Newsletter
Nov 2019

TOP STORY
Co-design methodology a possible solution.

Traditional service design based on the manager/owner vision is no longer enough to create a valuable service. Creating a methodology that directly involves multi-stakeholders and final users outside of the design team allow designing real service scenarios, better success metrics, and value exchange mechanisms that are aware of the real context.

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Co-design methodology a possible solution.

The traditional chain of service design - ideate, design, implement - based on the service manager/owner vision is no longer enough to provide processes and services that meet current scenarios. The phases of the ideation and design are the steps in which the value creation starts and it cannot take place separately from the "place" (market, society) where it will be exchanged. This can create complex service procedures for the final user like FIGURE 1.

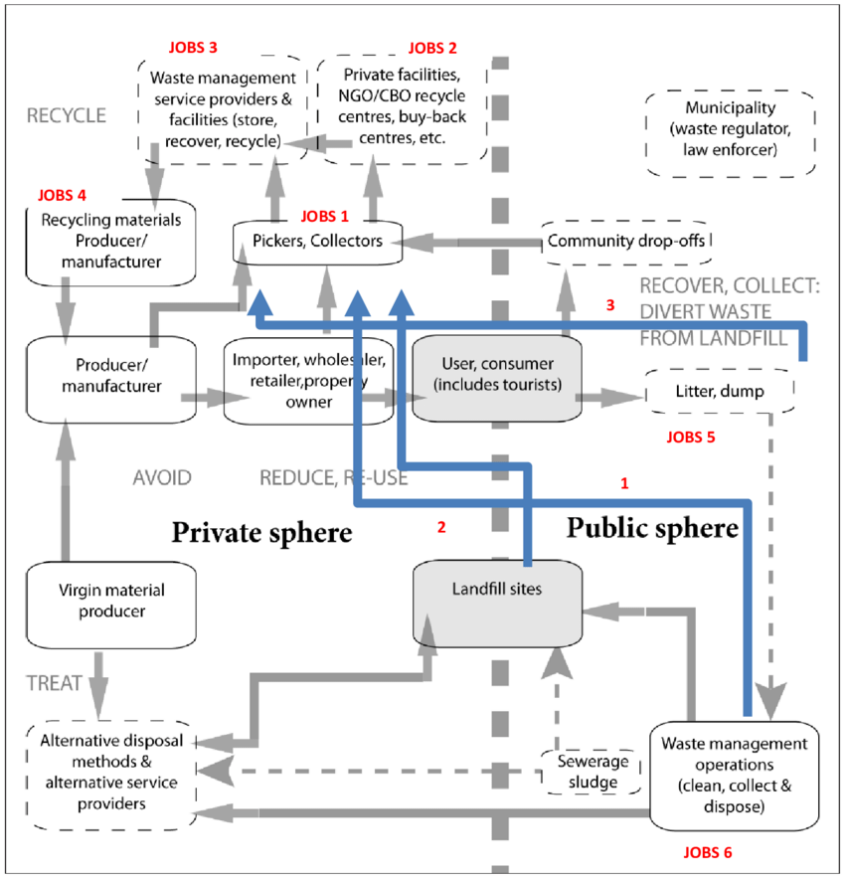

FIGURE 1 Example of classic complex service. Designed functional centred instead user centred.

The solution to the disconnection between the final user and the provider is to change to a new paradigm that shifts towards a participatory approach. This co-design methodology implies to include persons and contexts from outside into the design team, allowing planning activities and phases that directly entail multi-stakeholders participation. The new events provide the designing new service scenarios, set up and

define more sensitive success metrics, performances, and value exchange mechanisms that do not come directly from the “groupthink,” but are aware of the real context.

The new paradigm

Design approaches commonly applied in the field of innovation, such as the Service Design and the User-Centered Design, share the focus on the participatory design (or co-design), having events that actively involve stakeholders and end-users in the design process. This type of approach in FIGURE 2, where the "Double diamond of the Design Thinking" highlights two groups that have to be iterated to build at the same time the result and the knowledge that was not known beforehand by the experienced experts.

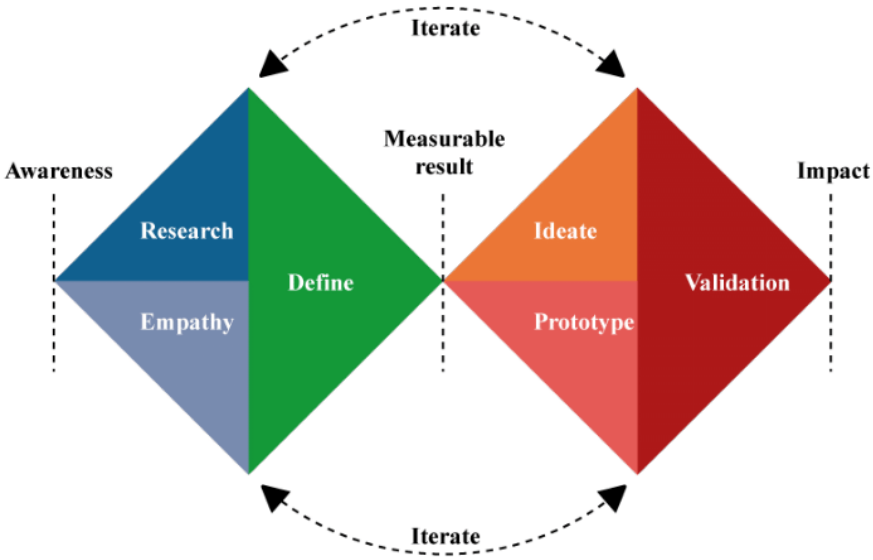

FIGURE 2: The Double Diamond of the Design Thinking (Source: Santos, A. et al., 2017)

Co-design implementation is a complex process since it requires multiple steps, thus this a careful planning and good understanding of the final context. In co-design methods, participants are also considered designers involved in the dialogue on a common problem and possible solutions that should evolve into prototypes. According to Andrew Rasiej, “Building ‘with and not for’ is a critical principle of what we think of when we’re trying now to define civic technology”.

The collaborative design activities allow us to grow the design team’s vision and develop a situated knowledge of complex domains. Moreover, the engagement of end-users helps in the design of usable (effective, efficient, and satisfying) solutions.

Co-design approach in CO3:

In the early phase of the CO3 project (WP1), the co-design activity aims at defining high-level requirements for services and technologies to be piloted. Those requirements will be in terms of scenarios, use cases, and others specified by the direct and indirect users involved. The results will be in terms of a platform that integrates different technologies to enable participatory processes, such as co-creation, co-production, and co-management processes (WP2->WP5). The general approach is depicted in FIGURE 3.

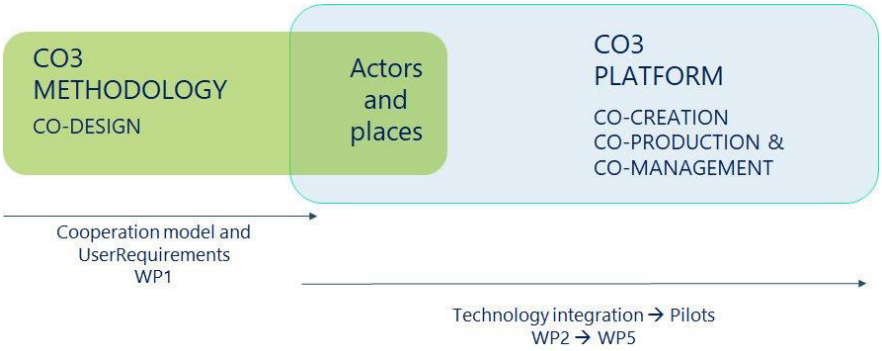

FIGURE 3 Mapping of the participative approach in CO3 project

<u>CO3 Methodology requirements</u>

The methodology has been stipulated to focus on five pillars:

User-centered design (UCD): Taking a user-centered perspective, the co-design methodology has to include three core principles. The active involvement of the final users to obtain a real view in an authentic context. Multidisciplinary collaboration due to its expertise backgrounds and several iterations processing the feedback to refine the solution by the time.

