



# Webinar: stakeholder engagement & citizen awareness

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Biowaste cross-project webinar serie (Scalibur, ValueWaste, WaysTUP, HOOP)  
Online, 19<sup>th</sup> May 2021



**WaysTUP!**  
VALUE CHAINS FOR DISRUPTIVE TRANSFORMATION OF URBAN  
BIOWASTE INTO BIOBASED PRODUCTS IN THE CITY CONTEXT



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 818308.

# AGENDA

1. Context: the WaysTUP! project
2. Behaviour change for the bioeconomy
3. A model for change: the MBAA
4. Preliminary results



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# WAYSTUP!

Presentation of the project



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*"demonstrate the establishment of new value chains for **urban biowaste utilisation** for the production of higher value purpose products (i.e. **biobased products**, including food and feed ingredients), through a multi-stakeholder approach in line with circular economy"*

- GOAL = turning biowaste into a resource
- By focusing on the full value chain of biowaste and understand its functioning.



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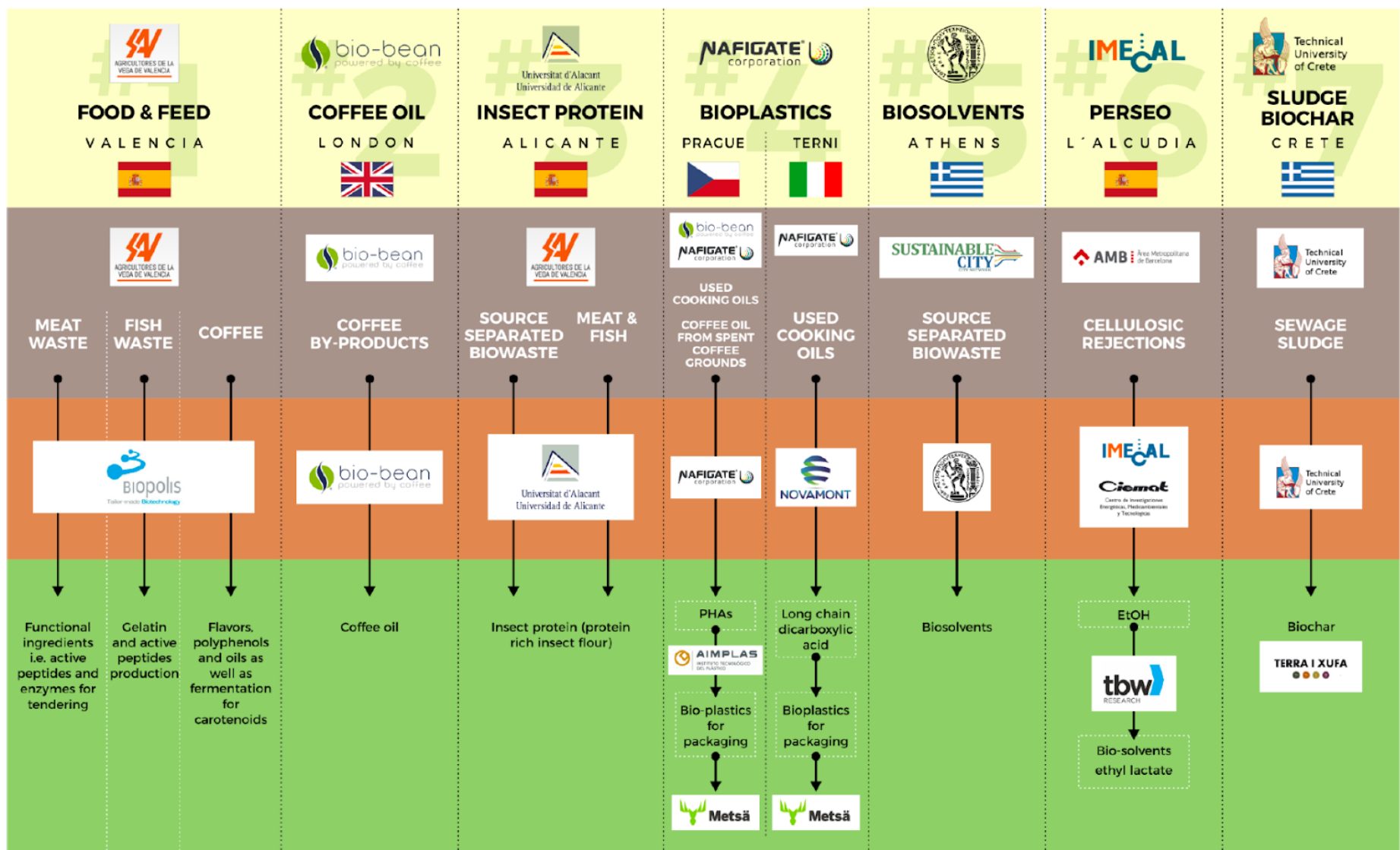


