

# Recovery and utilisation of nutrients for low impact fertiliser



## Deliverable 6.2 – Report on Social Engagement Actions – Ghent

Communication framework and social engagement actions in the Run4Life project. Recommendations for demo-site Nieuwe Dokken in Ghent, Belgium.



### This factsheet

This factsheet provides an understanding of the social context and social engagement strategies to foster acceptance for the Run4life technology solutions, specially related to Ghent, Belgium. It summarises project Deliverable 6.2, that relates directly to all activities in the project that explore public acceptance and engagement strategies and aims to provide insights into the communication work package (WP8). The social engagement strategies focus on overcoming the social barriers to the technology and the uptake for water and nutrient reuse. The factsheet also provides effective communication and engagement strategies and communication frameworks with a set of recommendations for future engagement with the stakeholder groups in Ghent.



### Goal

The goal of the Run4Life project is to recover nutrients from domestic waste streams for its subsequent application in agriculture as a fertiliser. Run4Life proposes a new technological concept for wastewater and organic kitchen waste treatment and nutrient recovery. Success in these new circularity models requires a change in thinking from the stakeholders involved and those that have interest in the concepts, considering the technical, organisational, social and governance dimensions. To achieve these improved interactions an understanding of how people, groups, organisations, and networks currently interact and perceive nutrient recovery and reuse in the context of wastewater and organic kitchen waste management was required.



# Objectives and Approach

## Objectives

To achieve an understanding of the acceptance profiles, the activities were broken down into three main objectives:

1. To identify the key stakeholders' expectations from the project with different roles and different levels of impact (regional, national, global impact) and to map the network of stakeholders to visualise the levels of interaction with regards to the technology at the demo-site.
2. To develop the social profiles of the relevant stakeholders based on collected data of the stakeholders' attitudes, opinions, and behaviour in relation to the Run4Life technologies.
3. To provide recommendations for the project communication, and to create engagement and social empowerment strategies.

## Approach

The analysis was undertaken at four demo-sites in Europe, located in Ghent in Belgium, Vigo in Spain, Helsingborg in Sweden, and Sneek in the Netherlands. At each of the sites, groups of stakeholders have been addressed through interventions and activities (Figure 1). The stakeholders have been divided into three groups to categorise their proximity to and involvement with the Run4Life project and technologies:

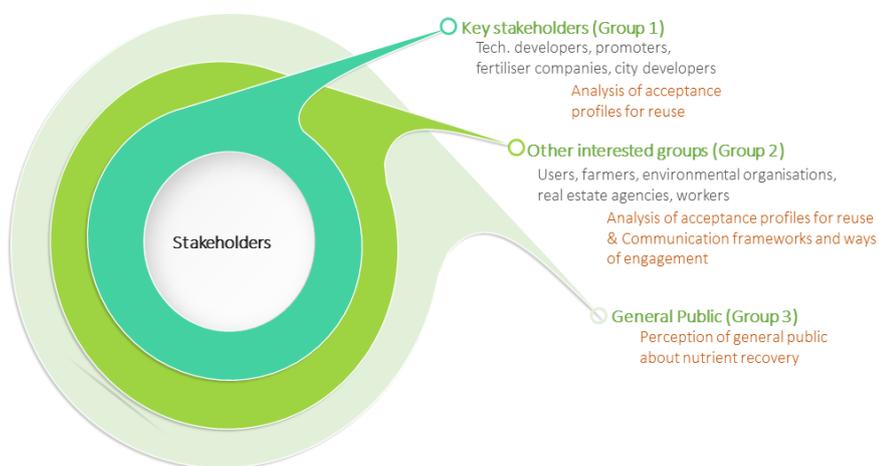


Figure 1: The three stakeholder groups and the respective analyses.

