



D3.2 – Communities of Practice Report (Draft)

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Executive summary

The goal of the deliverable D3.2 INDIMO Communities of Practice Report (Draft) is to present the process of learning by practice developed through the five project pilots through the description of the activities developed during the first year and half of the INDIMO project. These activities will continue until the end of the project. In terms of tasks, it relates to task 3.2 of WP 3, the work package of INDIMO which horizontally manage the implementation phase of the pilots and thus stage 2 and 3 of the INDIMO co-creation process. The aim of this process is to gain insights into the needs of the target groups of INDIMO (e.g. citizens, policy makers, operators and developers), by developing common knowledge through the establishment of local Communities of Practice (CoP). The CoP co-creation method is explained in this deliverable through the Guidelines for performing INDIMO Communities of Practice. These helped in the setting up the Communities of practice within the pilots at the local level. The Community of Practice associated to each pilot brings together local users, mobility and delivery services providers, (digital) developers and policymakers.

The process refers to the five (5) INDIMO pilots in P1 | Emilia-Romagna | Digital Lockers, P2 | Antwerp | Inclusive traffic lights, P3 | Galilee | Informal ride-sharing in ethnic towns, P4 | Madrid | Cycle logistics platform for delivery healthy food and in P5 | Berlin | On-demand ride-sharing integrated into multimodal route planning. The INDIMO pilots were organized in the way of getting a better understanding of the reception of different mobility solutions by users and non-users, developers, operators and policy-makers. A great part of the findings hinges on the common knowledge that was created during the local co-creation process of the CoPs, that allowed us to get insights from different practitioners and other key actors and enlarge our vision on the Digital Mobility and Delivery solutions.

CoPs offered an opportunity for testing and validating various learnings that arose from previous stages of research: the semi-structured interviews (SSI) of Task 1.3 and the Persona construction of Task 1.2. Especially remarkable were the following three rounds of testing and validation: the Universal Design Manual users' requirements, the assessment of icons for the Universal Interface Language - UIL and the appropriation exercise for the deliverable 2.5 on Enhancing appropriation of digital mobility solutions.

Conducting the co-creation work implied a good number of challenges and obstacles that had to be overcome, especially when we have the aspiration to build-up a local Community of practice within stakeholders and researchers who have not experience with this kind of knowledge consolidation tool. In addition, for COVID19 reasons almost all CoPs had to be carried-out in a digital platform with some stakeholders, including users and non-users participants with a very low familiarity with any type of digital tool as it was the case for older people for whom it was the first time to do a teleconference. Therefore, both bilateral and collective training sessions with pilots' leaders for starting the meetings of the CoP have been organized. In this context, cambiaMO implemented a specific support tool for local CoPs: the Meta-CoPs. They are virtual meetings with the participation of the facilitators of each local CoP. A Meta-CoP is a space where to share experiences and

insights about the process of each local CoP, to verify alignment among the CoPs, and offer guidance for the issues that may arise in a particular meeting.

The great availability of the local pilot leader was the key for guaranteeing the success of CoPs meetings. This is a clear example of empowering target-group achievement that make the CoP unique in the domain of the co-creation tool.

After it, today all the CoPs are on track and they have co-created and contributed with valuable inputs for the general INDIMO project.

The main insights of the CoPs implementation could be summarized in some key points:

1. There is a need of training facilitators when a research project would implement the Communities of Practices. Specific collective and bilateral training activities need to be organized and implemented;
2. cambiaMO team supported by VIC and DBL had to reinvent the facilitating work in a digital space to be able to realize the CoP belong the INDIMO DoA during the Pandemic context.
3. The organization of the digital space determines to make the digital CoP sessions more dynamic and convert them as well in a more pleasant space where people would stay and to share their experiences.
4. Mutual support plays a key role in this INDIMO CoPs process
5. Both local CoPs leaders' availability in following the cambiaMO coordination initiatives and the trust of INDIMO work package and project leaders were the ingredients for building-up and keeping on the track the CoPs co-creational process.
6. After this first half of the INDIMO project, it was achieved the creation of a stable co-creation space where people are confident to share and empowered to contribute to digital mobility inclusiveness.
7. The CoPs have achieved the double goal of creating content in a huge diversity of treated themes for INDIMO project and at the same time of incentivizing the stakeholders' participation into that.
8. Some learning by doing techniques have been implemented with cambiaMO experimented facilitator who participated in various INDIMO CoPs meeting and facilitated them even in local languages when it was possible and required by the context.

Based on these insights, we have elaborated various inputs for Digital Mobility Toolbox, that may assist on the development and deployment of the digital mobility and delivery services of the future, and we have validated the main requirements, selected the appropriate icons and identified the appropriation channels for the digital and graphical interface of the apps and the appropriation of digital mobility solutions associated to the populations vulnerable-to exclusion.

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1 Introduction

1.1 The INDIMO project

The main objective of the INDIMO project is to extend the possibilities and benefits of the new scenario of digital mobility and delivery solutions to those groups that currently face barriers to access and feel excluded from these new usages. Physical, cognitive, geographical, economic accessibility and inclusion are challenges posed by digital interfaces, that hinder the potential of the new technology in the field of transport. There is a risk that new digital mobility and logistics services will not be available and accessible to all members of society. 22% of all European households still do not have access to broadband internet especially in rural areas. Mobile broadband penetration also shows a high variation within Europe with 70 subscriptions per 100 persons in Hungary as a lowest value. In some European Union (EU) Member States, over 25% of the population still does not regularly go online. Almost 10% of EU citizens have never used the internet, with a high number of non-users among those with low education levels, aged over 55, retired or inactive (European Commission, 2020). This data shows that internet-enabled mobility is not an obvious choice for millions of Europeans although internet access is just one of the reasons why they may be excluded. The work aims at extending the usability of digital mobility services and digital delivery services to the app-based systems in order to bridge the existing usage gap. The project aims at having a wide variety of people covered by personalized mobility options that satisfy their needs.

1.2 The aim of the deliverable

This deliverable, D3.2 INDIMO Communities of Practice Report (Draft), provides a description of the activities and the results of the process of learning by practice developed through the five INDIMO pilots. It relates to task 3.2 of WP3, the work package of INDIMO which horizontally manage the implementation phases of the pilots and thus stage 3 of the INDIMO co-creation process (WP3). The aim of the process is to gain insights into the needs of the target groups of INDIMO (e.g. citizens, policy makers, operators and developers), by developing common knowledge through the establishment of local Communities of Practice (CoP). This co-creation method is explained in this deliverable through the Guidelines for performing INDIMO Communities of Practice provided to each pilot. These have helped in the setting up the Communities of practice within the pilots at the local level. Each Community of Practice brings together local users, mobility and delivery services providers, (digital) developers, UI|UX designers, and policymakers associated to each pilot. At the beginning of the project, for each pilot, a call for participation was launched to engage them into a process of collective learning. The main objectives of these Communities of Practice is to contribute to developing the INDIMO Co-creation Community and to identify the profiles of vulnerable user groups with respect to the digitalization of

mobility with their requirements and needs. The produced common knowledge within the local CoPs is consolidated in this deliverable and serves as structured feedback for developing various components of toolbox (i.e. WP2) including the Universal Design Manual (UDM), the Universal Interface Language (UIL) and designing social and educational strategies for enhancing the appropriation of the usage of the Digital Mobility Services (DMS) and Digital Delivery Services (DDS).