Figure 2: The WaysTUP! PILOTs



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## Objectives:

- (1) enhance the **participation** of citizens in the separate collection of urban biowaste;
- (2) improve the current **perception** on urban biowaste as a local resource;
- (3) improve customer **acceptance** of urban biowaste derived products.



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# BEHAVIOUR CHANGE FOR THE BIOECONOMY

The role of citizens (and businesses) in the circular economy



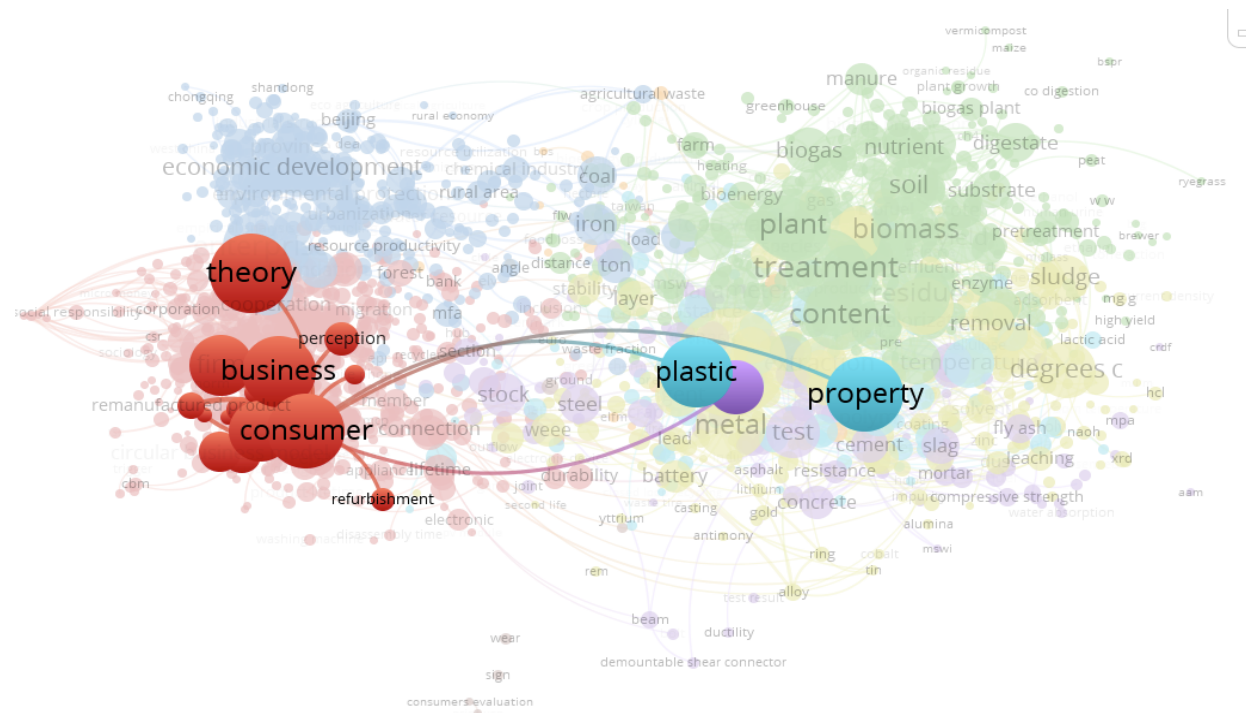
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- Current lack of social focus in the Circular Economy



- \*key term search based on the term “Circular Economy” on the database Web of Science leads to 5172 results (in March 2020), represented through a VOS map

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# Behaviour change for the bioeconomy

- Current lack = major challenge for the transition towards the CE!
  - ! inadequate and insufficient understanding of the citizen in this new system
- General public has limited awareness & understanding of the concept of CE, and does not have sufficient info regarding their role in the loop (Liu & Huang, 2014).
  - ! lack of public awareness/involvement = issues in the implementation of the CE initiatives