- **Group 1:** The key stakeholders closely associated and directly involved with the project. This group is considered aware of the project.
- **Group 2:** Other interested groups with direct or indirect interest in the project. This group is considered some-what aware of the project.
- **Group 3:** The general public in the immediate regions surrounding the respective demo-sites. This group is considered unaware of the project.

For group 1, focus groups were held with the aim to analyse the acceptance profiles for nutrient reuse technologies of the key stakeholders and other interested groups.

For group 2, focus groups were held to define the best practices for **communication frameworks and ways of engagement**.

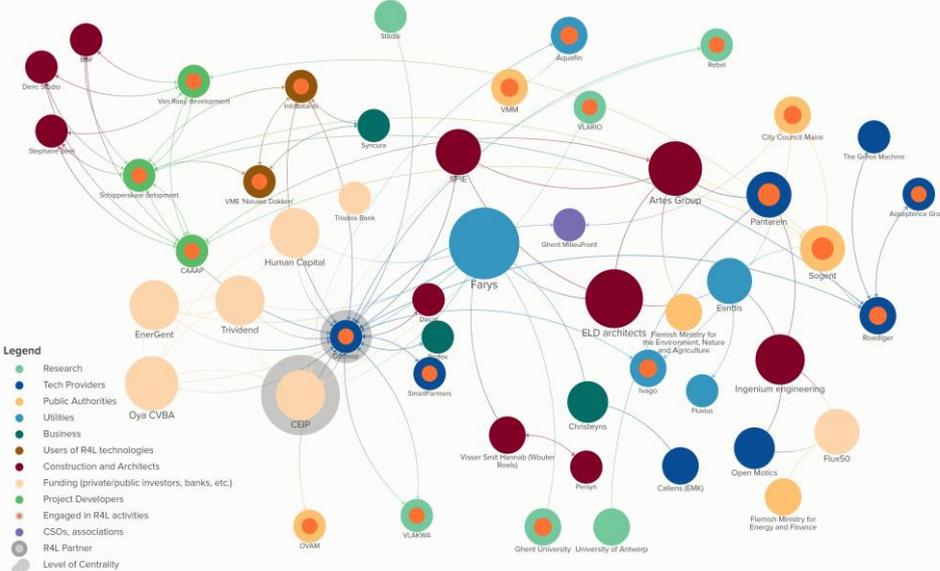
For group 3, specifically in Ghent, they could not be directly addressed, as this activity was not initially foreseen in the grant agreement with resulting budget constraints. However, several social empirical studies that have emerged from Ghent, concluded that no further investigation into this group was necessary as the current research data could be used for the Run4Life project.

The analyses from all groups provided the data necessary to update the **stakeholder maps** following the qualitative approach of Social Network Analysis (SNA)<sup>1</sup>.

<sup>1</sup> The process of investigating social structures through the use of networks and graph theory

# Key results

Figure 2: Ghent stakeholder map, available [here](#).



## How are the stakeholders connected?

Figure 2 shows the top five connectors are **DuCoop, Schipperskaai, Development, Farys, CEIP** and **CAAAP**. The closest part of the network surrounding these organisations show they are well connected, but the network opens up with several outliers with only few connections to the remaining network (e.g. Stibbe, VMM, Green Machine, Aqseptence Group, Flemish Ministry for Energy and Finance, University of

Antwerp, Callens, Fluvius, OVAM, Persyn). The centrality metric indicates the project developers and DuCoop as the centralising entities (i.e. bringing the network together). The main developers of the technologies are principally connected with the public authorities, and the project developers.

## What are the perceptions of the stakeholders in relation to the technology systems?

The group 1 stakeholders made some references to the advantages of Run4Life technologies (green spheres in Figure 3). They largely highlighted the added value of the technology. They also frequently referred to the social willingness to use the technology and the environmental benefits associated with its implementation. As for the disadvantages (orange spheres), the largest number of references were related to the associated drawbacks of the systems especially the noise of the vacuum toilets or the level of effort required by the user to use the technology.

