



Volume 2 | Issue 1

February 2024

# Circular B

## Implementation of the Circular Economy to the Built Environment

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*First things first*

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Welcome to the second newsletter from *CircularB*.

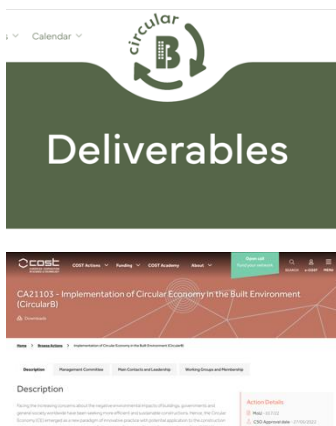
15 months have passed since our first meeting in Brussels, October 2022. We have seen the publication of the proceedings from our first workshop which took place in Skopje, April 2023, see below for more information about this. We held a joint workgroup meeting in Guimarães, Portugal in June, and another in Cordoba, Spain in September. We started the second Grant Period with a meeting in Malta in December, and 2024 with a meeting in Olhão, Portugal.

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*What have been done so far?*

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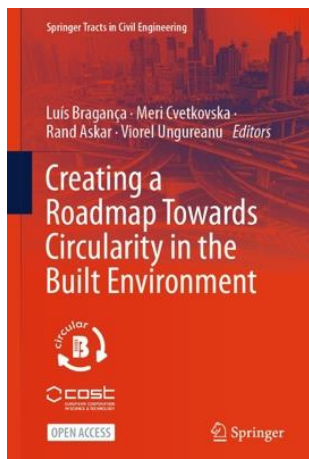
Through this period, we created our dissemination strategy, Deliverable 1. All our deliverables are available by clicking on the diagram to the left. We also created the Action's dissemination poster, the brochure and our Scientific Communication Plan. All these are available from our COST Programme.



### Skopje Workshop

The papers presented at the workshop were collected, reviewed, edited and have been brought together into a Springer Nature publication. This is a full Open Access document, available as a download from the Springer website. Click on the image of the book on the left to go to the website to download a copy.

It was edited by Luís Bragança, Meri Cvetkovska, Rand Askar and Viorel Ungureanu. It was made available at the beginning of December 2023. As of January 2024 there have been over 26,000 downloads, with two chapter citations. Through just six X/Twitter impressions, over 28,000 persons have heard about the publication.



## Social Media: follow us on

The Action has LinkedIn (<https://www.linkedin.com/company/circularb/>), Instagram (@circular\_b\_cost), and X/Twitter (@circularB\_COST) accounts. We would like to grow this method of dissemination, please follow us and activate the “Notifications” to stay tuned to our updates.



## Grants

We awarded five grants during our first year to provide support for research and collaboration within our community. Out of the five grants awarded, four were given to Short-Term Scientific Missions (STSMs), enabling our members to undertake important research trips and collaborations with colleagues in different countries. We are excited to see the results of these missions and the valuable contributions they will make to our field.

Let's see what the grant recipients shared about their experience:

### Nicolas Alaux:

- From: Graz University of Technology, Austria
- Host Institution (STSM): WiserBrick, Amsterdam, The Netherlands
- From 15/07/2023 to 21/07/2023
- Project Title: How can life cycle assessment support design for disassembly in buildings? Closing the gap between theory and practice.

*“My STSM aimed to explore ways to reward design for disassembly in buildings through life cycle assessment. I explored a range of methodological approaches and formulated recommendations for both practical implementation and future research. I was lucky enough to be hosted by WiseBrick, a Dutch start-up that works to reduce the environmental impact of buildings during their life cycle. This partnership was important because it helped move from a theoretical, research-based approach to a more pragmatic, practice-oriented need. It allowed me to reflect on the practical needs, which I am not necessarily used to during my PhD and which I now consider fundamental for the dissemination of science. The work carried out during the STSM was so beneficial that we decided to continue the collaboration and plan a related publication to further develop the concepts studied.”*



### José Manuel Gonçalves:

- From: Universidad De Valladolid, Spain
- Host Institution (STSM): University of Ljubljana, Slovenia
- From 09/07/2023 to 26/08/2023
- Project Title: Testing mycelium composites made with waste as an environmentally conscious building block.