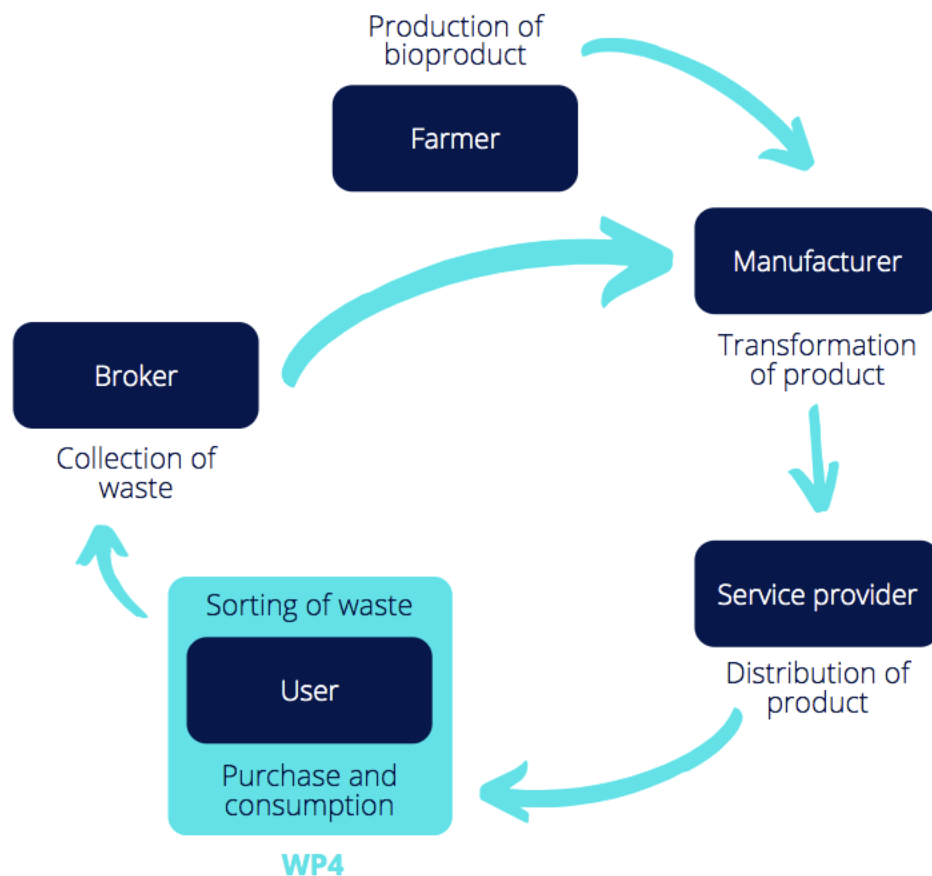
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# The user's role in the bioeconomy



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# Behaviour change in the bioeconomy

- Contribute to a **sustainable economic system** through reducing the consumption footprint & increasing the circular material use rate

→ by increasing the:

- (1) Selective sorting of biowaste
- (2) Acceptance of biowaste as a local resource
- (3) Acceptance of biobased products



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# THE MBAA

A model for change



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# The MBAA: Modular Behavioural Analysis Approach

- Developed by imec-SMIT, VUB
- Supports and implements the design of behavioural change **interventions**
- Iterative approach
- Applied in different projects:
  - HackAIR
  - City of Things
  - Health at work



