



# BIO CIRCULAR CITIES

Exploring the circular  
bioeconomy potential  
in cities

## BIOCIRCULARCITIES

Project presentation

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25 03 22, Living Lab#1 CMNA

# BIOCIRCULARCITIES

Main features, aims, case studies and living labs



# BIOCIRCULARCITIES



**BBi JU contribution:** € 999,893.75

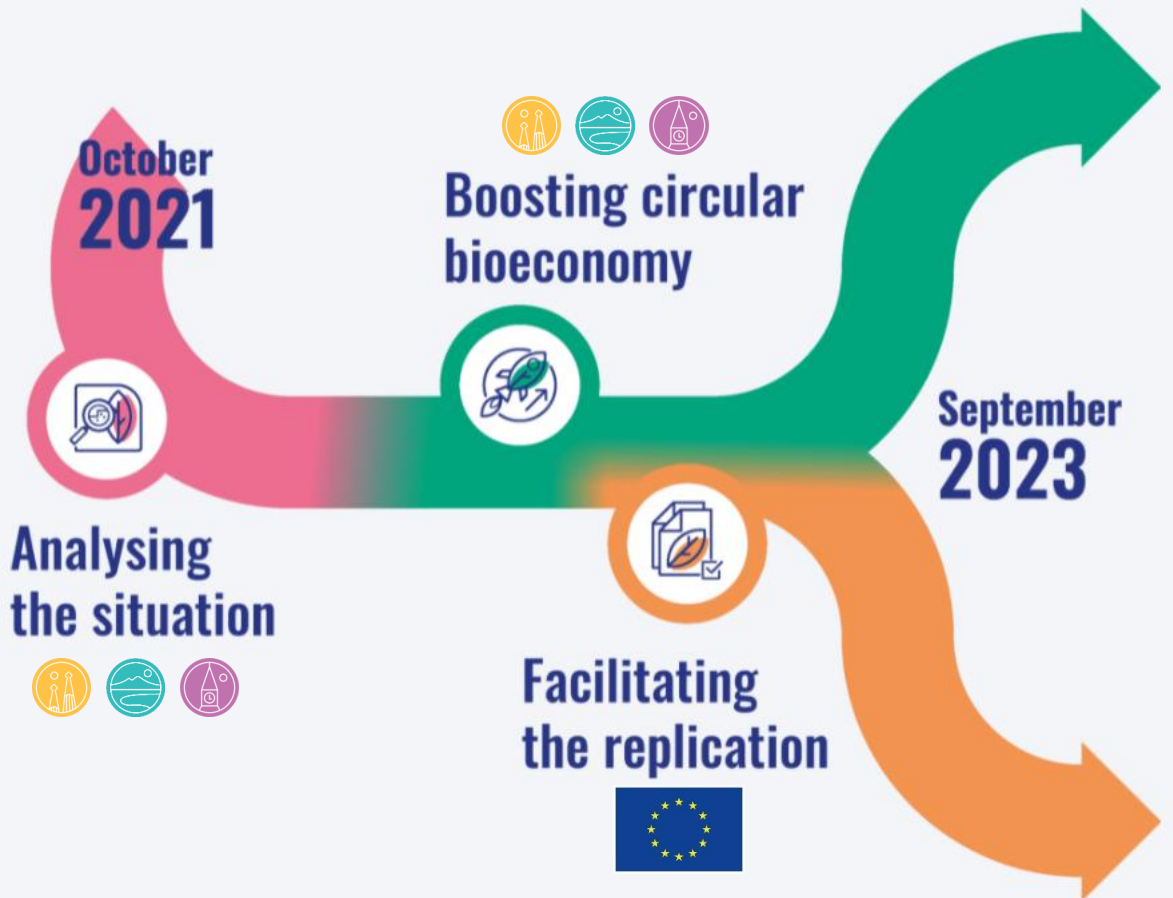
**Type of action:** CSA – Coordination and Support Action

**Project leader:**







**Title:** Exploring the circular bioeconomy potential in cities. Proactive tools for implementation by policy makers and stakeholders