FIGURE 4 User centred design example.

Participatory approach: By the involvement of the final and external stakeholders at the co-design activities from the start, the services scenarios will be coherent with the final context. The CO3 methodology involvement grows progressively from a first-team to the final public of participants.

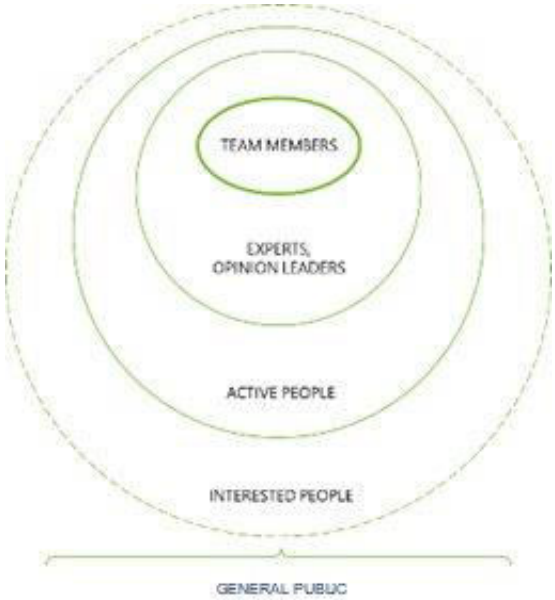

FIGURE 5 Participant list: A progressive grow from team members to the general public.

Design oriented methodology:
This methodology is an iterative process that includes exploratory, ideation/conceptualization, and prototyping activities. In all the phases, the different participants are involved in proposing a solution cooperatively. This solution will be a service scenario, blueprints, or prototypes with varying levels of maturity, proving as a base for further specification and development.

Qualitative data driven approach:
This approach provides a better way to capture the needs, barriers, skills, and knowledge sharing among the participants. As a qualitative method, the data collection is more complex in terms of the following analysis but provides a richer information that can be used to build a knowledge base for other actions and decisions in the following design phases.

Modular and customizable method:
The CO3 methodology has to be customizable, therefore, modular. Because different recommendations and limitations are depending the pilot and use-case, this brings closer the tools developed in the methodology to the final pilots, creating a direct link between co-design and pilot phases.

The co-design is a must step in the CO3 project to retrieve the necessary feedback for the integration of the new technologies having the vision of the final users. If you want to know more about the methodology, continue reading the **"CO3 Co-Design Methodology"**

Tags: CO3 project – Co-design – User Centred Design – Design Thinking

CO3 Co-Design Methodology

The methodology has three core activities involving PA and different stakeholders to present the project, and assess any technical issues: technology focus meetings and demonstrations that provide an overview of the opportunities created by each technology. Knowledge share meetings with face2face groups to collect information about the pilots' scenarios, local policies, needs. The co-design workshops with the participation of stakeholders using the CO3 toolkit.

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CO3 Co-Design Methodology

The methodology has three main blocks presented in FIGURE 6 with the objective of present the project and assess any technical issue by tech experts to public administrators and different stakeholders, including citizens.

First meetings inside the consortium include public administration like municipalities. Then, the second block devoted to the co-design workshops with final users and public administration. Then, in the third phase with the workshop results, analyze the data qualitatively, and also obtain indirect stakeholder information via questionnaires. This step is crucial to validate that the gathered service design, barriers, and requirements fulfills the final context. The fourth step, which is the final deploy and integration, is where the co-designed service is tested and where the necessary changes are done via iteration.

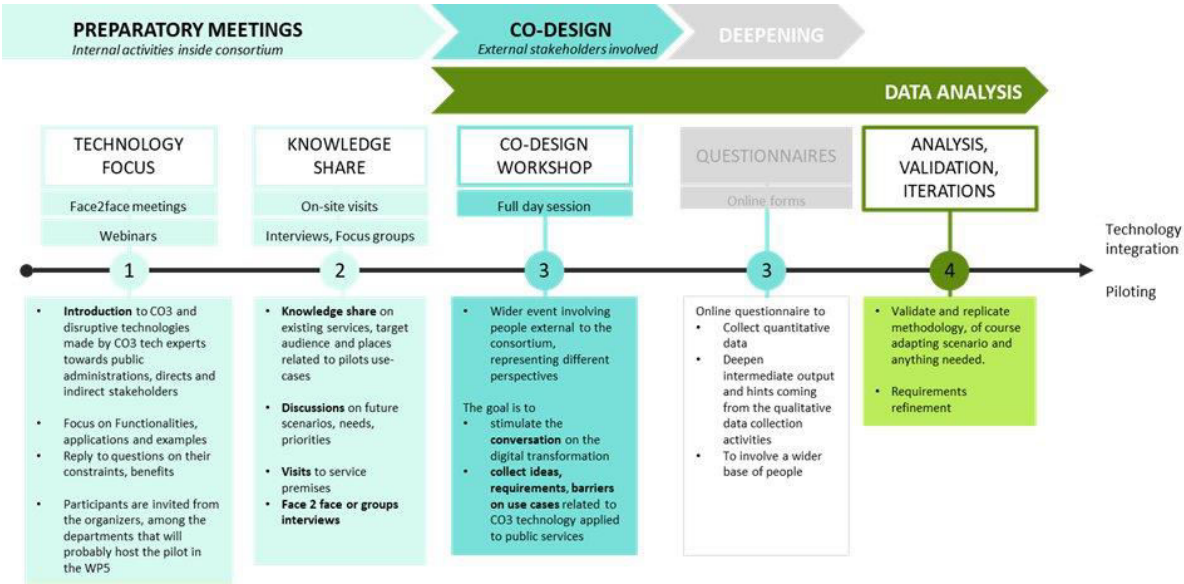

FIGURE 6 CO3 Methodology Roadmap

The CO3 methodology has some core activities of different types that are mandatory:

Technology focus: To provide an overview and the opportunities of each technology, a set of meetings, demonstrations, and webinars are taking inside the consortium, including the three principal municipalities, which are the pilots.

Knowledge share: The meetings, face to face interviews, groups, and on-site visits are important to collect the information about existing services, local policies, needs, resources, and other barriers found on the three scenarios of the pilots.

Co-design workshops: Without those and the participation of the final users, stakeholders and public administration are impossible to design a service that is perceived as useful by the end-user. Also, it helps to identify the use case of each scenario.

Some of these activities required support materials that have been collected into the "CO3 Toolkit". The CO3 Toolkit is composed of several elements, for instance:

Project Vision and CO3 Technologies introduction: A collection of slides that will be used in the face to face meetings and webinars. It contains the summary of the project and an introduction to each of the CO3 technologies: blockchain, liquid feedback, first life, and gamification.

A guide to interview CO3 Stakeholders: It is a guide with materials to know better the new public to be addressed. Define the venue, the participant's profile, interests, service provided/used… this guide is useful to detect potential stakeholders that can make a difference in the project scenarios like associations, etc.

Questions list: These are specific questions related to CO3 project technologies, user's habits, and all the information that can be interesting to segment and identify final user profiles. The objective of these questions is personalizing the service.

Co-Design Workshop

The workshop is usually one full-day session, but in some cases and depending on the number of the groups, it can take up to two days.