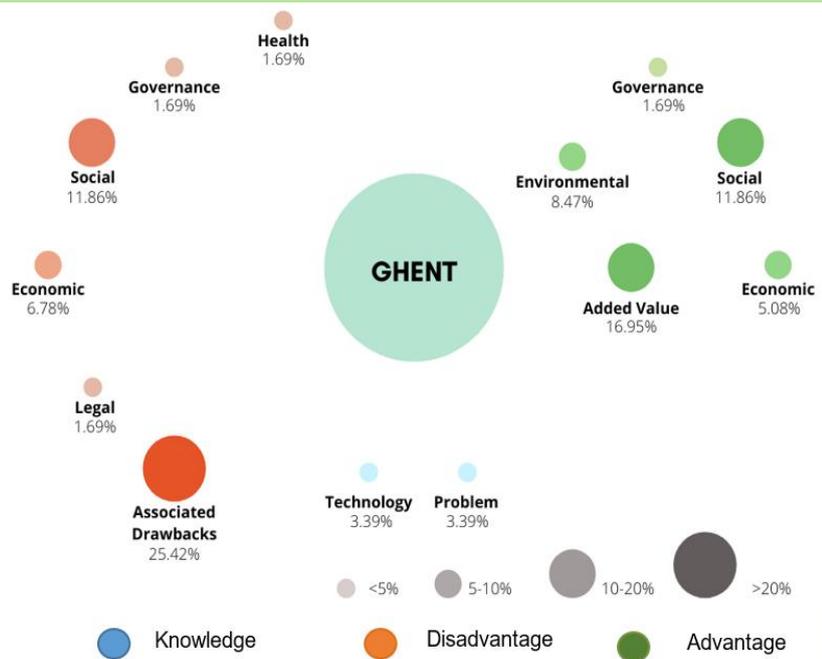


Figure 3: percentage of mentions of the codes in the Ghent focus group.

The concern of social reluctance to implement these technologies was also frequently mentioned.

## The Run4Life consortium

The stakeholder maps were created with input from all the partners of the Run4Life consortium.



# Recommendations to foster RUN4LIFE technology acceptance

## Additional perception analyses

- The **stakeholder analyses should be elaborated** towards a more comprehensive SNA through a **questionnaire** to all actors who have not yet participated in Run4Life activities to create a high-level overview of the network and to know the extent of the connections outside the demo-site.
- A **reflection session on lessons learnt** from other social research activities in the field should be established, focusing on social perception of the Ghent technologies from the different actors, which should result in a co-produced position paper.
- A mechanism to allow a **systematic gathering of user perceptions** from the inhabitants to feed into future communications actions and dialogue should be established.
- Costs have been perceived as an issue of concern for the implementation or indeed for the Run4Life technology as a whole.



## Effective communication and engagement strategies

- **Communication should be targeted** based on the relationship between stakeholder and technology.
- Users and stakeholders with high community involvement should be **involved from the beginning**.
- **Information should be more digestible and visual** especially for the users of the technologies, i.e., graphical material, educational videos, and infographics.
- Information sessions and social and technical gatherings should be held at the plants to further inform the stakeholders.
- **A dedicated communication channel** should be established for expressing and responding to concerns, managed by a social facilitator expert and an academic representative.
  - **The relevance of the demo-site** should be stressed to the inhabitants and a **co-creative communication process** should be used to show how expressed concerns are being addressed to improve the systems.
  - **The associated drawbacks** of the technology, i.e., odours, noise, leakages, and **the need for circularity should be clearly acknowledged and communicated** with the users of the technologies, using “stories” to show the importance of user engagement.
- The roles and needs of the more influential stakeholders with higher SNA metrics scores should be identified.
- Communication material and data should be shared with stakeholders in groups 1 and 2 to indicate the environmental benefits from the use of the systems and thus reinforce the perceived strength of the added value provided by the system. Selected KPIs can be periodically shared.