The following chart shows a summary of the interaction between the CoPs and other activities and instruments for the collection of data, the phases of pilots' deployment and the outcomes included in the Digital Mobility Toolbox:

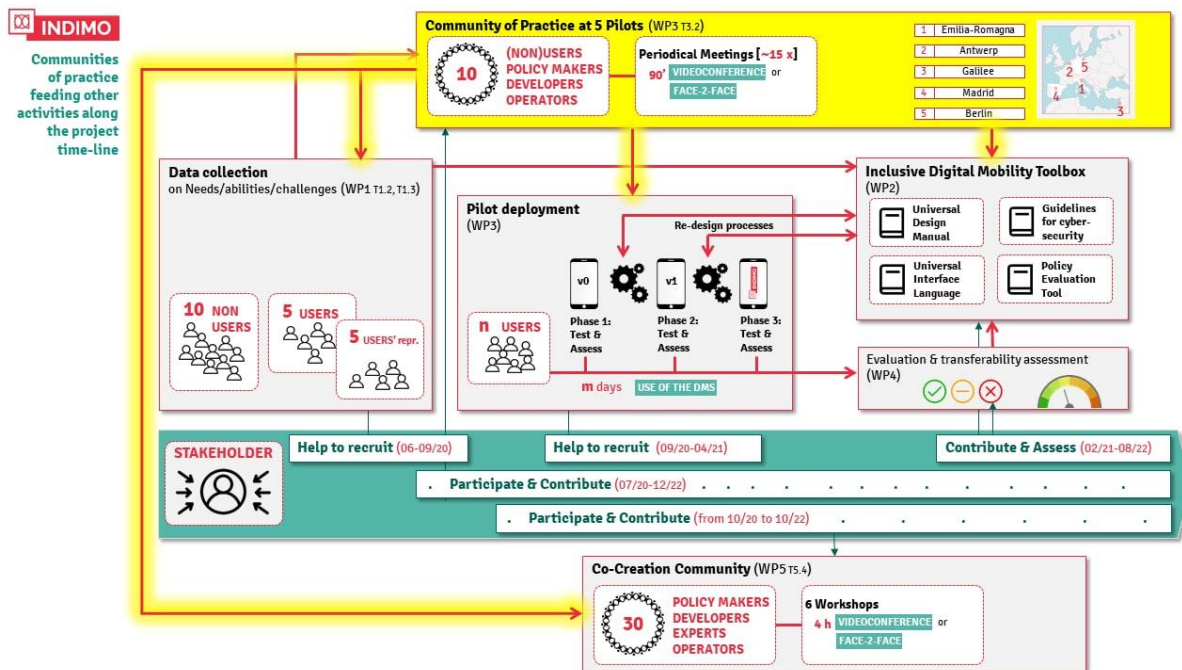


Figure 1. Diagram showing the role of the CoPs within the INDIMO project

1.3 Task participants and sharing of responsibilities

Task 3.2 to which this deliverable relates to is led by cambiaMO | changing MObility with support from local pilots' partners (e.g., ITL and Poste Italiane, IMEC, Technion, VIC, CoopCycle, and Door-to-Door), which carry out the Community of Practice, and with the contribution of ZLC as WP3 leader. Concretely, cambiaMO has coordinated the CoP agenda, its contents and facilitated CoPs meetings, when needed. EPF and Polis contributed with users' mobilization and cities' perspective. The task closely interacted with the tasks developed in WP 1 on the analysis of users' and no-users' needs, requirements and capabilities, with the Universal Design Manual elaboration of the WP 2, and with the pilots' implementation in WP 3 and their monitoring in WP 4.

1.4 Structure of the deliverable

This deliverable is subdivided into 5 sections. The first section is the Introduction, where the aim of the deliverable is presented and a brief overview of the content of the chapter is performed. The association between this Deliverable and previous ones (i.e. D1.2, D1.3 D1.4 and D3.1) is outlined, attempting to orient the reader in how the different pieces contribute to the overall meaning of the INDIMO project and how they take input from previous tasks and learnings.

Section 2 describes the Guidelines for performing INDIMO Community of Practice. Those guidelines were provided to pilots and helped them in the setting up the local Communities of practice.

Section 3 is the core of this deliverable. It presents the pilots' aim, the key activities developed during each CoP session, the main topics that arose during the conversation, the insights that stemmed from explorative research and scope of the project, as well as the three common exercises carried out at each pilot to nourish several activities in other work packages of the project.

Finally, Section 4 elaborates the lessons learnt from the CoPs' development during the first one year and half of the INDIMO project, while Section 5 presents the main insights of the first year of the COPs meetings and the conclusions about the process and the achievements of this CoPs implementation.

2 Tips for performing INDIMO Community of Practice

2.1 What is a Community of Practice?

Communities of Practice (hereinafter referred to as - CoPs) are described by Wenger, McDermott and Snyder (2002) as group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. The concept starts off from the recognition that knowledge is not an object that is stored and transferred. Knowledge is neither an already constructed idea of the world that is transmitted from an instructor to a learner. Knowledge is built in a social interaction; it is a creative process. This implies sharing and exchanging with other participants, and a setting that facilitates it. We all know some things and we all ignore some others. By sharing information, we build new ideas and behaviours. This dialogue is led and encouraged by specialists on the topics, which provide their own valuable inputs.

CoPs draw on the knowledge and experience of their members to propose solutions adapted to their needs and interests. The CoPs can have different aims such as to develop productive services, to create common knowledge and to empower a group of people in some specific capabilities. They are groups of people who share a concern, a need or a passion for something they do and learn how to do it better as they interact regularly. The method is open to online participation, in person or by combining both ways. In the context of mobility, they develop common knowledge on understanding how people travel and what problems they encounter when they use digital mobility and logistics solutions, particularly when their mobility needs are diverse for socio-economic or physical and mental reasons.

In the context of the INDIMO project, CoPs are established at each pilot including users, mobility service providers, (digital) developers, UI|UX designers and policymakers associated to each pilot. They bring together external stakeholders to enhance the intelligence gathered from pilots and to build a broader stakeholder network which is targeted to take-up results (the INDIMO Co-creation Community). Simulations and role play during the sessions are welcome; for example, the interaction between the user and the delivery person may be enacted and then commented on. Splitting in groups to address different vulnerabilities is also an option. While the broader network will be mainly engaged through communication and dissemination activities, the local CoPs are strongly connected to the project consortium and support the co-creation of the INDIMO Inclusive Digital Mobility Toolbox.

2.2 Reasons for implementing a CoP at each INDIMO pilot

For each INDIMO pilot the reasons for implementing a CoP and the aims pursued at each local context are described.

2.2.1 P1 | Emilia-Romagna | Digital Locker

In Emilia-Romagna, the purpose of this Pilot is to enable the e-commerce in rural areas, especially targeting elderly people and migrants living in low-level economic conditions, people with lack of digital knowledge and education, to reach those citizens that cannot have access to the same level of services in comparison to urban areas. The point is to make the digital systems more accessible and inclusive. The idea of sharing experiences is to adapt current platform and infrastructure to target the people groups mentioned before. The aim of this CoP deals with the identification of barriers to the use of technology given by age, language and income and empower target-groups to overlap these barriers.

The INDIMO partners involved in this pilot are Poste Italiane, ITL and DBL.

2.2.2 P2 | Antwerp | Inclusive traffic lights

Antwerp's pilot objective is to contribute to turning traffic lights more inclusive by monitoring traffic flows such as cars and pedestrians, and use this information to prioritize certain streams. This will enable the creation of a new digital mobility solution for safely crossing traffic lights targeting elders and impaired people with disabilities (visual disability, wheelchair mobility). The purpose of this CoP is sharing experiences about accessibility, the use of the public space, the relation of pedestrians with other modes of transport (e.g., cars, bikes, e-scooters).

The INDIMO partners involved in this pilot are IMEC (EDiT, SMIT) and Antwerp municipality as stakeholder.