The participants should be as heterogeneous as possible, involving internal and external persons of the CO3 consortium. Heterogenial groups will create more abundant information from multiple perspectives. It is essential to balance the competences on each group, including policymakers, citizens, tech experts, etc. Each of those groups should be supported by one facilitator of the CO3 consortium, which is aware of the technologies and the objectives. One individual per group should take the role of the recorder to draw and write the content into the printed CO3 material. FIGURE 7 summarizes the previous information.

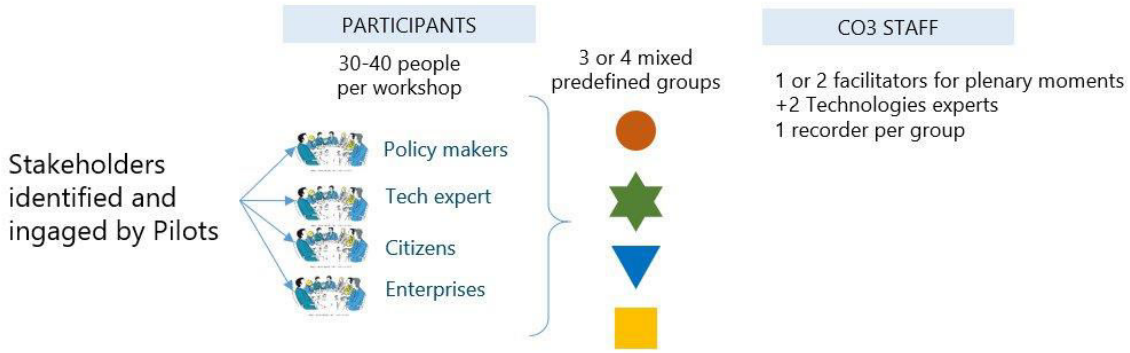

FIGURE 7 Co-Design Workshop, groups balancing

The data is collected before the workshop, where the recruited participants fill the question list and during the workshop with a different canvas (ECOSYSTEM, ACTORS PORTRAIT, etc.) filled by each group. Also, it is essential to note and capture where and how the CO3 cards are used inside of those canvases.

The used elements of the CO3 toolkit are:

ECOSYSTEM CANVAS: This canvas, shown in Figure 8 , is derived from Platform Design Canvas. This is used to identify the three types of stakeholder profiles. During the realization, the moderatos motivate the participant to put themselves in the paper of a public administrator/employee that is in one of those profiles.

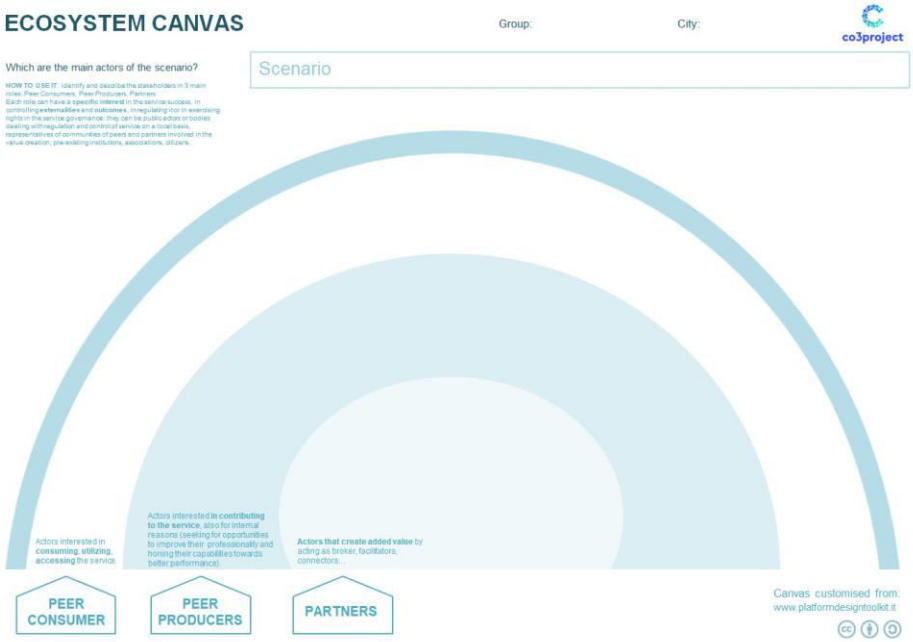

Figure 8 Ecosystem canvas: The mapping of local stakeholders.

ACTOR PORTRAIT: This tool in Figure 9 is inspired by the Platform Design Canvas, analyses the needs, resources, barriers of main stakeholders identified in the previous phase of the analysis. This process is repeated for each one of the three previous profiles; consumer, producer, partner.

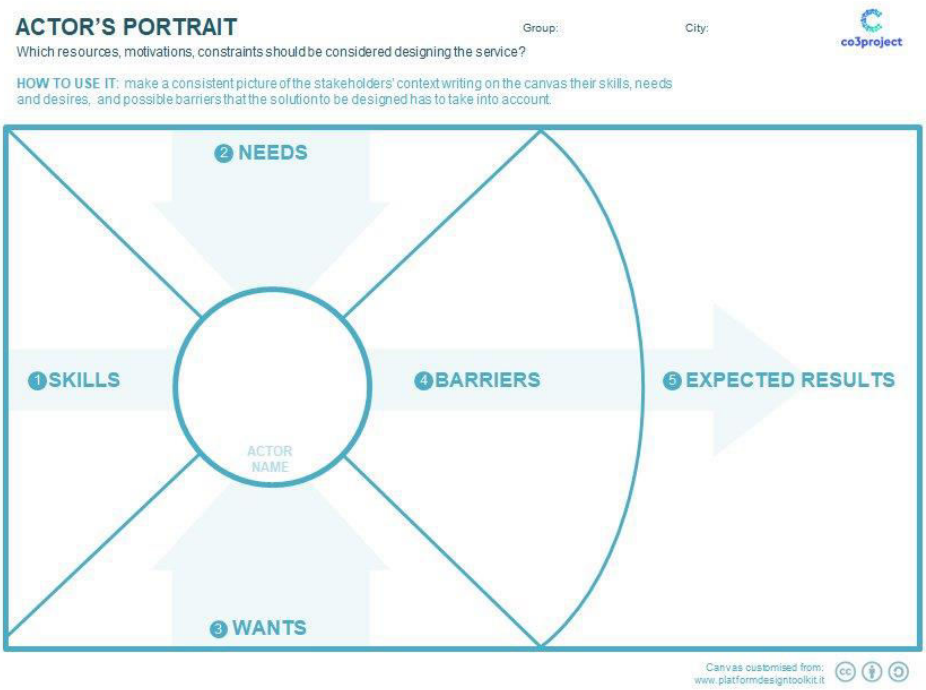

Figure 9 Actor's portrait: Where the skills, needs, and barriers are collected.

EXCHANGE FLOW CANVAS – This Canvas in Figure 10, focuses on the types of transactions of resources (tangle or intangible) that are exchanged among the actors.

