

Co-Design

BOFA is a municipal waste management entity on the island of Bornholm, Denmark, which has a goal to be without waste by 2032. In order to reach the goal, a separate collection of household waste is a necessity, but to introduce a new waste collection system it is important to ensure that it is aligned with local interests, values, behavior, norms, etc. among the populace that is expected to make use of these systems. For this reason, a co-design process with citizens is important to ensure a high social acceptance of new solutions.

Public involvement and commitment have been highlighted as crucial for the success of the European Green Deal and ensuring lasting changes. Citizens are a major driving force of the transition; therefore, Living Labs in Bornholm contribute to the objectives set in the broader political landscape.

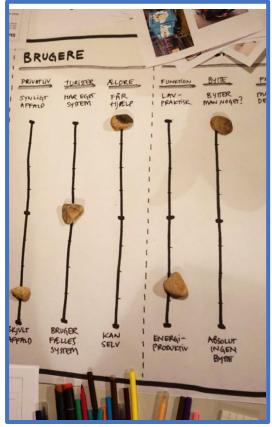
The co-design process was carried out in the project with the assistance of a design team at BOFA consisting of staff at BOFA as well as intermediaries with specialized competencies within various aspects of co-design.

Co-design is a novel approach for waste authorities (and public

authorities in general) to come up with solutions for the target groups (beneficiaries) that they service. Instead of a traditional top-down decision-making and solution development process, codesign involves citizen interaction, participation etc. through carefully nurtured processes using design thinking as an active element in e.g. field activities, workshops, scenario mapping, ideation, prototyping, feedback. In the project, co-design activities were carried out prior to the set-up of the Living Labs e.g. a "design sprint" inspired process in one town, and a series of structured focus group sessions in informal settings in another town as well as public meetings. Especially the design of the shared waste collection system prototypes was emphasized. Since no technologies are involved in the co-design process, the estimation of TRL is not relevant.

In regards to the ISWM framework, the focus of co-design activities lies within the engagement of stakeholders, foremost, the citizens which would be one of the end-users of the new waste collection system. Many experts were invited to give their contribution and viewpoint on the co-design process, however, there was an inability to find a common solution. Through the lens of waste system elements, the co-design process put emphasis on the generation and separation of waste and waste collection.







Furthermore, such aspects as "technical", "environmental/health", "financial" and "socio-cultural" were considered in order to design a solution that fits in the local context and is socially accepted. Policy and institutional aspects can be argued to be out of the scope of the WASTEMAN project, however, lessons from the project will be applied in the future work at BOFA, for example, in preparation for a new waste plan to create a transparent framework which promotes sustainable waste management, as well as, encourages the involvement of stakeholders and promotes intersectoral interactions.

BOFA and public authorities in general stand to gain massively from building up competencies in-house with respect to codesign of solutions that impact citizens' daily lives and routines. This is because the approach addresses a possible or perceived democratic deficit in traditional public authority decisionmaking. However, it requires an organization to be able to have the required competencies and be able to operate without using a traditional mode of decision-making and solution development (i.e. shift its way of thinking).

Lessons learned:

- It was difficult to discuss technical and detailed issues in a public forum, and the complexity added to the misunderstandings in the conversations between professionals and citizens, therefore an improved method for such communication should be developed.
- 2. The traditional panel debate discussions created a lot of tension with a "you against us" type of discussion between citizens and the waste company BOFA running the project. Therefore, different meeting formats were preferred ranging from meetings with the boards of community organizations, conferences, panel debates, creative workshops, walk and talks, a movie screening and exhibitions.
- The combined communication to participants through own media (Facebook +web), direct mails and public posters with press coverage worked well. The latter in particular seemed to increase attention and the positive attitudes among citizens toward engaging in the Living Labs.

ISWM Framework Positioning of the Case Story

Stakeholders: Citizens, Public Authorities

Waste System Elements: Generation and Separation, Collection

- Aspects: Technical, E Financial, Socio-cultural
- Environmental,