2.2.3 P3 | Galilee | Informal ride-sharing in ethnic towns

Galilee pilot has the purpose of allowing greater accessibility to work activities for women. Within areas of low service level provided by existing public transport, a digital mobility platform targeting women in the Arab society for ride-sharing will be upgraded. The focus of the CoP deals with discussing the ethnic approach to the city, the combination of both gender and ethnic perspective, the language barriers that may prevent or inhibit the use of services.

The INDIMO partner involved in this pilot is Technion with the support of Kayan, a local feminist organization.

2.2.4 P4 | Madrid | Cycle logistics platform for delivery healthy food

Madrid pilot has the aim of enabling e-food delivery for impaired people with mobility or visual disabilities, low-income, lower digital connected, socially isolated (e.g., unwanted loneliness), Covid19 isolated. The reason for implementing a CoP is to discuss among the relevant actors the actual use, proximity, and ease of use of e-food delivery as a way of tackling isolation of vulnerable- to – exclusion population.

The INDIMO partners involved in this pilot are cambiaMO, VIC-La Pájara, CoopCycle.

2.2.5 P5 | Berlin | On-demand ride-sharing integrated into multimodal route planning

The Berlin pilot aim is to increase access and provide individual mobility for women as caregivers: improving short-distance mobility with children, offering a connection to public transport stations, facilitating short walking distance to pick-up and drop-off points), lack of services (reduced mobility), lack of digital skills (although owning a mobile phone), residence in peripheral location.

The CoP will focus on the assigned roles of women as caregivers, the experience of women with children in the public space and in the transport, the existence of services that take into account women's concerns.

The INDIMO partners involved in this pilot are Door-to-Door and EPF.

2.3 Organizing a CoP

Further details about the steps described in this section are delivered in the Annex 4 of the present document.

2.3.1 BEFORE running the meetings

Before running the meetings of the CoP, there should be a good number of definitions with regards to the desired practice. These are the purpose of the CoP, the type of CoP that corresponds to its purpose, who is expected to participate in the CoP, which are the contents and the topics that participants will complete, and finally, what will be the schedule for the upcoming meetings.

Once all the definitions are settled and clear, it is a good idea to state them in a sort of Chart or Manifesto, which will be the conceptual guide of the process. It gives the community a sense of direction. This document can be available to new members and participants who may be interested in joining an existing CoP, and that allows us to update the information and level of experience that the CoP has acquired.

This document may contain:

- The item of a work plan to be generated by consensus of the group in the first meetings.
- Statements about rotation of roles if some roles are actually assigned.
- Basic arrangements and commitments of participants.
- Definitions on the degree of openness and welcome protocols for new members.
- A definition to incorporate the gender perspective to equalize the involvement of all people, with attention to inclusiveness.

One relevant thing to consider before starting the process is what the inputs (materials going into the scheme) and the outputs (the deliverables) will be. Thinking of the materials implies reviewing all the elements that may arise during the meetings. For example, it means thinking of the accessibility and inclusivity of all the elements proposed. Will some participants have physical constraints to carry out this activity? In the case of a digital CoP, do all people have in their computers or in their homes the elements to carry out this activity? Will all people connect from a computer or some will do from another type of device? Is the proposed platform fit for any kind of device? So, at this point, organizers cannot take anything for granted. In case any doubts remain about the availability of certain material elements, organizers can contact participants in advance to ask them their possibility of participating in certain activities.

2.3.2 DURING the meetings

The original presential dynamic had to be changed due to the emergency of the COVID pandemics and the restriction it imposes on the gathering of people in enclosed spaces. This implied that the meetings were held online, using digital tools such as Zoom, Go ToMeeting, Teams or Google Meet. Different proposed activities needed to be adapted to the new digital scenario and other had to be replaced. For instance, split-up groups or work in pairs is dynamic and much more complex to achieve in a digital environment. The activities where people stayed together in a room, and where the participation was clearly organized, allowing an ordered way of taking the floor, were prioritized over more dispersed activities. A typical sequence of steps included: a welcome to the community, a motivating title which easily attracts the attention of the group (it may have a word pun) and that synthesizes in a compact way the concept of the CoP; a round with an exposition of the motivation of the participants to be there; an ice-breaker, which is a playful activity to build up a warm interaction; a group arrangement, which is the stage to establish, collectively, what the rules of participation will be. Then, the launch of the key idea, a narrative of the CoP that stimulates debate and that enables also breakout rooms; a wrap-up, a collective summary of the items explored during the different discussions and activities; and finally, setting the day and time for the next meeting.

2.3.3 AFTER each meeting, preparing the next one

In order to keep the energy of the CoP rolling and its attention focused, organizers should concentrate on the day after the meeting with the same care as the planning before. The first point, which should always be remembered, is to complete the minutes document, as shown in the Annex 2. Here, all the relevant topics, suggestions from participants, comments and content that help to understand what happened during the past meeting, should be written down. This may help in the future to understand what direction the CoP has taken and how to update accordingly the manifesto, if needed. There is also a section to include the names of the attendees of the past meeting in order to know the regularity of each. And, finally, in between meetings, it is necessary to define the agenda of the following session, that all participants should have in advance. This agenda should indicate activity by activity the starting and closing time of completion. Further details about these steps are delivered in the Annex 4 of the present document.

It is expected from people to move between different levels of participation and commitment over time. CoPs are self-organizing, and their members have the freedom to determine their own level of engagement that is different from other working groups.

When the CoP process is reaching its end, it will be a good idea to ask the members to assess the CoP, so also the impressions related to the activity are put in common.

2.4 Meta-CoP: specific support for local CoPs

The Meta-CoPs were large virtual meetings with the participation of most of the facilitators and other participants from the local pilot CoPs. It was a space to share experiences and insights about the realization of the local CoPs, verify alignment, understand if all the CoPs are on the same page, and offer guidance for the issues that may arise in a particular meeting. In a Meta-CoP different participants could share problems faced during the organization, arrangement or coordination of the local meetings and request for the input of other pilots. It was also a space for working in integral and shared activities, where people from different locations and background could exchange and create common approach for issues. A tool as the META-CoP was identified as the best way for sharing difficulties that local CoP leader could face, and solve them together.

Three META CoPs were organized during this past year and half of the INDIMO project. Then the META CoP tool was supported by the bilateral meetings organized every 15 days with each pilot where the CoP organization and update were discussed.

The first Meta-CoP was organized in July 2020, before most of the CoP meetings started to take place (in fact, in the second half of July 2020, the meetings started in most of the pilots). This Meta-CoP operated as an introduction to the group dynamics and a place for all the participants to share their expectations and motivations for the realization of these activities. This first activity was about building up a narrative that could motivate the remaining participants; to enable the CoPs to reach those citizens that cannot have access

to the same services, contributing to the creation of digital systems more accessible and inclusive. During this meeting, cambiaMO team provided guidelines for running the CoPs and explained their scope and expected outcomes of co-creating a common knowledge, co-designing Digital Mobility and Delivery solutions and empowering participants in carrying out both previous activities. Different resources for the CoP, mainly specialized literature was shared. Finally, participants were asked to provide a word to define how their CoPs meetings should be framed and the debate was opened.

The second Meta-CoP meeting was organized in November 2020. The dynamic started with a welcome activity where participants had the opportunity to share the status of their respective local CoPs. There were comments about the enthusiasm of participants, the results and analysis that have been achieved so far, and the horizon for continuity. The problems for moving forward with the pilot in Emilia-Romagna were also exposed and inputs from other participants were asked. Later on, some tools for fostering creativity and ideas coming out were illustrated, such as brainstorming, detonating questions, SWOT analysis, Scenarios etc.