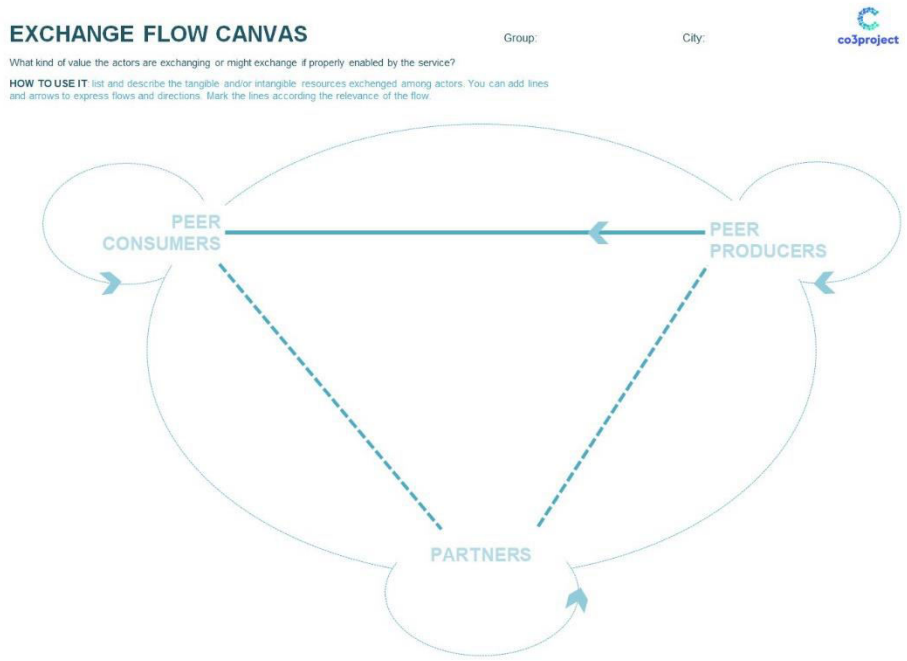

Figure 10 Exchange flow: What resources / values are being exchanged?

VALUE PROPOSITION – This template in Figure 11 helps to define the value proposition of the created service. Here is where the enabling technologies of CO3 are included with the CO3 card deck. The value proposition template contains a summary of why the service is needed, what is improved, and who will benefit from it.

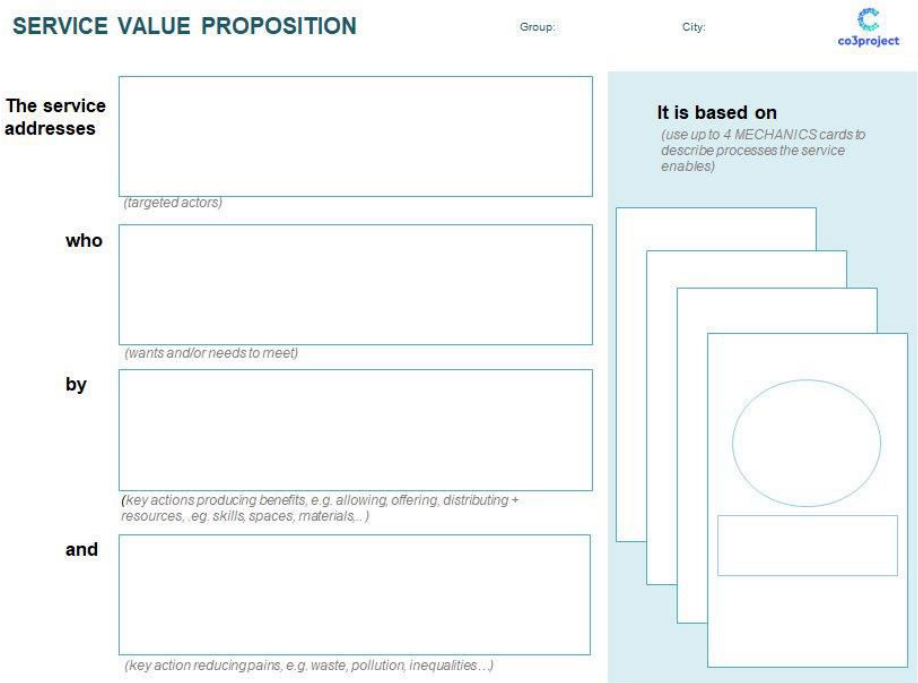

Figure 11 Template to define the added value of applying CO3 technologies to a service.

EXPERIENCE CANVAS – This is based on the User Journey, as shown in Figure 12. It consists of a scheme with fields corresponding to a typical sequence of steps a person experiences when entering in contact with a service. The participants have to imagine that they are the final user to generate the opinion from the final user perspective. Participants should define where it should be found, what the user will discover, what actions can be performed, and finally, which technologies will be involved. Both activities and technologies are positioned side by side to allow the participant to see and suggest possible functional interactions.

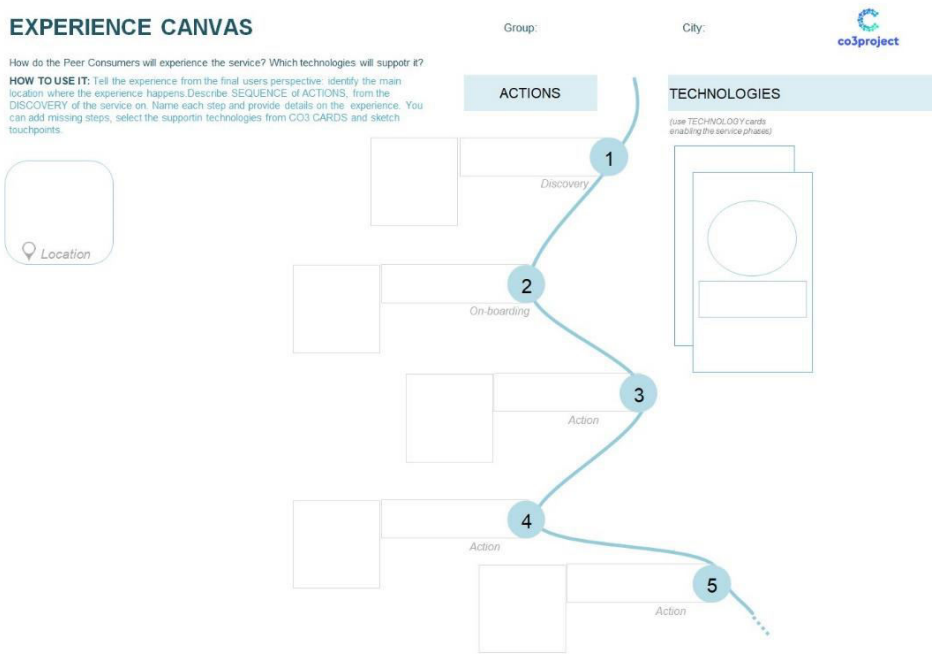

Figure 12 Experience canvas: The journey of discovering a service

CO3 CARD DECK: The card decks are an excellent support for the co-design process (IDEO method cards). It works as a user-friendly shared vocabulary of complex concepts like in the case of CO3, helping keeping in mind the different CO3 technologies and methodologies. A first general organization of the card deck is shown in Figure 13 where there are four main groups (concepts, strategies, tech features, enabled processes) each one of them with examples.

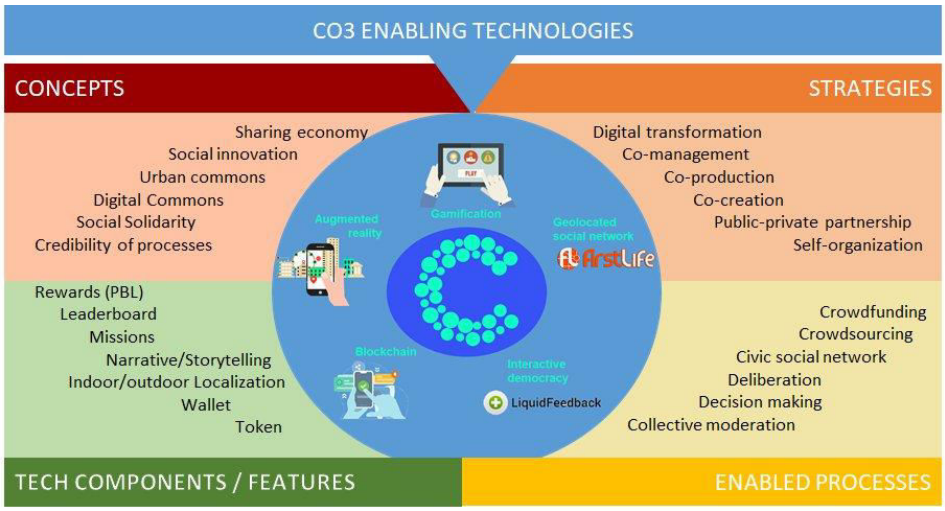

Figure 13 CO3 Card Deck content structure

In the following Figure 14 , the template for a card is defined. It indicates the position of the text and color palette for the different categories. In Figure 15, a specific example of a card for the concept of sharing economy.