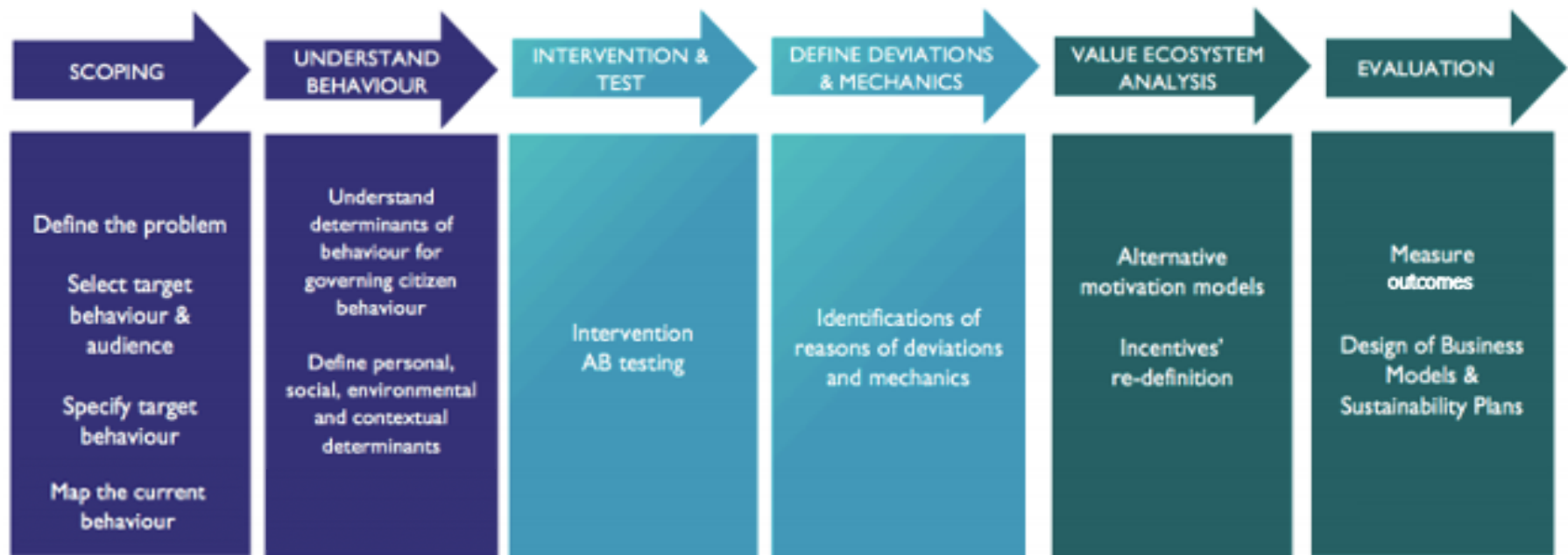
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# The MBAA: Modular Behavioural Analysis Approach



