 2050 targets.

Learn more

Webinar

Experts On Webinars: Global Dialogues for a Sustainable Built Environment

Partners involved: A&C, China Association of Circular Economy (CACE), Czech Technical

University (CTU), BIMBox, Tecnalia, University of Manchester(UMan)

In October 2022, our partner Arcas & Callisto Consulting (A&C) held three online webinars of the Experts on: Global Dialogues for a Sustainable Built Environment, the last of which featured presentations and exchanges by our experts around circular economy and sustainable and recyclable technologies for C&D waste.

In the last session of the webinar series, A&C invited seven Chinese and international experts to give a comprehensive and systematic introduction to the current state of the circular economy and the development of sustainable and recyclable C&D waste technologies in China and abroad, as well as to the European Horizon project RECONMATIC: Automated solutions for sustainable and circular construction and demolition waste management", represented by the partners: China Association of Circular Economy (CACE), Czech Technical University (CTU), BIMBox, Tecnalia, University of Manchester (UMan).

Read the full article by Arcas and Callisto Consulting on the RECONMATIC's <u>news</u> webpage to learn more about the experts and <u>watch the videos</u> of their contributions to the webinar.

Learn More

Blog

#Working With... IFC, MVD and IDS

Introducing the world of open formats for BIM - why they are here to

stay.



Image by Evgeniy Surzhan on Unsplash

To achieve its project goals, <u>RECONMATIC</u> will develop automated tools and digitalised processes and decision-making, in order to mitigate and reduce waste, and to foster higher added value reuse of C&D waste materials. As part of the project, one task is concentrated on finding the common language on how waste information may be exchanged. To support the widest audience possible, the project will be software neutral, with the team selecting to base the solutions on <u>openBIM standards</u> to achieve this aspiration.

If you want to know what is openBIM® and more about the related technologies read the full blog post by BIMBox on our <u>news</u> webpage.

Learn More

Events

ITC-AICE represented RECONMATIC in CircLean & ECOFIRA events

Partners involved: Institute for Ceramic Technology (ITC-AICE)



Dr Mónica Vicent at CircLean Spanish Open Innovation Workshop (May 2022)

Learn More

MSSM 2022 Conference, London: The 1st official presentation of the RECONMATIC Project

Partners involved: University of Salford (USal), Czech Technical University (CTU)



RECONMATIC was presented last July at the 8th International Conference on Material Science & Smart Materials, at Brunel University London. There, both researchers and practitioners around the world presented their last scientific results and applications in industry. Our partner Dr Juan Antonio Férriz Papí from The University of Salford (USal) presented the project, and Dr Nezerka from the Czech Technical University in Prague (CTU) presented a project about computer vision-based algorithms for the recognition of construction waste materials. CTU is coordinating the project and is going to further develop and apply this technology in the RECONMATIC project.



RECONMATIC in S3 Mission experts meeting in Prague

Partners involved: Czech Technical University (CTU), South Bohemian Agency for



Support to Innovation (JAIP)

On 21st September 2022, a meeting of the Mission Expert Group (RIS3 Strategy) was held in Prague, Czech Republic. This meeting was organised by the Ministry and was attended by representatives from CTU (Dr Jan Valentin - Project Coordinator) and JAIP (Michaela Novotná - leading the creation of the RECONMATIC <u>e-Learning resources and training program</u>). The Mission Expert Group helps with consultations in defining other areas of applied research with an emphasis on circularity on a national level and tries to link national aspects with the topics addressed by the <u>RECONMATIC</u> project. The project goals and outputs were presented during the networking.

University of Salford in a Robotics Symposium in Manchester

Partners involved: University of Salford (USal)



Juan A. Ferriz Papi, (lecturer in Salford University), presenting RECONMATIC

A Joint Symposium between Future Robotics, Engineering and Transport Systems Research and Innovation Centre, (FRETS) and the North of England Robotics Innovation Centre (NERIC) took place on the 7th of October 2022 in Salford. The RECONMATIC project was presented in the <u>symposium</u> as a current interdisciplinary collaboration in Robotics. Juan A. Ferriz-Papi, Jason Underwood and Theo Theodoridis are the main researchers involved in the project.



RECONMATIC in the RECYCLING 2022 Conference, Czechia

Partners involved: Czech Technical University in Prague (CTU)



The representatives of the RECONMATIC project attended the 25th annual RECYCLING conference in the Czech Republic on 13-14 October 2022. The conference was organized by the <u>Association for Recycling of Construction Materials (ARSM)</u>, and the topic for this year was "Circular economy in construction, recycling and use of secondary building materials". More than 200 stakeholders, including representatives of key state institutions, participated and joined the discussions that focused on the 20 papers presented at the conference.

The <u>RECONMATIC</u> project agenda addresses directly the focus of this year's conference and was presented at the opening of the event by our coordinator, Dr Jan Valentin. Read the full article to learn more about the **topics discussed** and their **first impact on the policymakers** that were present.

Learn More

II Conference on circular economy and sustainability in construction, Madrid

Partners involved: Tecnalia, RECSO



On October 25, 2022, TECNALIA – partner of the <u>RECONMATIC</u> Project – organized the "II Conference on circular economy and sustainability in construction" in Madrid. The conference opened the debate on the problems faced by the construction sector in its effort to apply the principles of sustainability and safeguard the environment. RECSO, also a partner of the RECONMATIC Project also had a presentation at the Conference.



Visit of TECNALIA to the RECSO facilities

Partners involved: Tecnalia, RECSO



On November 3, a work team from <u>TECNALIA</u> visited the <u>RECSO</u> facilities. The purpose of this was to gather information for the RECONMATIC project, for automated off-site Construction & Demolition Waste (CWM) management and treatment and new materials derived from CDW.

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RECONMATIC represented by ICATALIST in CONAMA Conference

Partners involved: ICATALIST



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Upcoming Events

The partners are progressing with their work and planning their activities and participation in sector events all around Europe for the following months. They will be glad to meet you in person and discuss further our aims and possible synergies and collaborations. The **University of Salford** and **Arcas & Callisto Consulting** are going to be in the <u>Futurebuild Exhibition</u>, on the 7th-9th of March 2023.

Stay tuned to our website <u>news</u> webpage and follow us on our social media channels for updates on all the events and on our project progress.



Get our latest updates in your mailbox



The RECONMATIC project is funded by the European Union under Grant Agreement No. 101058580 and by the UK Research and Innovation as part of the UK Guarantee programme for UK Horizon Europe participation.

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