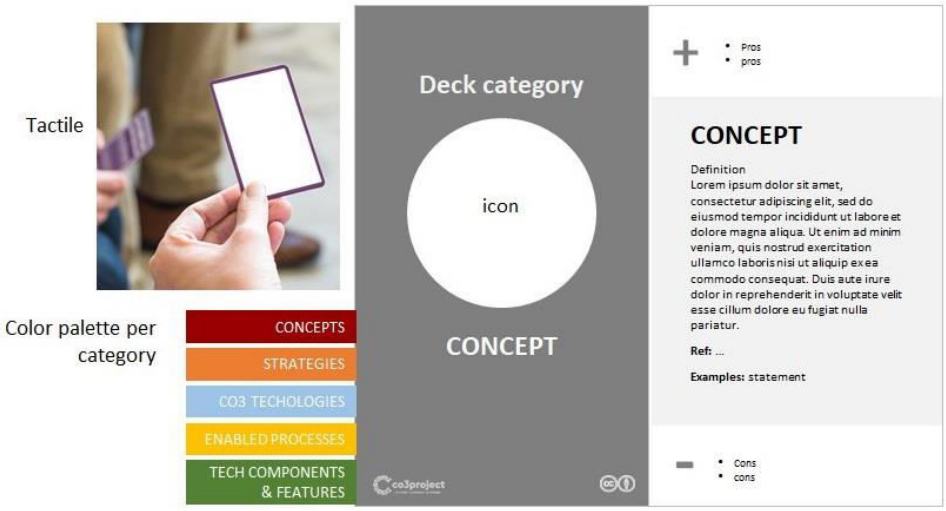

Figure 14 CO3 Card deck: Card template

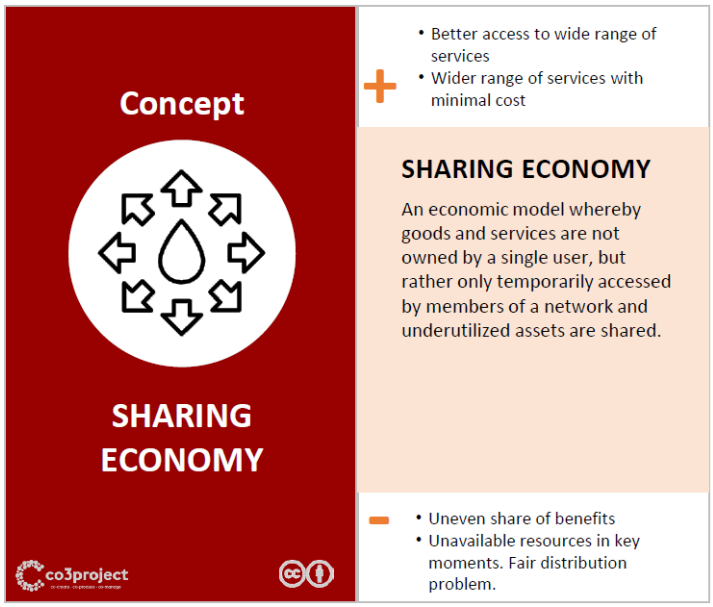

Figure 15 CO3 Card example: Sharing economy concept

All of this material has been used in the different pilots covered in the "**Paris co-design workshop**" , "**Turin co-design workshop**" and "**Athens co-design workshop**".

Tags: CO3 project – Co-design – User Centred Design – Design Thinking

Paris co-design workshop

IRI's conducted internal meetings to define the stakeholders to be invited, organize the workshop, and thresh the best partners with strong interest in the CO3 Technologies. Based on this, the workshop was divided into two scenarios; Recycling, BIM & Urban Modelling, and Contributive Clinic. The workshop generated a recommendation; the participants should feel that they could usefully work together in a contributory ecosystem like the CO3.

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Paris co-design workshop

In May 2016 the Ministry of the Economy, Industry and Digital, the State Secretariat for Reform and Simplification and the State Secretariat for Higher Education and Research commissioned the EPT Plaine Commune (9 municipalities of the Seine-Saint-Denis), the Institute of Research and Innovation (IRI) and the association Ars Industrialis to study and put in place on this territory the conditions for experimentation – specifying and concretizing the possibilities of the development – of a contributory economy .

In this context, IRI developed the Contributory Learning Territory (Territoire Apprenant Contributif, TAC) programme. Over the next 10 years, IRI will co-create with the inhabitants of the Plaine Commune territory the first pilot site for the design and experimentation of the contributive economy, in partnership with the local associations, the public administration and private partners (Fondation de France, Orange, Dassault Systèmes, Caisse des Dépôts et Consignations, Société Générale, Crédit du Nord, Danone, AFNIC Foundation).

IRI's staff started the initial internal meetings to define the possible list of stakeholders to invite, describe the organization of the workshop and define the initial question to thresh the best partners who have strong interest in the CO3 Technologies. As a previous work, the IRI translated the different materials of the CO3 toolkit, which are questionnaires, canvases to French with the objective of enlarging the potential public.

In the particular case of the Paris workshop, IRI decided to exclude the experience canvas as they chose to use a personalized version of the experience canvas with a classical touch. This modified version centers on actions rather than technologies. Since the posterior analysis of technologies to be implemented is done in further iterations at IRI internal meetings. Because of timings, the CO3 card deck was unavailable during this workshop (conducted only three months since the project started), and this material was not evaluated.

Based on the results of the previous questionnaires that gathered the needs of the Plaine of Commune territory, the workshop was divided into two scenarios; The urban modeling, recycling, and habitat management (Recycling, BIM and Urban Modelling group). And the second scenario covering the care, wellness, and nutrition (Contributive Clinic).

Before dividing the groups, there was the main presentation event conducted by the CO3 partners in charge of the workshop with the necessary technical knowledge, presented the CO3 technologies to the participants, replying to any emergent doubts about these establish a framework of what tools are available for the co-design session. The presentation environment was developed in a conversational style in order to identify possible requirements and barriers in the specific pilot of Paris.

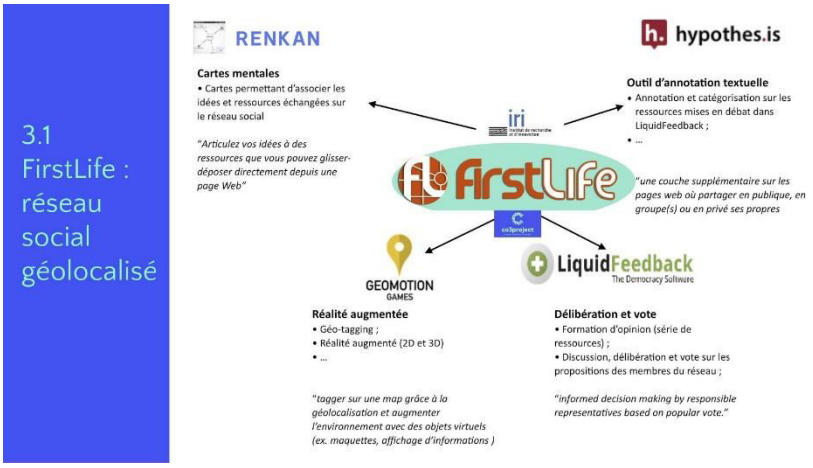

FIGURE 16 Introduction slides of the technologies

Recycling, BIM and Urban Modelisation

FIGURE 17 Recycling, BIM, Urban Modelisation workshop.