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# PRELIMINARY RESULTS

Phase 1 – Scoping

Phase 2 – Understanding behaviours

Phase 3 – Intervention & test



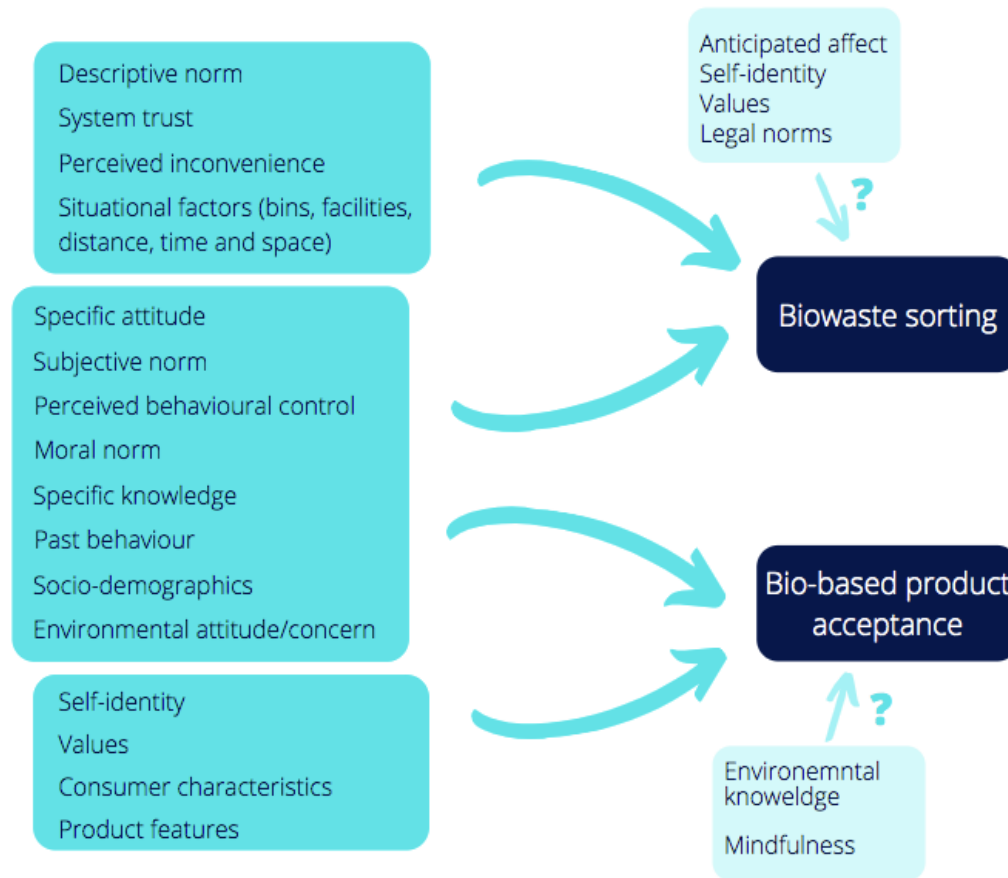
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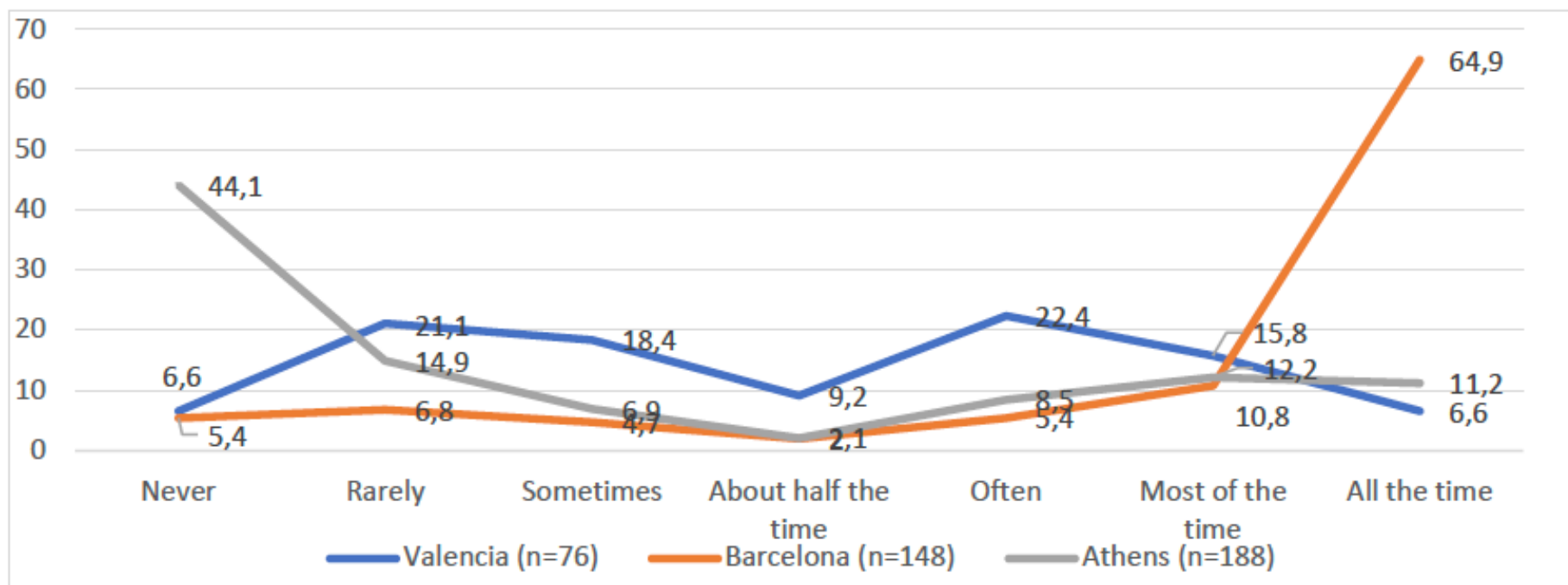
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# Phase 1 - Scoping



## Phase 2 - Understanding behaviour



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# Phase 2 - Understanding behaviour

	Athens	Barcelona	Valencia
Attitude	High	High	High
Subjective norm	Medium	Medium	Medium
Personal norm	High	High	High
Moral guilt	Medium	High	Medium
Descriptive norm	Low	Medium	Low
Perceived behavioural control	Low	High	High
Self-efficacy	High	High	High
Perceived personal responsibility	Medium	Medium	High
Awareness of consequences	High	High	High
Perceived convenience	Low	Medium	Medium
System trust	Low	Medium	Medium
Instrumental knowledge	Low	High	Low



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# Phase 2 - Understanding behaviour

- **Conflict** between the locus of the advantages and disadvantages linked to sorting:
  - Advantages = external: environmental protection, better future, ...
  - Disadvantages = internal: time, space, effort, inconveniences, ...
- **Challenges:** lack of bins close by, time consuming, lack of practical information, ...
- **Desires:** information on what happens next, certainty of it, why it is significant, ...
- **Communication:** flyers, social media, email, Instant Messages