Finally, a role play was proposed among the Meta CoP members relative to a conflict resolution. The context is a conflict emerged in P2-Antwerp CoP, about the location of sensors for traffic lights, either physical at the traffic light or digital in an app used by the potential user. The participants were assigned different roles to match each of the stakeholders (Users and City Administration) in order to generate a diversity of views and empathise with specific community problems. The Users were in favour of Sensors at the traffic light while the City administration favoured the sensor built in the app. In the end of the exercise, some points of consensus emerge with regards to the possibility of using both technologies in a combined way and customizing the app for those who fear data privacy problems. And the point of limited budget was also shared by different voices.

The third Meta-CoP meeting took place within the Co-creation workshop #2 in May 2021. There was an update of the status from the different pilot CoPs and a presentation of the coming up meetings. The central focus of this Meta CoP was the split of the large group in five different smaller groups to participate in a group dynamic with one coordinator and note-taker and visual aids to move forward the flow of the exercise. Each group would work with one of the Persona characters developed in the Task 1.2. The idea was to brainstorm, comment and debate about the experience of this assumed user for every step of the process: registration, order/purchase and use of the service. Some obstacles were introduced in the middle of this commented and co-created journey map. After the groups created their own insights and opinions, they were later shared in the plenary group with all the participants. This debate and common share in the co-creation workshop enabled the production of additional requirements that were lately considered as input for the validation of the Universal Design Manual-V1.

3 Analysis of CoPs' activities of co-creating knowledge and empowering participants

The CoP is a space to create common perspectives through group dynamics, debates, and simulations along with other co-creation techniques. It is also an adequate environment for transferring experiences of different geographical and idiosyncratic settings. This creation is not the result of spontaneous encounter of people but the consequence of a work of coordination and moderation of the activities to render productive results. An agenda for each of the meetings with a clear thematic focus is worked out and followed, as described in previous section.

The CoPs from the different locations were nurtured with the participation of users and non-users representing selected vulnerable-to-exclusion groups. This selection was done considering the profile of vulnerability that was tested for each of the five pilots. These profiles chosen were presented in previous deliverables (INDIMO D1.2, 2021 and INDIMO D1.3, 2021). Local Non-governmental organizations (NGOs), neighbour's associations, public institutions, academic specialists and operators of logistic and mobility services were recruited to take part of the meetings, many times as representatives of specific population groups.

In this way, CoPs offered an opportunity for testing and validating various learnings that arose from previous stages of research: the semi-structured interviews (SSI) of Task 1.3 and the Persona construction of Task 1.2. Especially remarkable were the following three rounds of testing and validation: the Universal Design Manual users' requirements, the assessment of icons for the Universal Interface Language - UIL and the appropriation exercise for the deliverable 2.5 on *Enhancing appropriation of digital mobility solutions*.

The **requirements prioritization** process for the UDM was the first of these exercises, carried out in the context of Task 2.1 - Universal Design Manual for developers of digital transport system. Starting from more than 80 requirements extracted from the in-depth interviews and stakeholders' interviews in Tasks 1.2 and 1.3, the most relevant ones were selected to have a manageable number of items to validate during the CoPs. As we will see throughout this report, the requirements were discussed behind the users' perspective and rated by the participants of the meeting, according to the importance and relevance they assign to each of the items in respect to the use-value. Afterwards, an estimation of this use-value rating in terms of time effort has been done in bilateral meetings between cambiaMO and the developers of each pilot. Requirements listed for each pilot (in following subsections 3.1 to 3.5) are displayed in different background colours, according to the legend described in Table 1.

Table 1. Colour and scale legend for Requirements prioritized at each CoP

Colour legend for Requirements prioritized at each CoP		Scale for prioritization		
	Main requirements (from D1.3)	1	2	3
	Additional main requirements for specific pilot (from D1.3)	Low effort	Med. effort	High effort
	Requirements by persona (from D1.2)			

Participants at each CoP were asked to rate the requirements according to their level of priority, being 3 a high level of priority, 2 an intermediate level and 1 a low level of priority.

Later on, and based on the results of the personal survey, a consensus was reached among all the members and through debate, establishing a final common level of priority reached through agreement. In the following sections the result of the rating of requirements is presented. Results are further analysed in Deliverable 2.1 - Universal Design Manual - Version 1.

The **icons assessment** for the UIL was a co-creation and participative exercise carried along by every CoP in the framework of Task 2.2 Universal Interface Language. Participants were shown different universal icons that are expected to be found on many of the apps. The icons had no reference nor text associated and participants had to explain what functions or indications they believe were linked to each of the icons. The layout of a similar platform to the one corresponding to the pilot was also shown to elicit comments and observations from the CoPs participants. Results are further analysed in Deliverable 2.3 - Universal Interface Language - Version 1.

Finally, in the **appropriation exercise** the orientation of potential users towards installing and getting familiar with an app was explored in the framework of Task 2.3 Enhancing appropriation of digital mobility solutions. Some of the aspects of the usability and appropriation of the apps are well covered in the results of the INDIMO Baseline survey (see Deliverable D4.2 - Baseline data report for pilots). There remains to complete the appropriation of digital mobility apps in the following items: (1) the users' willingness to adjust default settings to one's own needs and abilities, (2) the role of social support and social norms, and (3) app use for socializing and leisure. Consequently, a dedicated CoP to cover these aspects was proposed to pilots. Results will be further analysed in Deliverable 2.5 - Enhancing appropriation of digital mobility solutions.

A description of the main activities and findings for each pilot CoP follows.

3.1 Pilot 1: Digital Lockers – Emilia-Romagna

In this pilot, the focus of the discussion deals with barriers to the use of technology given by age, language and income. It is also about the knowledge of the existence of technology available and their familiarity. Experiences with digital platforms, their accessibility, their

ease of navigation, the problems that may emerge when lacking digital skills (for instance, not finding buttons to perform actions, ignoring general rules of web operation), the security and safety concerns, they all were explored.

3.1.1 Key activities developed during each session

A description of the main activities carried out at the Emilia-Romagna pilot is provided in Table 2.

Table 2. Key activities developed during each session at Pilot 1

Session number and date	Key activities
Session #1 December 10th, 2020	<ul style="list-style-type: none"> • Participants introduce themselves and their motivation for taking part in the CoP; • Presentation of the CoP format; • Starting debate about the digital lockers project for Monghidoro, their views on the problem and challenges for rural areas, specially related with the level of services and the infrastructure of the digital connection.
Session #2 March 12th, 2021	<ul style="list-style-type: none"> • Presentation and explanation of users' requirements from SSI fieldwork; • Participants rate the priority of each users' requirement by profile and by persona.
Session #3 April 29th, 2021	<ul style="list-style-type: none"> • Participants' interpretation of icons language found in similar digital apps; • Participants' interpretation and debate about icons language of an app related to the pilot.
Session #4 May 26th, 2021	<ul style="list-style-type: none"> • Participants explored reasons for appropriation of new apps.

3.1.2 Main topics that arose during the open debate stage

Valorisation of rural life due to pandemics

It is recognized from the municipality of Monghidoro that the pandemic has led people to view rural areas in a different way and many are considering moving to Monghidoro or similar settings. Although they have less services, they offer more opportunities to spend time outdoors and with a better quality of life. People living in urban areas realized that



being locked at home makes rural locations more valuable, and at the same time much cheaper compared to the urban areas of the Metropolitan City of Bologna. Also, the government of Emilia-Romagna Region has provided monetary incentives to citizens that decide to move to rural areas. As a consequence, Monghidoro could face new challenges associated to its potential growth and the inclusion of a number of new residents. They have already received the notice of tens of families that expressed their interest in moving to Monghidoro (or have already moved). However, these families expect to find in the location similar services to those they previously had in urban contexts (Davezies, 2008). This implies a challenge for the municipality to modernize and be up-to-date in the deployment of optical fiber and the digitalization of paperwork and other functions, which are part of a wider project of digitalization.