In the Recycling, BIM and Urban Modelisation group, the main idea was to give inhabitants a higher control over the designing, building, demolishing, and recycling processes thanks to CO3 technologies. We decided to focus on a concrete case of the Olympic Village, to be opened in Paris in 2024, taking advantage of the expertise and knowledge of our partners, particularly concerning legal barriers and already existing political and economic standards and interests of the territory.

The primary purpose of the workshop is to democratize, empower the inhabitants and the students to the design process, proposing new types of digital uses in connection with the Olympic and Paralympic Village project (redevelopment of buildings, reallocation of spaces, reuse of unused building materials, contributive planning). During the workshop, the possibility of using Augmented Reality to preview changes and comments in the real environment. The usage of LiquidFeeback and ePlanete to debate the emerging issues, designs, costs. During the workshop discussion, a propose of integration plan emerged:

1. users start "crafting" buildings, equipment, facilities, services during **MineCraft** workshops;
2. On the **MineCraft DYN Map** can be superimposed a **FirstLife Map layer;**
3. From the FirstLife Map links are proposed to FirstLife discussion groups;
4. From FirstLife links are proposed to **LiquidFeed back** for building propositions which require deliberation. Among the voted proposition, some of them can be further analyzed in terms of Commoning value in **IRI ePlanete Blue instance**, then awarded and supported with Contributory Incomes.

5. From FirstLife and LiquidFeed back links are proposed to textual document annotation in **Hypothes.is** and mind-mapping in **RenKan**.
6. Crafts (**MineCraft coins**) could be tokenized and eventually exported in **blockchain Commons currency**.

Also, the workshop coordinators generated a recommendation about the CO3 toolkit. The coordinators found that the most critical issue is how those technologies can be combined rather than the novelty. The final combination should be consistent with the application on each territory. For instance, be able to access the geolocated social networks that bring tagged elements in 2D maps or in an augmented reality environment — being possible to visualize the different elements and debates on the current zone limited by a particular area of interest to generate a perception of local home issues that can be contributed to the final users.

Contributive Clinic

In the Contributive Clinic group, we focused on the needs of the Plaine Commune territory of building trust and reviving the community spirit via the creation of common-oriented proximity activities (i.e., discussion within the parents of neighborhoods) and common-based proximity services (i.e., proximity&peer babysitting for families). The technology could help in the exchange and share of difficulties about the education of its children based on the experience sharing. This can be tracked in a geolocated social network map being able to see in one place the childcare services, associations, discussions, and recommendations, empowering the parents and care staff with the share of good practices and the creation of common knowledge.

FIGURE 18 Contributive Clinic group using one of CO3 Canvases.

The use case of the workshop was about the use of electronic devices “screens” as a babysitter that let the parents rest some time. Then a proposal of how to combine the CO3 technology to interact with parents for help. The following integration plan has emerged during the session:

1. **FirstLife** geolocated social network where parents, care employees and childcare institutions can find themselves and share information and knowledge.
2. **LiquidFeedback** is used for deliberating over activities, fundings and the like. The opinion formation should integrate **Hypothes.is** in order to create more interesting, informed and in-depth discussions. When closed, the LF discussions can be summarized with **Renkan mind map.**
3. Results of the LF discussions can be used as an input for **ePlanete**.
4. Possibility to tag and categorize (places, squares, kindergarten, pre-school, childcare *etc.)* with the **Augmented Reality**

Also, the workshop coordinators generated a recommendation about the CO3 toolkit. It will be useful to create an evaluation output from the workshops to let the participants aware that they could usefully work together in a contributory ecosystem like the CO3.

Tags: CO3 project – Co-design – Paris – Workshop – Minecraft

Turin co-design workshop

Turin is pursuing a participatory approach between citizens and institutions on the creation and management of public services. Municipality and RCQ have launched a series of activities and workshops to promote and to share both vision and the objectives of the CO3 project among its municipal departments. According to the workshop results, the CO3 technologies could augment/improve this process of co-creation, facilitating the involvement of citizens. It can bring some contribution to the governance model of the Houses.

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Turin co-design workshop

Turin Municipality is currently promoting several European, national and local projects and initiatives fostering inclusive and social growth, to address sustainable urban development, thus pursuing a participatory approach between citizens and institutions on the creation and management of public services.

Since the first months of the project, Turin Municipality and RCQ have launched a series of activities and workshops to promote and to share both vision and the objectives of the CO3 project among its municipal departments. As far as this preliminary activity is concerned, four internal departments and three main stakeholders were actively involved in this awareness process.

FIGURE 19Turin Open Incet CO3 partners, multi-functional space.

Dedicated sessions focused on the CO3 technologies were presented to stimulate the first discussion about potential applications and possible use cases. As an overall result, a common request from participants started to emerge, by highlighting the need to promote subsequent follow-up sessions or events dedicated explicitly to Blockchain and Augmented Reality technologies.

The workshop on 13 June, held in Turin in one of the 8 RCQ hubs, started with an introduction phase of the two technologies identified as a core interest for Comune di Torino, the Blockchain, and the Augmented Reality. During this phase, a prototype wallet app resulted in an effective method to show the possible economic dynamics enabled by the Blockchain.

This first technology was revealed as stimulated by the stakeholders because the management of prepaid cards represents a sustainable way to enable actions with the common goods. Promoting the cooperative connotation because of the motivating actions (discounts, loyalty points, etc.). Although during the introduction phase, the stakeholders showed that specific skills are needed to maintain services based on blockchain mechanisms.

Participants found two main benefits. The improvement of citizens' participation because there is direct feedback by its actions and the economic sustainability with the usage of the prepaid cards that enables the interchange of value and the crowdsourcing campaigns or other collaborative initiatives that the value added by each citizen has to be tracked. In the case of augmented reality, the possibility of visualizing the elements in the real world helps with the idea of "scarcity" resources and spaces. In general, it was found that the public administration has importance on these processes as a facilitator of the infrastructure and access provider.

FIGURE 20 Co-design workshop, 13 june 2019, Cecchi Point, Turin, Italy

The workshop was divided into two tablets, one dedicated to recycling and a second one to the houses as urban commons.

Recycling

The recycling table that analyzed what features of CO3 can be applied to the Celocelo project, an initiative promoted by Casa del Quartiere, in terms of the way that the donors' goods are distributed. The CO3 technologies like geolocation networks can be useful to retrieve and publish the available goods and also being able to connect/find different actors that provide logistic services. This can improve the communication between the supply/demand for beneficiaries in the state of fragility and reduce the logistical costs.

The houses as urban commons

The second challenge identified concerns to the "Casa del Quartiere" governance model: each "Casa del Quartiere" is an urban common that allows citizens and local civil society organizations to co-create and co-manage activities and services and also, to various extents, co-manage the community hub itself.

In each one, local organizations, groups of citizens can find partners and resources to organize activities from cultural to a people in fragile condition. Also, they can participate in the governance model, taking responsibility in the management of a resource.