*“The Short Term Scientific Visit (STSM) at the University of Ljubljana, funded by the COST Action CA21103 “Implementation of Circular Economy in the Built Environment (CircularB)”, was an excellent opportunity to combine my knowledge of biology with the knowledge of the host supervisor (Davor Kržisnik) in materials science. As part of the STSM, we wanted to evaluate fungal biocomposites with three fungal species (Ganoderma resinaceum, Pleurotus ostreatus and Schizophyllum commune) that grow in waste material s such as fabric fibre waste, cigarette waste, cardboard waste and plywood waste as alternative building materials that could be used as insulation or as building blocks. With the ever-increasing environmental impact of buildings, the industry is in a unique position to explore innovative technologies. Standard building materials*



such as concrete and steel contribute significantly to the construction industry's considerable environmental impact. In order to meet the ambitious environmental goals of the construction industry, research into unconventional materials must be pursued. Mycelium in the form of bricks is one of the most promising new materials currently under investigation. The STSM was extremely valuable as it is a new area for me that I am very interested in exploring. The preliminary results are promising, but much more research needs to be done. We will continue to work on the results with the aim of writing a manuscript with the support of other members of CircularB and drafting a research proposal between the University of Valladolid and the University of Ljubljana and other members of this COST."

### Rand Askar:

- From: University of Minho, Portugal
- Host Institution (STSM): Vrije Universiteit Brussel (VUB) Architectural Engineering
- From 03/05/2023 to 26/07/2023
- Project Title: Testing and Validating the CB Index on Case Studies.

*"Embarking on the STSM journey has proven to be an invaluable experience, propelling my research on circularity to new heights. The opportunity provided fresh perspectives and innovative ideas, serving as a catalyst in advancing the development of my circularity assessment tool for buildings. Grateful for this enriching mission that has significantly contributed to the evolution of my work."*

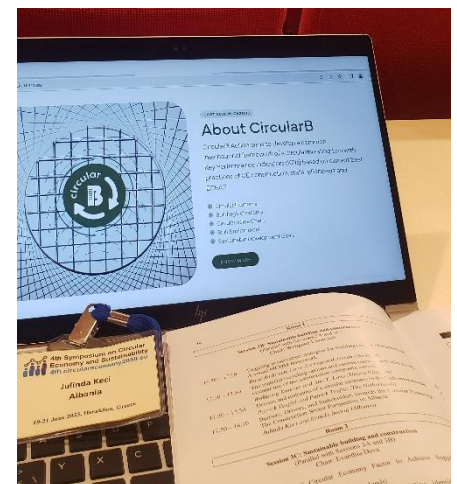


In addition, we have also been awarded one grant for an Inclusiveness Target Countries Conference (ITC) grant. Let's check how was her experience.

### Julinda Keci:

- From: Epoka University, Albania
- Conference: 4<sup>th</sup> Symposium on Circular Economy and Sustainability, Heraklion, Greece
- From 19 to 21 June, 2023
- Presentation Title: Barriers, Drivers, and Stakeholders towards the Circular Economy: The Construction Sector Perspective in Albania.

*"I am honoured to offer my testimony about the great experience I had while taking part in the ITC (Inclusiveness Target Country) conference grant program as part of COST Action CA21103. This initiative, focused on Circular Economy, provided me with an invaluable opportunity to contribute to and learn from a lively international community of researchers and practitioners. Through the ITC conference grant, I presented my work at the 4th International Conference on Circular Economy (<https://4th.circulareconomy2050.eu/>), which was held in Heraklion, Greece on 19-21 June 2023. The conference provided a great forum for the sharing of knowledge and ideas, bringing together professionals from diverse sectors to discuss the difficulties and opportunities associated with the transition to a circular economy. As a participant from Albania, I had the opportunity to interact with renowned professionals and academics in different fields of Circular Economy worldwide. I gained a better knowledge of the essential principles, emerging trends, and creative practices impacting the circular economy landscape through attending insightful presentations, and networking sessions. Making a presentation at the conference allowed me to promote my work, knowledge, and insights to a varied audience of professionals, scholars, policymakers, and industry leaders. This exposure will hopefully help to improve my profile and recognition within the circular economy community, perhaps leading to further chances for collaboration and participation. One of the most valuable outcomes*