“Currently, we have tens of families that have expressed interest to move in Monghidoro. This is good news but people that move here expect to have services. We had, for example, delays in obtaining optical fiber (internet)”. (Policymaker)

Some stakeholders recognize the opportunity for the Apennines region and the challenges that rural areas are facing; but that the increase in digital services is conditioned by the barrier of the digital skills of older people. There is a problem regarding the know-how and familiarization with computer and mobile technologies. It should be seen not as a structural problem but as a barrier to be overcome.

“...if we want more people to live in places like Monghidoro, we need to increase the level and number of services. There is a problem with the digitalisation of elderly people”. (Policymaker)

Finally, it is mentioned that some of the current constraints of the infrastructure of the rural villages offer room and opportunities for the emergence of new services that target the current problems.

“In Monghidoro, problems such as the slow internet connection, the fact that public transport is not very good (one must have a car) and, finally, deliveries take very long to arrive. I like the idea of having a pick-up point for my deliveries.” (End-user)

Fear regarding the replacement of the physical Post Office

From the oldest association of residents, Le Pozze, there were concerns with regards to the deploying of the service of digital locker if this is meant to replace the existing physical Post Office. If the digital locker overtook the role of the physical office, this would lead not only to a loss of employment but to a deterioration of the accessibility conditions for those who need physical assistance. And there is an added value in the Post Office as a place of encounter and socialization, which means, that it goes beyond its practical functionality. The representative of Le Pozze considers that there are other priorities in the region, in this way:



“We need other testing activities in this territory and there would be more important things to do in the Apennines. Our fear, also by talking with other members, is that the digital locker will replace our Post Office. Will the digital locker overtake the role of the physical office? The Post Office is also a place for socialisation!” (User representative)

Other participants also mentioned the possible negative impact over the network of stores that could feel threatened by this innovation and implementation.

“We should consider this not as a “obstacle” but a problem that can be solved. He finally considers that e-commerce is a trend and there is a problem in rural areas, because maybe this will impact on the local network of shops. There is a need to investigate better how these realities can co-exist. Bologna will sign a Pact for Labour and Sustainable Development” (Policymaker)

It is also explained that the intent is not to close the Post Office but to multiply channels that people face to enjoy the same services.

“INDIMO project is here to extend services, not to take out any service. Somewhere we should start to work on digitalisation”. (Researcher)

There are serious complaints that there is a large demand for the presential services and this can lead to congestion at the site.

“The Post Office is continuously busy with many people not observing social distancing, also due to the location. Many citizens are complaining about this. This is a big problem for the pandemic. Can Poste Italiane do something about it?” (policymaker)

“...very interested in the idea of digital locker, because there is a long line in the Post Office” (End-user)

The opportunity to meet their needs by having more alternatives is particularly central for this pilot. People fear that the level of current National Mail service will decrease because of the digital lockers installation. The aim of the CoP is therefore also to enable participants to see that the digital locker service is an alternative, and not a replacement of the current national Mailing service.

Generational aspects

The matter of the age digital divide and the adaptation and interest of different generations on technology is a subject that frequently arises. It is clearly expected that the impact of the inclusion will be differentiated for different segments, as it is presented here:

“Although there may be people that may not like it, but she thinks that especially younger generations will appreciate it”. (End-user)

The agglomeration of people in the Post Office in the context of pandemics involves serious concerns for the older people who are more at risk with its health consequences. The difficulty for observing social distances (and make them observed) could be a point of interest for the new services.

3.1.3 Rating users' requirements

The session opened with a collective reflection on the potentiality of the project, with critical voices regarding the possibility of success in the implementation of digital tools in this rural context. The analysis conducted at Monghidoro highlighted, with reference to the target of older people, that they do not feel comfortable with technology and do not consider e-commerce an alternative to be used autonomously. Therefore, their requirements entail the human presence that can assist in the use of digital services. With reference to the target of foreigners however, it emerged that this segment is familiar with e-commerce but have language barriers (moreover, the use of the service by women is discouraged by the community); their requirements focus on the availability of language choices and the possibility that the school becomes a vehicle for the adoption of technology through the empowerment of the youngest members of the migrants' community.

Later on, the activity of requirements prioritization began. Through a simultaneous conversation facilitated by cambiaMO researcher, CoP participants had the opportunity of rating the requirements according to their level of priority, being 3 a high level of priority, 2 an intermediate level and 1 a low level of priority (see Table 1 at page 21). Later on, and based on the results of the personal survey, a consensus was reached among all the members and through debate, establishing a final common level of priority reached through agreement. The complete table with the requirements is shown in D2.1 Universal Design Manual.

Human assistance appeared as a number one priority for policy makers, end-users and stakeholders' organizations. It is an important requirement and was rated with the highest possible value. It goes in line with the availability of 24 hours of remote support. It was often mentioned during the debate that older people may still need help in the use of digital services, even when there might be adaptations in the physical and digital interface. With regards to the engagement of associations with ties with the target audience, it was remarked as important to facilitate the spread of digital services and even the spread of the digital culture. Privacy and data security concerns did not awake as much passion and interest as other items of assistance and guidance. But it was highlighted that the registration must avoid complexity to ensure compliance. There are also claims about the importance of awareness campaigns and a communication strategy, and that they should be under the responsibility of the operator and not of the local authority.

3.1.4 Assessment of Icon Language in the CoP

The CoP on the assessment of Icon Language in the CoP was held in Castel D'Aiano, a Municipality near Bologna. The location is different compared to Monghidoro, because there was the opportunity to discuss with more people including foreigners. Castel D'Aiano is also a rural area and the target groups involved included elderly people and foreigners.

After a broad presentation of the project and the pilot in Monghidoro, each participant was given a paper copy of the presentation of CoP#3. The timing for the session was tight for the target audience. Actually, at the end of the session some people were still talking about the first screen of the digital presented icons. They argued that the icons of the Poste Italiane app (necessary to use the digital locker) are not intuitive to understand. Also, it is not clear whether the process can be restarted or not: if there is a problem, can the user go back and try again? One of the participants thinks that sometimes it is not so easy because of security protocols, so maybe you are not able to go back.

Before closing the meeting, ITL asked if they had any comment regarding all the slides that they had seen. Looking back at all the screens of the app, they all agreed that most of screens were quite unclear, not so intuitive. They said that probably they would not be able to use the app by themselves.

Overall, only one person of foreign origin (R3) joined the conversation, all the others did not say much. Many people were not comfortable talking about “digital stuff”. This is a recurrent theme for the CoPs in Emilia-Romagna: foreigners are not so willing to talk or to join the CoPs, and also elderly people are not used to express their opinion in an organised meeting.

3.1.5 Appropriation exercise

The CoPs were meant as spaces for the support of the fieldwork and the collection of data of the target users. It was an environment optimal for the creation of knowledge and empowering of the potential users, and a space to interact with the fieldwork. The CoPs were then suitable dynamics to encourage participation and try assessment exercises such as the rating and prioritization of user's requirements towards the apps/services, the evaluation of the icons and screens of the apps and the exercise of the appropriation of digital mobility applications. The following items were covered with the appropriation exercise: (1) the users' willingness to adjust default settings to one's own needs and abilities, (2) the role of social support and social norms, and (3) app use for socializing and leisure.



1. A Sli.do¹ instant poll was proposed to carry out reflections on adjust default settings. It emerged that mobile apps are part of the current human daily-life and in general are well accepted when channelled through the non-invasive and subtle advertising.

2. Two breakout rooms were settled to tackle **point (2)**, with the aim of giving pros and cons arguments for the apps installation and use. This provides a more focused and meaningful debate about the appropriation of digital mobility apps / services / solutions. The result of the exercise will be shown with greater detail in the Deliverable 2.5 on *Enhancing appropriation of digital mobility solutions*. The main insights are that after downloading the app, a learning period is needed to pick up the best use and the benefits that the app brings. Another insight is the importance of recommendations from acquaintances to build trust relationships with the apps. Word-of-mouth has a lot of influence, mainly for older people living in a rural context.