The coordinators gathered the canvases filled during the workshop and found the following results:

Ecosystem map:

According to this canvas, the number of actors and the type is very heterogeneous. With further analysis, it can be grouped into three categories. The individuals that are the subjects who know and frequent the Houses of the District those are private citizens (students, families…), which are the primary audience of the Houses when the other individuals that are professionals come to train, exhibit, and create productive activities. The second group is the formal/informal organized people of cooperatives, associations about cultural, sports, and other nature which play the role of beneficiaries and providers. And finally the staff, which can be from the public administrator representatives to volunteers.

Generally speaking, the ecosystem shows a high degree of flexibility in the roles since some of them can work as facilitators or beneficiaries.

Actors portraits:

The actors who interact with the Neighborhood Houses can easily play as beneficiaries and as peer-producers, entering in the loop by offering resources in terms of skills, ideas, creativity. All people, groups, institutions that currently frequent the Houses are also aggregators or can contact and expand the current network of stakeholders. The reasons and needs that move those persons are diverse. They can range from the possibility to access welfare services otherwise not available to motivations related to social relations, integration and personal and professional growth. All of these instances require efforts and coordination skills. These are identified as aspects that could lead to an increase in the accessibility of services, their capability to meet real needs and to involve a more extensive people base.

Exchange flow:

The Exchange Flow Canvas highlights the importance of some flows compared to others: the flow of direct exchange between beneficiaries is significant. This is a reflection of what was said before and confirms the role of Houses as facilitators of non-mediated exchanges. The sharing of material resources (such as buildings, spaces, books, time) seems to describe this exchange area better.

It emerges a third exchange area - identified as interesting to be further developed in CO3 scenarios - concerning the possibility of enabling and facilitating transactions with partners outside the Houses' ecosystem. Actors such as commercial enterprises and companies can offer resources considered very "valuable" such as scholarships or various funding measures or alternatively, can activate cooperation contributing to maintaining the common goods (e.g., ordinary maintenance of buildings)

Value proposition:

This canvas consolidated the previous phases because it drove the participants the areas of real interest on focused actors, real needs, and opportunities. The results showed the possibility of improving the governance of the Neighborhood Houses as commons, through the definition of economic mechanisms as a key to increase the access to existing services and reinforce initiatives and transactions through motivating and sustainable drivers.

Conclusion:

CO3 technologies could augment/improve this process of co-creation and co-management and facilitate the involvement of citizens as beneficiaries/stakeholders/volunteers. Also, they can bring some contribution to the governance model of the Houses.

Tags: CO3 project – Co-design – Turin – Workshop – Casa del Quartiere – Urban commons

Athens co-design workshop

The essential context of the Athens pilot scenarios and use-cases are social services and their improvement through the introduction of new technologies and the development of a common area where diverse beneficiaries and stakeholders can collaborate on the co-design and co-implementation the services. The two-session workshop found some privacy, inclusion issues that should be taking in care to the CO3 technologies implementations.

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Athens co-design workshop

The essential context of the Athens pilot scenarios and use-cases are social services and their improvement through the introduction of new technologies and the development of a common area where diverse beneficiaries and stakeholders can collaborate on the co-design and co-implementation the services. More specifically, social services to be involved in the testing of the Athens pilot were envisioned to include food provision and food-sharing to a vulnerable population. However, recent internal meetings with the Agency of Social Solidarity and Health of the City of Athens promoted the need to extend the use-case with sharing of other social goods such as housing, health and well-being services, skills, time-sharing, etc.

The food-sharing scenario of CO3 Athens pilot, social, and financial constraints impose a large increase in the need for food provision. The existing services focus mainly on two categories of Athenians. On the one hand unemployed, indigents, immigrants that usually face housing problems and use the service of meals provision. On the other hand, poor families with children, elderly, and generally individuals with low income that has a house, but due to their financial limitations, they cannot buy basic goods such as sanitary products, clothing, food, etc. The agencies/offices of the City of Athens responsible for food-related activities is the Agency of Social Solidarity and Health, the City of Athens Homeless Shelter, operating under the supervision of the Agency.

The workshop was defined in different internal meetings of the Athens municipality and other project partners deciding to set a workshop program of 2 days of duration to achieve a high-quality result. The objectives of the workshop and the methodology that was followed required the participation of 4 different categories of attendees:

1. City officials, public administrators, municipal employees under social services
2. NGOs, organizations covering the field of social affairs (health, housing, food)
3. Individual citizens, citizens' groups and associations, consumers of social services
4. Attendees with IT background, Informatics employees

These participants were recruited from different areas like:

- Public administration: Athens Mayor office and Deputy Mayor of Health and Social Solidarity, Chief Digital Officer for Digital Transformation of Athens
- Social agencies of health and solidarity: Friendship Clubs Dpt., Support and Immigrants/Refugees Social Integration Dpt., KYADA, Open Schools, Impact Hub Athens, SynAthina, Athens Digital Lab, ESTIA program, Social food-sharing of Equal Society Organization, Solidarity initiatives "Mirmigki" and "Allos Anthropos".
- Churches: Orthodox Church of Greece
- NGOs: "MISSION" established by the Orthodox Church, Aggelikousi Institute, "Steps", "Solidarity for all"
- Companies (Public Gas Corporation of Greece DEPA, COSMOTE telecommunication company)

Workshop preparatory phase

Before the workshop, OLA conducted two internal training sessions, one in the premises of DAEM and one in a local technology partner, Sociality Coop. with an extensive presentation of the CO3 technologies followed

by a discussion of their pros and cons and how these technologies could better be communicated to the other participants of the co-design process.

OLA and DAEM also worked on the contextualization and localization of the CO3 toolkit material, personalizing the canvases to the Athens use cases. Two pilot workshops rehearsals before the actual one were organized to have a better idea of the process and spot the difficulties. Based on this experience, the following modifications were implemented for this case:

● The *Actor Canvas* was altered to include the potential role of the technologies in surpassing barriers to achieving the expected outcomes
● The *Value Proposition Canvas* was altered to a simpler version which focused on the expected outcome in order to solidify consistency among canvases
● The cardeck provided was altered to only include the Technologies and a small description of them in order to avoid non-essential information that could distract the participants
● The technology presentation was simplified and focused more on use cases and not on how the technology works
● We added technology badges that could be used on the canvases to indicate the potential use of the technology on the services discussed
● We decided to provide hands-on experience of the technology in the workshop venues with laptops displaying prototypes of the available consortium technology applications.

Workshop session

The workshop was conducted in two sessions, the first one to complete the Stakeholder Mapping, the Value Proposition Canvas, and a plenary non-voting session regarding it, while the second session was dedicated to the Experience Canvas in more design-oriented and experienced groups. The aim was to have the participants of the second workshop that also participated in the first.

Each table discussion was recorded alongside the filled canvases and a report generated to each table coordinator (facilitator). This provides richer information for the posterior analysis of the results. Each table was composed of 5 participants, a facilitator, a technology expert, a public administrator executive, a social worker (NGO), and a citizen (beneficiaries). The topics covered were food, health, and housing distributed along five tables.

Initially, an informational slot was dedicated to the introduction of the participants to the co-design process and its objectives for the CO3 project that aims to actual pilot implement these proposals to assert the impact of the technologies and the co-production concept itself. Thanks to those technology experts already are informed on the CO3 technologies, they have played a vital role in bringing the technology perspective into the discussion.

FIGURE 21 Scenarios Presentation, technology introduction.

The PA executives were able to provide essential information on how this kind of services already operate and also stretch their potential and challenges. Members of social initiatives brought in a more social perspective and expressed the possibilities which emerge when citizens have an active role in providing these essentials, especially in times of austerity when public social services have limited capacity. Citizens brought in a more personal approach to expressing their needs and aspirations.