*of my participation was exposure to diverse perspectives and innovative approaches to circular economy implementation. I had the opportunity to exchange viewpoints, engage in discussions and establish connections that have broadened my horizon in research and professional development. This experience has contributed substantial value to my career, inspiring me to contribute more effectively to the circular economy agenda in the future in my home country. I'm also pleased to acknowledge the publications and outreach initiatives that have resulted from my participation, which motivated me to contribute to scholarly journals. By disseminating my study results, I wish to inspire sustainable practices and encourage others to join this revolutionary movement in the Western Balkan Region. In conclusion, receiving the ITC conference grant award through Cost Action CA21103 has been a game-changing experience for me. I am incredibly grateful for the chance to take part in the 4th International Conference on Circular Economy and the positive effects it has had on my professional development. I truly recommend this opportunity to anyone who is enthusiastic and willing to work with like-minded people from all around the world."*

We would like to extend our warmest congratulations to all the grant recipients and wish them every success in their research and collaborations. We are proud to support the work of our members in this way and look forward to seeing the results of their efforts.

## **Deliverables**

We are close to completing D2- *The State of the Art Report*. This is to be published in two parts, one being a review of country responses. It has decided that this will be updated on a regular basis throughout the lifetime of the COST Action. The rest of D2 is nearing completion, currently being edited by the WG4 team. It is hoped that this will be sent to Springer for publication before the end of February 2024.

The Malta meeting saw the initial discussions around D3 *Report on technical challenges and barriers for circular strategies implementation*. There are two aspects to this work, one being a thorough literature review from which published challenges will be drawn, and a comprehensive questionnaire across a wide range of stakeholders to identify barriers which are being met and how they are being dealt with.

The Working-Group 4 team are in discussions as to what material will be used to create the e-learning platform which is Deliverable D5. *E-learning database on best practice and circular solutions*. There is an ongoing discussion regarding where this material is hosted, and the sustainability of this material after the end of the COST Action. The plan is for material presented in the May 2024 training school will be captured as the initial tranche of material. However, we do not want to limit it to Training School material.

## **Glossary of Terms**

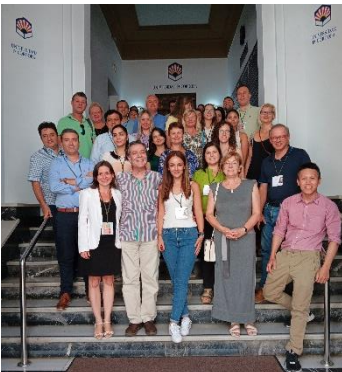
We continue to work on the Glossary of terms. A version is published on our website. We need to translate it and need volunteers to do this. We are also continuing to add to this document. This is a collaborative document, all contributions are welcome.

## Working Group Meeting in Guimarães, Portugal 19 Jun 2023

On the 19<sup>th</sup> of June, we had a hybrid meeting in Guimarães, Portugal. This meeting was dedicated to the Working Groups coming together, sharing ideas, and discussing Deliverable 2 – State-of-the-Art Report. The discussions focused on advancing the development of the deliverable, the sub-groups and chapters and collaborative papers. We also discussed the e-learning platform and the ideas for our 1<sup>st</sup> Training School, in 2024.



## Workshop 1 – Part 2 (WS1P2) in Cordoba, Spain 12 – 15 Sep 2023



CircularB hosted Workshop1 Part2 (WS1P2) in Cordoba, Spain, from September 12 to 15 at the Consejo Social Consultivo of the University of Cordoba. This event served as a continuation of Workshop1 Part1, focusing on crafting a state-of-the-art roadmap for implementing Circular Economy (CE) in buildings and the built environment. Part 2 saw active participation from both in-person and online attendees, contributing to discussions on Deliverable 2 (D2) and ensuring diverse perspectives were incorporated into the refinement process. The timeline for D2 development was solidified, and potential publication venues were presented.

WS1P2 featured presentations by D2 chapters coordinators and WG leaders, covering a broad spectrum of topics, including circularity concepts, strategies, and considerations from the material scale to individual buildings and the urban built environment scale. Participants explored criteria, indicators, and frameworks for implementation, monitoring, assessment tools, and methods to benchmark circularity in buildings.

The incorporation of building circularity into technological advancements associated with Industry 4.0 was a focal point, inviting multi-perspective discussions. Additionally, WS1P2 explored the roles of stakeholders throughout the entire value chain, emphasizing their relationships in promoting circular management and feedback systems critical to supporting the transition to a CE.