**Pilots:** Napoli (Italy) Barcelona (Spain) Pazardzhik (Bulgaria)



# Consortium Partners

-  2 RTOs
-  1 SME
-  2 Public Authorities
-  3 Non-profit Associations












# Challenge

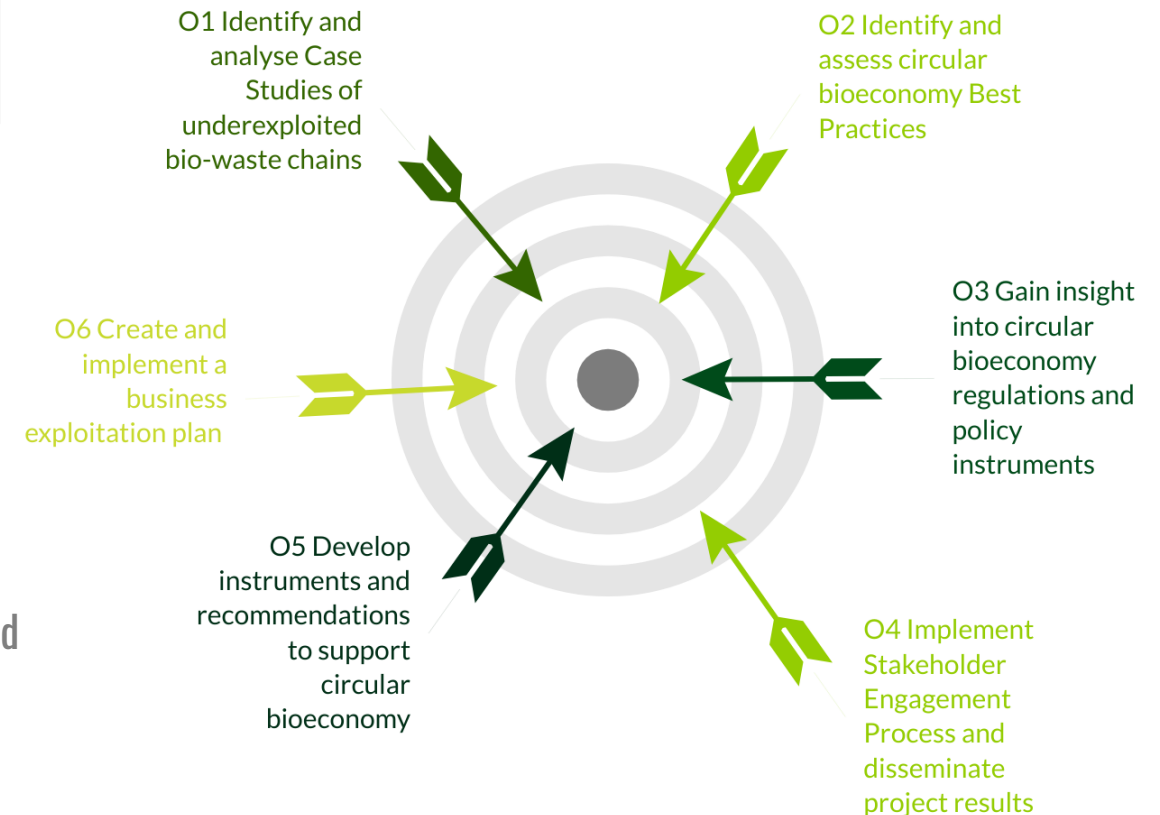
## Green and sustainable transition requires more circular bioeconomy strategies

- Although bioeconomy relies on renewable resources, **there is still much potential to adopt a Circular Bioeconomy approach** for the sustainable exploitation of biological resources.
- This implies a **profound change into the waste hierarchy** leading to conflicts between the different stakeholders involved in the entire value chain of a product.
- A transition towards the Circular Bioeconomy starts from **a change of mindset**: perceiving biowaste as a resource, and not a discarded material.
- This transition requires **reconciling legislation, waste management, circularity and the bioeconomy**.

# Project aim

Supporting the development of **innovative and comprehensive regulatory frameworks and roadmaps** aligned with circular bioeconomy principles, centred on **‘bio-based waste’** and based on feedback from **multi-actor participatory processes**.