Stakeholder mapping

Table 1 and 2 with food as the topic, generated a similar stakeholder mapping, they identified as consumers the homeless, indigents, migrants, elderly, children, etc. And as providers' food-banks, private solidarity entities, street workers, supermarkets, church, etc. The partners were associated with the municipality, social partners, logistic companies, cooks, etc.

Table 3 with health topic, have identified as consumers the people with disabilities, homeless, children, older adults, etc. and as providers the group of citizens, NGOs, social pharmacy, municipal health centers, etc. As partners, the church, municipality of Athens, greek state, etc.

FIGURE 22 Table 3 in action

Tables 4 and 5 with the housing topic identified as a consumer, the youth people, students, homeless, immigrants, etc. And as a providers housing platforms, municipality abandoned buildings, KYADA, hotel associations, citizens renting a room or house. As partners, the municipality of Athens, NGOs, private entities, housing coops, etc.

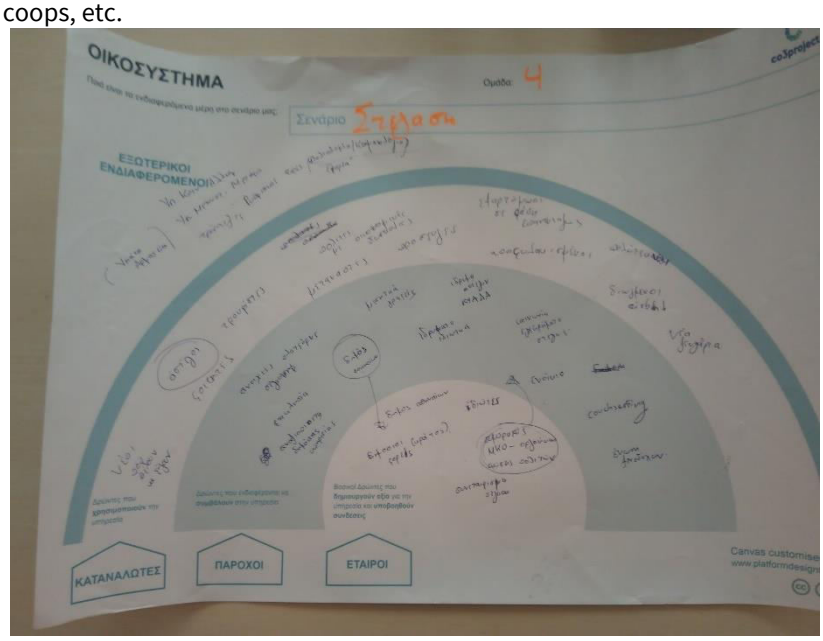

FIGURE 23 Stakeholder Canvas of Table 4

<u>Value Proposition canvas</u>

Tables 1 and 2 with food topic, proposed as value the stable and constant access to quantitative and qualitative food to increase the quality of life and improve social stability and cohesion. This is achieved with the usage of geolocated technologies as the CO3 FirstLife platform for mapping the points of product distribution and the small producers are located. LiquidFeedback was selected to provide an evaluation and decision over the services and the blockchain to track the food delivery quantity and control who is receiving and how much food is being delivered. This will simplify the reporting process in the case that is founded by a third party/administration. Some of the participants suggested the delivery of QR code to enable the final user to obtain the goods and maintain the tracking.

Table 3, with health issues, proposed as value to improve the utilization of medicines that are no longer needed by some people by publishing over the FirstLife geolocated platform. To limit and avoid the abuse, Blockchain is suggested as an identity method since it can store personal medical data ensuring privacy because of its possible anonymity. FirstLife will help with the visualization of the supply and demand for health services.

Tables 4 and 5 that covers housing topic, proposed as value a public service similar to the Airbnb but based on social collaboration, linking people who own empty/abandoned houses with people that need them. It also provides an interface to the people that wants to share buildings facilitated by third entities as social housing. FirstLife map can show buildings moderated by the municipality (previously filtered), and the building is added with indications about the owner exigencies (given by repairs, money contribution, etc.). If the municipality wants to reward the owners, it can be provided in the form of tokens supported by a blockchain. This platform, as a difference to Airbnb, doesn't have the objective of win money by taxes.

Experience canvas

For this second phase, the food and health topic tables were combined in a single one to define de experience canvas. In the case of health, it was found that the discovery step is not as easy because the user's limitation about its knowledge of the technologies, this can be overcome by the help of caretakers. Still, it might appear a privacy problem in the case of the FirstLife platform. Participants proposed the use of a proxy using a phone. In the case of the food, the discovery is possible by the KYADA and citizens' help center. The beneficiary can engage using a mobile application or a terminal installed on different facilities. The users can also use the QR codes to get the necessary food. But the experience canvas is filled from the perspective of the facilitator as its possibility of technology access.

In the case of the tables about housing, the points with the main concern are the transparency, motives, protection of the property, the owner rights, and the trust between homeowner and beneficiary. This requires the engagement of the municipality as a legal representative to protect all previous points. The service discovery can be reached by field trips, conventional campaigns, social media, and city excursions defined by the architectural school to identify different locations with potential uses and start a discussion on platforms like LiquidFeedback to vote and decide. Although, the group described that physical participation is essential on the visits to ensure active interest.

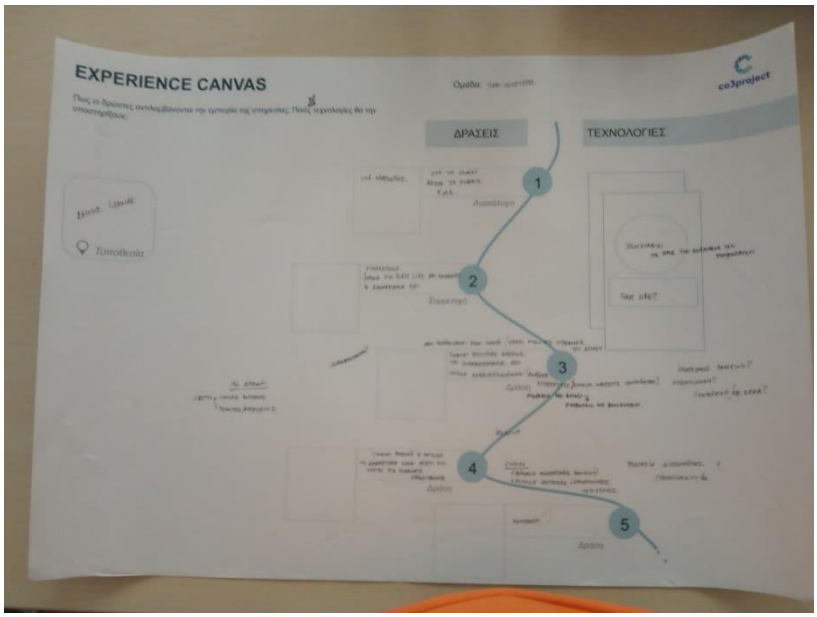

FIGURE 24 Experience canvas from the Housing table.

Conclusions

There are some privacy, inclusion issues that should be taking in care to the CO3 technologies implementations. Some participants were reluctant to use augmented reality or blockchain technology, being in some cases stripped most of their features to be accepted by these participants. In another example, the FirstLife was reduced to a simple 2D map instead of a geolocated social media map. This co-design process revealed that cultural, social, technical issues like the found would emerge during the implementation phase, and the group in charge of the implementation should be ready to overcome all of these issues.

Tags: CO3 project – Co-design – Athens – Workshop – Food – Housing – Health