The event also featured parallel WG meetings for WG1, WG2, and WG3, addressing progress on tasks, plans, collaborative publications, and finalization steps for D2 and other assigned tasks. A dedicated meeting for WG4 focused on communication and dissemination strategies, aiming to enhance CircularB's visibility and outreach.

A significant initiative on the last day was CircularB's inaugural Stakeholder Day, bringing together industry personnel and policymakers. Hosted in the Diputación Provincial of Córdoba, the event showcased stakeholders' experiences with CE practices and challenges. Alongside presentations, activities, including a survey on stakeholder opinions regarding the importance and adaptation levels of CE key strategies, fostered participant interaction.





Beyond research activities, social events such as lunches, dinners, shows, and city sightseeing played a crucial role in fostering bonds among participants. These opportunities facilitated further discussions on workshop topics and paved the way for collaboration beyond the CircularB network.



## Working Group 1 and 4 Meetings, Malta 29-30 Nov 2023

A joint hybrid meeting of Working Groups 1 and 4, took place in Valletta, Malta. The meeting concentrated upon the development of Deliverable 3, a comprehensive report on the technical challenges and barriers to implementing circular strategies. Additionally, discussions were held on the Training School and creating the e-learning platform.

During the first meeting day, Working Group 1 focused on organising the work for Deliverable 3 and initiated discussions on the e-learning platform. The second day was dedicated to Working Group 4, where they presented the goals and plans for the upcoming 2nd Grand Period, finalised Deliverable 2, and explored the development of the e-learning platform. This platform aims to provide educational materials on circular economy topics, catering to basic and advanced users. It will feature presentations, case studies, recorded lectures, webinars, and scientific papers.



The gathering saw a significant turnout of 17 participants, who actively engaged in dynamic discussions and exchanged valuable ideas. The atmosphere was vibrant and enthusiastic, with a strong interest in the topics presented. Notably, the event attracted in-person attendees and drew an online audience from diverse countries, broadening the workshop's impact beyond its physical location. Beyond the academic aspects, the workshop fostered connections and networking among participants. Informal settings, such as shared meals featuring delightful local cuisine, provided a relaxed environment for building meaningful relationships and friendships.

We extend our sincere thanks and appreciation to all the in-person and online attendees for their active participation and valuable contributions, which played a pivotal role in the success of this meeting. Thanks to Ruben Borg and his colleagues from the University who hosted us.

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*What comes next?*

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## Mid-Term Conference and Training School

Our Mid-term Conference is scheduled to take place in Timisoara, Romania, from the 29<sup>th</sup> to the 31<sup>st</sup> of May 2024. The CircularB Mid-Term Conference is being jointly organised with the 4th International Conference “Coordinating Engineering for Sustainability and Resilience” (CESARE 2024). For more information, please visit: <https://circularb.eu/activities/circularb-mid-term-conference/>

The first Training School will be a joint event with our Mid-Term Conference. Taking place in Timisoara, Romania, from the 27<sup>th</sup> to the 31<sup>st</sup> of May 2024, it will focus on circularity strategies and best practices for new and existing buildings. Join us as we embark on an enriching journey to delve deep into the strategies, methodologies, and real-world applications of circularity across diverse industries. For more information, please visit: <https://circularb.eu/activities/1st-circularb-training-school-circularity-strategies-and-best-practices-for-new-and-existing-buildings/>

## Working Group Meeting, Istanbul, September 2024

The last hybrid event of the 2<sup>nd</sup> Grant Period is planned to take place in the beautiful city of Istanbul, Türkiye, from the 12<sup>th</sup> to the 13<sup>th</sup> of September. We intend to discuss the achievements of the 2<sup>nd</sup> year, the development of ongoing activities and deliverables and the expectations and plans for the 3<sup>rd</sup> year of our Action.

## Next Newsletter

Our next newsletter is due to be circulated in June 2024. If you have an item for the newsletter, please get in contact with us, via the website, [www.circularB.eu](http://www.circularB.eu). We welcome notices of conferences, seminars, and special focus journal editions, which have a focus upon the circular economy in the built environment.

### Editors:

Adriana Salles and Philip Griffiths

We would like to thank Rand Askar and Camila Cervantes for contributing to this edition.