3.2 Pilot 2: Inclusive traffic lights - Antwerp

The purpose of this CoP is sharing experiences about accessibility, the use of the public space, the relation of pedestrians with other modes of transport (e.g., cars, bikes, e-scooters), the specific conditions that age and disability imply for independently moving. Activities of collective problem-solving are welcome.

3.2.1 Key activities developed during each session

A description of the main activities carried out at the Antwerp pilot is provided in Table 2.

Table 3. Key activities developed during each session at Pilot 2

Session number and date	Key activities
Session #1 July 16th, 2020	<ul style="list-style-type: none"> • Round table presentation of participants • Presentation INDIMO Project - Community of Practice • First reflection on the setup • Smart traffic lights: a closer look at problems • Summary and next steps
Session #2 October 10th, 2020	<ul style="list-style-type: none"> • Introducing new members • Status of traffic lights in Antwerp • Discussion on principles

¹ <https://www.sli.do/>





Session #3 January 28th, 2021	<ul style="list-style-type: none"> • Gathering insights in explorative research • Scoping of the project (Proof of concept in Antwerp) • Insights in next steps on the set-up of the Proof of concept
Session #4 March 31st, 2021	<ul style="list-style-type: none"> • Requirements prioritization exercise • Participants' interpretation of icons language found in similar digital apps
Session #5 June 1st, 2021	<ul style="list-style-type: none"> • Appropriation exercise by participants

3.2.2 Main topics that arose during the open debate stage

Organization of public space

There is a shared thought that the implementation under discussion challenges the installed and accepted view on traffic and organization of the city that prioritizes the flow of motorised transport over other concerns. The implementation of these traffic lights is picturing the users of the street in a broader scope, thinking of pedestrian right from the start, as it is remarked by these verbatims:

“There is a lot of focus on the flow of transport (smooth flows), but the environment of a stop, for example, is also important (crossing to the stop, the stop itself and the route to the stop) to work on accessibility” (User representative)

“A broader view also needed on the organization of public space. The layout of the public space is often still focused first on the flow of cars and public transport, whereby cyclists and pedestrians are added if the first is planned”. (stakeholder)

But this also implies that a device or solution that targets a specific target should be recognizable for the population targeted. The solution has to render possible to identify without generating and stigma on the oriented groups.

“Recognition and uniformity for pedestrians are also important”

“Recognizability for different pedestrians is also important. What is the use of someone crossing somewhere? Pedestrians have different intentions? So: what is the use of the location chosen for the target group?” (Policy maker)

“How to show that the traffic light is “smart”?”



Different groups, different functionalities

One of the questions that arose during the CoP's meetings is regarding the capacity of providing a unified solution for different targets with different needs. It is pointed that the need of a people with reduced vision and people with reduced mobility or older people are not exactly the same, and they might have contradictory demands towards the service. And also, how would the coordination be between special groups of vulnerable-to-exclusion populations and the general public of other users of the streets.

"How do you ensure a relationship between different pedestrians themselves e.g.: if you only design light with a certain group in mind, you forget that other pedestrians also have to use that light".

"Basic problem is that everyone wants priority, so how to distribute the cake properly? Defining moments is crucial"

It is mentioned that the real problem is that during the design phase, we should not think of two extremes of capability or impairment but rather on different grades of capability that makes the matter more complex.

"Be careful with profiles: it is rather black with shades of grey than black / white".

Conclusion: smart traffic light will have to be viewed in layers from four dimensions that are interwoven and from different profiles of users (even if the project focuses on two profiles).

- light itself and its prioritization
- immediate furnishing itself around it (visual, use, ...)
- route to reach there
- wider public space within which the light will stand / work.

The questions that will be faced in the following meetings of the CoP is which choices to make? In what context? How do we generate a shared criterion to weigh up the alternatives?

Following, the participants of the CoP discussed the possible alternatives for the technology that will be associated to the traffic light. The ideas that came about regarding the shape of the solution are the following:

- push-button foot: difficult for people with walking difficulties
- square green light: difficult with rattle ticks
- Rattle ticks: often complaints about noise, but important: often useful for people for whom the traffic smart light tool is not primarily designed (eg: people who read their smartphone at a traffic light).

It was agreed that in the following meeting a policymaker with responsibility in the issue would make an overview of possible locations for smart lights in Antwerp. They will follow up on this. Participants were also informed that the organizers were also interested in interviewing people from the 2 target groups.

The second CoP meeting, started with an introduction of the new members compared to the first CoP organized in July 2020. Based on the previous CoP meetings when the members concluded that a unique digital mobility solution for smart traffic light was complex to develop, the CoP is exploring the option of starting with a digital smart traffic lights oriented to one of the selected target-group: people with reduced vision. Therefore, two developers of IMEC started working on smart traffic light solutions for blind people in the context of a Flemish funded project on open data in the realm of mobility. The new people from De Lijn belong to the department that monitors accessibility were specialized on traffic flow for busses (hence lights were important on their day-to-day activity) and on the design of bus stops.

The initial aim of this CoP was to define concrete test and deployment locations in the city of Antwerp based upon a presentation by the transport infrastructure department of the city of Antwerp. However, due to agenda-issues, the scope had to be changed into a broader insight on what smart traffic lights can do, which technologies exist today and how and where they are implemented in Antwerp and what the main lessons are. A presentation was made by IMEC and the city of Antwerp and shown in the meetings.

Each current technology or feature – a special knob/button, showing the remaining time of green light, the Post Offices (machines that make sound to guide blind persons at a crossing) – was reviewed from an accessibility point of view. On the other hand, the head of the transport department framed the desired solution within broader concerns of traffic management. Some conclusions may be sketched from the first meeting of the CoP of Antwerp:

- There will be a tension between those in favour of selecting a specific audience within the three target groups and those taking universal design in its broad aspect as starting from the most vulnerable category first (for example: if one chooses an app to exert the detection and light, it could be thought that those without an app are ‘excluded’).
- How to work well in the interest of the three target audiences? Are there not opposing interests between older, mobility impaired and visual impaired people? Research needs to confirm or discard this point.
- It was supported that there is a need for a SOTA (State of the Art) for each technology in relation to the outcomes of the work done with stakeholders and non-



users in Antwerp/Flanders in order to support the decision making and make informed discussions in the following CoP meeting.

- It will be beneficial to involve end-users as well and allow their voice to be heard in the CoP. We should be careful not to, given the current composition, only have a conversation among ‘experts’. ‘Daily life experts in the field’ will be as relevant to include. People and stakeholders from the interviews will be contacted to join the CoP.

3.2.3 Insights in explorative research and scoping of the project

A brief report about the status of the semi-structured interviews was given to the audience. The stakeholders and their represented groups were presented. The results were shown; as conclusion, every target group is specific but there are some links between them. When the focus is on people with reduced vision for our project, other target groups as older people and people with reduced mobility are also benefited. Therefore, the phases of the implementation for testing were further explained. In the first phase, the focus was on blind people who travel. As possible functions, active traffic light that requests green light, the extension of green time and a real time feedback with regards to the status of lights. The first demo executed was the mobile rattle ticker. Many points were discussed. In the first place, the speed of the tickling in the demo that was considered by many participants as too fast. It was said that it could be adapted according to the preferences of the user.

Another possible idea that came about in the CoP meeting was a camera scanning a figure on the traffic light. The camera needs to be targeted at the figure; a smartphone can be attached to a neck case to recognize the figure in an easier way.

Another member explained how important for the blind pedestrian is to keep a straight line when crossing. The smartphone is a good accessory to help in this task because it has a gyroscope to know the orientation of the person. There was a debate about the operationalization of the measure. It should still be defined whether the communication with the traffic light facility is done via an app or via a beacon on the same light. There is also a concern about the misuse and abuse of the solution, it being used by “the wrong people”.