- Identify and analyse **Case Studies** in which bio-waste is underexploited and circular bioeconomy **Good Practices**
- Gain insights into circular bioeconomy regulations and policy instruments
- Identify barriers and opportunities for the circular bioeconomy implementation
- Bringing together the **relevant stakeholders** for mapping their different (and often conflicting) visions concerning circular bioeconomy
- Proposing proactive instruments and policy roadmaps for supporting the circular bioeconomy at pilot level and expand it to the European context



# Project plan



Selection of biowaste management chains and mapping of involved relevant stakeholders

LCA and LCC of selected biowaste chains

Circular bioeconomy policy framework and good practices at local and EU level analysis

Analysis of barriers and drivers to implement circular bioeconomy at local level



Identification of potential improvements of current biowaste management chains

Get inspired by circular bioeconomy Good Practices across the EU that could be used as successful examples to use in the pilot areas

Local Living Labs and capacity-building activities

Policy recommendations at local level



Guidelines for implementing biowaste management adopting a circular bioeconomy approach

Webinars on outcomes

Web-based tool to assist policy makers and industry in designing biowaste management strategies



# 3 Pilots



BIOCIRCULARCITIES will focus each time on one specific biowaste value-chain and investigating possibilities to make it more circular.

25 03 2022 – Living Lab#1 CMNA



Metropolitan Area of  
Barcelona (ES)

## Biowaste from MSW

Incentivising quality and quantity of biowaste separately collected in the area of Barcelona and exploring the feasibility of producing added value bioproducts.



Metropolitan City of  
Naples (IT)

## Biowaste from agro-industrial sector

Improving the biowaste management system of a region encompassing urban, agricultural and industrial areas with important biomass production activities and an important food supply chain



Region of  
Pazardzhik (BG)

## Biowaste from agro-forestry sector

Incentivising a larger deployment of circular bioeconomy in a rural region to tackle unexploited bio-waste from agriculture and forestry sectors.





# Strength of the Project

## The strength of the project lies on the following assets:

- Capability to bring together multiple actors belonging to the businesses, research institutions, public authorities sectors to build the **collaborative knowledge** needed to map the different perspectives about legal and market limits/potentials for developing circular bioeconomy.
- Building a **holistic picture on the legal and market barrier and opportunities** in the 3 case study areas to make it possible to check the applicability of the identified best practices and other feasible solutions.
- Formulating **guidelines and policy recommendations**, based on lessons learnt from pilots, to support the implementation of “Biocircularcities” first at local and then at the European level.



# Living Labs and Peer Review Sessions



**Analysing  
the situation**  
in pilot territories



**Boosting circular  
bioeconomy**  
in pilot territories

**Living Labs #1**  
*March 2022*

Current biowaste  
management system,  
challenges and best  
practices

**Peer-Review  
session #1**  
*April 2022*

**Living Labs #2**  
*September 2022*

Regulatory and market  
bottlenecks and sustainable  
drivers to circular  
bioeconomy implementation

**Peer-Review  
session #2**  
*October 2022*

**Living Labs #3**  
*March 2023*

Preliminary set of policy  
recommendations to circular  
bioeconomy implementation  
based on preliminary results  
of LCA and LCC.

Webtool prototype  
presentation

**Peer-Review  
session #3**  
*April 2023*

**Final events**  
*July 2023*

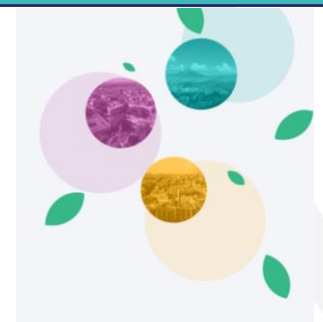
Definitive results of LCT and  
recommendations for  
politicians and entrepreneurs  
for each pilots

Definitive Webtool  
presentation and test



**Facilitating  
the replication**  
in other EU territories

**Final Conference**  
*September 2023*



# Results of the Project

## Main outcomes from the project able to create impact after the end of the project:

- **Set of policy recommendations** for implementing circular bioeconomy strategies based on the feedbacks from pilot experiences and additional analysis, in the format of leaflet or small manual
- **Web-based tool** to assist policy makers and industry in designing biowaste management strategies
- **Circular patterns/guidelines** for biowaste management based existing Best Practices for circular use of bioresources **replicable** in different urban contexts
- Overview of available and future technologies on circular bioeconomy apart from the more traditional composting and methanization with recommendations on how and when to use them
  - **Improving the uptake of bio-based solutions by the market**
  - **Incentivising the valorisation of bio-waste in line with the principles of the circular bioeconomy**
  - **Promoting the development of successful circular bioeconomy strategy in EU territories**



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## Thank you

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