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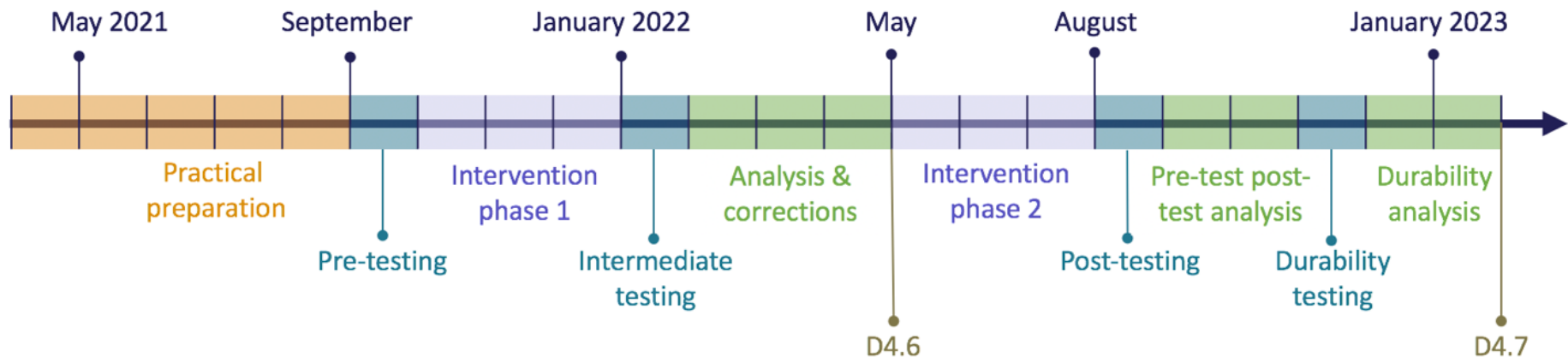
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# Phase 3 – Intervention & Test

## Randomised control trials

- Reliability
- Speed of change
- Particularism
- Generality
- Durability



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# Phase 3 – Intervention & Test

- **Environmental restructuring** through stickers and posters
- **Persuasion** through social media posts
- **Behavioural modelling** through video-clips;
- **Incentivisation** through badges;
- **Enablement** through provision of bags and bins;
- “Join the loop” **events**



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# Stickers & posters (drafts)



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# Social Media – norms (drafts)




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*Join the loop!  
Sort your biowaste*



*"1 out of 3 of your neighbours are already sorting their biowaste. **Join your local community** and sort your biowaste!"*




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*Join the loop!  
Sort your biowaste*



*"Athenians believe that sorting and recycling biowaste is the right thing to do. Are you already sorting your biowaste? **Join the loop!**"*



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# Social Media – trust (drafts)

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*Join the loop!  
Sort your biowaste*



*"When you sort your biowaste, you make sure that its nutrients are captured and turned into valuable products such as biofuel.  
**Join the loop!**"*

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*Join the loop!  
Sort your biowaste*



*Once you have sorted your biowaste, it is picked up by a truck from (name of stakeholder) which takes it to (name of the stakeholder) where it will be treated. After treatment, your biowaste is transformed into (name of the biobased derived product). **All of this is possible because you joined the loop!***

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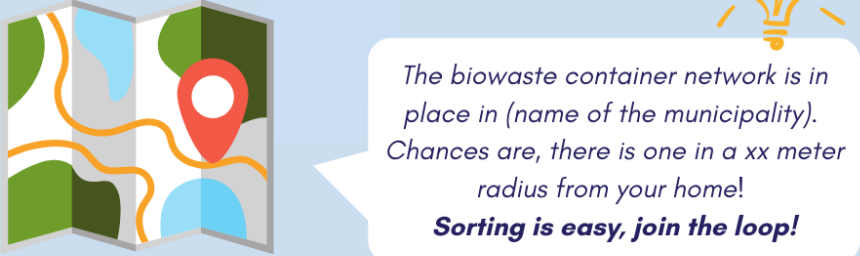


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# Social Media – tips (drafts)




## Join the loop! Sort your biowaste



The biowaste container network is in place in (name of the municipality). Chances are, there is one in a xx meter radius from your home!

**Sorting is easy, join the loop!**



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## Join the loop! Sort your biowaste



Little flies near your biowaste at home? Store it in a container with a lid and avoid placing it in the sun.

**Sorting is easy, join the loop!**



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# Badges (draft)



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# Thank you for your attention!

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