For some stakeholders, extending the current green phase is possible so users do not need to wait until the next iteration. Other possibility is shortening red time in order to turn to green faster. For other stakeholders, prolonging the light does not seem necessary.

Another topic that came about is how the smart traffic light can determine the exact location of the vulnerable person to estimate the remaining time of green needed. In the case of users of wheel-chair, by rotation of the wheels, the position can be determined pretty accurate. The position of the pedestrian is harder to determine but it is possible to handle the speed and position with estimations.



3.2.4 Rating users' requirements

This activity consisted of gathering the input of the CoPs participants with regards to the main requirements from users and non-users that were extracted from the analysis of the previous stage of SSI as part of Task 1.3. These inputs were gathered for the five distinct pilots. Therefore, the profile characteristics of the Antwerp pilot were explained to the CoP participants and there was a brief explanation of each requirement. CoP participants had the opportunity of rating the requirements according to their level of priority, being 3 a high level of priority, 2 an intermediate level and 1 a low level of priority (see Table 1 at page 21). The complete table with the requirements is shown in D2.1 Universal Design Manual.

The discussion about the requirements was basically oriented on the following main points:

1. **Uniformed icons and spatial organization:** it was said that it is important multi-channelling the messages and to have the icon and its description together to make the digital message more understandable. In case of blind persons: also, auditive signal should be included.
2. **App updating:** There is an agreement that the user should be asked about future updates and they should not be executed automatically.
3. **Length of the traffic light adjusted to the user's needs:** there are some doubts regarding what the right policy is. Some people think that it is not the correct decision to start off with the wrong design and include exceptions for certain groups. This implies a procedure to define the extra time and a good limitation of the target audience.
4. **Sign that communicates the status of the traffic light:** somebody said that it should not be a voice of a person. There are some examples of this, but it is a matter of geography. The user can get the information via the app, or a remote or via a specific button. Also, the context of the tram tracks can be communicated. There is not a clear consensus among the group whether to establish a visual signal or a voice, and the alternatives that these choices open.
5. **Requirement about no action demanded,** as such it is beneficial to work as less as possible without hands. All that depends if there are no other factors that interfere to force a usage of hands or also the information that is communicated. For example, for the first potential restriction: Sometimes people also play the text fast or keep the mobile close to ear due to a lot of contextual noise. Because of surrounding noise, people will have the device in their hands despite a handsfree solution. For the second potential restriction, it all depends what you communicate and which actions follow on in your design. As much handsfree as possible, but it should not be a 'dogma' to be handsfree. A lot should be learned here in testing. It should also be considered the presence of a guidance dog that can also influence the need for handsfree solutions or the way you build that modality. For example: if the dog takes over certain functions to be guided in the traffic, you can be more focus in your design and do handsfree. If there is no dog, the context is different.



6. There appear also some indications about **avoiding the technology push**, the impulse towards technology as only solution. Guidance stones on the ground also have their role to play and are particularly useful/effective. Rattle tickers on the light can also have a function to warn/inform, for example, when a blind person meets another person, the rattle ticker allows for more contact (as the rattle ticker can inform about status light) than an app that can force someone to walk and stay in a certain flow.
7. **Reliability** (which appears in requirement R4.52): the operationalization includes both normal day operation and special events.
8. **Terms and conditions summarized in checkboxes**: it is advisable to keep an eye on what can be done via other ways, for instance, mail, and what is necessary to check on the app.
9. The **emergency button for emergency/sexual attack** seems complying with an objective that deviates slightly from the original objective of the app, according to many of the participants.
10. The **COVID-19 protocol** is seen as an additional accessory to the original purpose of the app. It is suggested to keep it in a separate track, since also the general context of a vulnerable group changes in a COVID-19 context.

Finally, during the requirements debate it was highlighted that when the target audience and the usage context is too narrowly defined, other opportunities are missed where the app can support other pedestrians with impaired sight.

3.2.5 Assessment of Icon Language in the CoP

This consisted of an interactive exercise that involved a work of interpretation, visual analysis and debate among all the members of the CoP. All the participants were shown, first, icons that are typically part of the iconic language of most of the mobile apps; and secondly, screenshots that are from actual interface of the app. With these scenarios in front of their sight, participants were asked for their inputs about: a) the meaning of the icons; b) other icons that could be used to convey the same meaning; c) elements that were unclear or produced confusion in the visual outlook; c) elements that could be added for clarification or a more accurate communication; d) other elements that should be born in mind at the time of designing a graphic interface. The detailed assessment of the screen an icons is part of the Deliverable 2.3 containing the Universal Icons Language.

The following are the main insights that can be highlighted from the exercise.

- It is important not only considering blind people in the design, but also include people with reduced vision (visual impaired). In that case, colour contrast is fundamental. In the case of colour-blind people, they see everything grey and the circle on the image will be seen as a shadow. They have special problems with the identification of red and green that must be taken care of.
- There should be adjustments related to the inclusion of voice-readers. For example, the possibility of swiping in the screen from block to block. And images should not





be too busy and crowded with items. This is meant to make the reading and interpretation clean. The image should have enough quality to make a zoom in.

- Automatic information and only relevant data should be provided by the app. Otherwise the risk is that the focus is on the app and not on the flow of traffic. If the blind person is following the route, a logical order of the crossroads should be built in the app.

There are some questions about the procedures that are required from the user. For instance, some participants ask whether the sound signal is automatically halted when the user reaches the other side of the street or whether they have to manually stop it. But the beeping should not interfere with the signal from another crossing, otherwise confusion will be generated. The height and tone of the signal should be diverse to mark these differences. Some participants include the possibility of adding a buzz option in the app to provide further information. Signal of activation and the status of the light are key points to work through different auditive and visual signal. In the app, it should be paid attention to contrast of colours (considering colour-blind also) and the fonts (small letter rather than capital, for voice readers).

It is said that the app should address those segments of a blind person trajectory in which he has no additional assistance. It is likely that blind people do not use the app for all trips or for all segments of the trip, but it is seen as a support tool in case there is no assistance available.

3.2.6 Appropriation exercise

As we have already mentioned, the CoPs were suitable dynamics to encourage participation and try assessment exercises such as the rating and prioritization of user's requirements towards the apps/services, the evaluation of the icons and screens of the apps and the exercise of the appropriation of digital mobility applications. The principal conclusions of the exercise was the presence of a feeling of reluctance towards the excess of notifications, the importance of the feedback from family and friends and the relevance of technical aspects such as the battery or the memory space in the mobile phone. More details of this assessment can be found in the Deliverable 2.5 on Enhancing appropriation of digital mobility solutions

3.3 Pilot 3: Informal ride-sharing in ethnic towns - Galilee

In the context of this pilot, the focus of the CoP deals with discussing the ethnic approach to the city, the combination of both gender and ethnic perspective, the language barriers that may prevent or inhibit the use of services, and accessibility to technologies of women vulnerable groups. Simulations and role play during the sessions are welcome, especially focusing on the steps to get a service and the situations involved in the trip being achieved.





3.3.1 Key activities developed during each session

A description of the main activities carried out at the Galilee pilot is provided in Table 4.

Table 4. Key activities developed during each session at Pilot 3

Session number and date	Key activities
Session #1 July 22nd, 2020	<ul style="list-style-type: none"> • Introduction to the CoP, warm-up, ice-breaker • Presentation of the key ideas and narrative of the CoP • Wrap-up and next meeting arrangement
Session #2 March 3rd, 2021	<ul style="list-style-type: none"> • Presentation and discussion about the Universal Design Manual • Presentation and discussion of users' requirements related to the profile and Galilee persona exercise.
Session #3 April 5th, 2021	<ul style="list-style-type: none"> • Participants' interpretation of icons language found in similar digital apps • Participants' interpretation and debate about icons language of an app related to the pilot.
Session #4 June 8th, 2021	<ul style="list-style-type: none"> • Appropriation exercise by participants

3.3.2 Main topics that arose during the open debate stage

First, the developer explained the birth of SAFARCON, a ride-sharing app addressing Arab community in general and women specifically. His aim was to improve the accessibility of the app. This stakeholder mentioned that the app is well built and that the main need was to promote it better among its target audience. He explained that mainly the young segment downloaded the app. There came about the issue of the women's experience. Women should feel safe ridesharing with unfamiliar men, and also about the safety of the vehicle. An emergency button and features similar to Sekura women's safety app could be introduced. Regarding safety, there was an additional suggestion of adding users' ratings about their experience with drivers. Some stakeholder suggested the use of coupons to incentivize use, for instance, coffee coupons at arrival or destination. Additionally, some stakeholders pointed out that it was not a matter of offering incentives but of emphasizing the added value of the app.



Some participants highlighted the importance of integrating the app with social networks in order to increase safety, since you could know about usage and opinions of your Facebook friends. In this line, the importance of the promotion and communication came about. It was pointed out the relevance of expanding and generating positive network externalities. Some believed in the collaboration with social media influencers and a radio program. Some stakeholders thought that the best way is to engage authority pilots.

There was a final suggestion about adding voice-recognition feature to make the app more accessible and help overcome digital barriers.

The following is a summary of the main actions recommended by the stakeholders as a result of this CoP:

#	Type	Description
1	Tech	Add ID Validation
2	Tech	Add voice-recognition support
3	Tech	Add Driver rating feature
4	Tech	Add vehicle Test and maintenance info
5	Marketing	Collaboration with social media influencers
6	Marketing	Advertise via Radio program
7	Tech	Radio program direct listening support in App
8	Tech	Add emergency button, and safety features (e.g. Sekura, MyGaurd, Musketeer)
9	Marketing	Consider incentives such as coupons and digital vouchers
10	Marketing	Promote via Facebook page
11	Finance	Apply to the Innovation Authority Smart Mobility pilots program (6M NIS grant)
12	Operations	Implement in defined region / focus group to maximize App usage impact

3.3.3 Rating users' requirements

Similar to previous pilots, the participants were presented the users' requirements that have been selected from the SSI and Persona exercise for their assessment (see Table 1 at page 21). The complete table with the requirements is shown in D2.1 Universal Design Manual.

3.3.4 Assessment of icons language in the CoP

This assessment consisted of an interactive exercise that involved a work of interpretation, visual analysis, and debate among all the members of the CoP. All the participants were shown icons that are typically part of the iconic language of most of the mobile apps. The app icons have been discussed by the three external persons and only afterward by the developers and Technion team who already know the app. The detailed assessment of screens and icons is presented in the Deliverable 2.3 corresponding to the Universal Icons Language. The main conclusion of the exercise is that it is important to identify who are we designing for, because icons do not hold a unique meaning.

3.3.5 Appropriation exercise

The session had a group discussion where the focus of attention was how the social norms, culture, language, and gender are influencing the appropriation of mobility apps. It comes down to a given personal preference, considering usefulness, privacy, security, accuracy, reliability and functionality. The main conclusions of this exercise are that reviews, comments and recommendations of other users are important for the appropriation experience. Technical limitations might appear, such as the storage limitations or the battery consumption of apps. There might also be cyber security concerns and the fear of getting addicted to apps, for its mere presence encouraging the use. A more detailed analysis of the results of the appropriation exercise can be found in the Deliverable 2.3 on Appropriation of digital mobility solutions.

3.4 Pilot 4: Cycle logistics platform for delivery healthy food - Madrid

The reason for implementing a CoP is to discuss among the relevant actors the actual use, proximity and ease of use of e-food delivery as a way of tackling isolation of vulnerable populations. The safety and security concerns are also treated, along with the specific situations that the Covid-19 pandemic gave rise to. Digital skills, speed of Internet connection and technological barriers are also important matters to work on.

3.4.1 Key activities developed during each session

A description of the main activities carried out at the Madrid pilot is provided in Table 5.

Table 5. Key activities developed during each session at Pilot 4

Session number and date	Key activities
Session #1	<ul style="list-style-type: none"> Participants introduce themselves and their motivation for taking part in the CoP



July 23rd, 2020	<ul style="list-style-type: none"> • Presentation of the CoP format • Starting debate about La Pájara/Coopcycle app, their target users, the service, the values of it.
Session #2 September 22nd, 2020	<ul style="list-style-type: none"> • Brainstorming assets and values of the La Pájara/Coopcycle platform • Summarize of assets and values discussion • First proposal of SWOT analysis of a digital food delivery service
Session #3 October 20th, 2020	<ul style="list-style-type: none"> • Inclusion of new elements to the SWOT analysis of a digital food delivery service • Presentation of future steps of the project: UDM and UIL sketch, baseline survey for Madrid pilot at the end of year, assessment of participation in the CoP.
Session #4 November 24th, 2020	<ul style="list-style-type: none"> • Presentation and feedback from participants on the questionnaire for the baseline measurement for Madrid pilot (phase 1). • Presentation and feedback from participants on the communication campaign associated to Madrid pilot (phase 1)
Session #5 January 12th, 2021	<ul style="list-style-type: none"> • Feedback from participants on the functioning of the platform in the face of Madrid pilot phase 1. • Description and debate over the preliminary results of the baseline survey. • Presentation of following steps in the fieldwork of the baseline questionnaire • Summary document to be made from sessions 1 to 5.
Session #6 February 9th, 2021	<ul style="list-style-type: none"> • Feedback from participants on the summary document sessions 1-5 • Feedback from participants on the development of Madrid pilot (Phase 1) • Ideas proposed for following meeting
Session #7 March 9th, 2021	<ul style="list-style-type: none"> • Presentation and explanation of users' requirements from SSI fieldwork • Participants rate the priority of each users' requirement by profile and by persona.





Session #8 April 13th, 2021	<ul style="list-style-type: none"> • Participants’ interpretation of icons language found in similar digital apps • Participants’ interpretation and debate about icons language of an app related to the pilot.
Session #9 May 18th, 2021	<ul style="list-style-type: none"> • Appropriation exercise by participants

3.4.2 Main topics that arose during the open debate stage

Values of the app

During the debate stage, the main perceptions and opinions about the app and the service where the grounded base to trigger different co-creational activities and conversations. It could be observed that the main ideas were oriented to the service and the values that it conveys, the actual and potential target audience and elements of usability of the app itself. Focusing on the values, many of the participants remarked that values were the main driver behind the use of this service, and that values should be reinforced in order to nourish the potential target. The core idea of sustainability, fair trade and a commitment with the good labour conditions of the riders was emphasized.

“...convince people to use the Platform for values. This is what differentiates it from other platforms. It is the value of the brand” (Operator user - restaurant)

“La Pájara works with real contracted workers and not with false freelancers. The focus should be on the values of the project. She and many people are attracted to this element of fair trade and solidarity. (Policy maker)

“But it is possible to achieve a well-known service, at the Glovo level, and for many people to recognize your brand, but also to be recognized for the values” (End-user)

Nevertheless, the operators and developers behind the project clearly stated that the path of growth hinges on the consumer choosing La Pájara because of the quality of their service and the food offered and finding the social responsibility values later on. This means “normalizing” the service so it has chances against other firms outside the social economy. Focusing too much on the communication of sustainable values could limit the service to a niche of already aware young population.

“It does not have to be seen as an alternative oriented to an activist segment. We must transcend this. The idea is to do things in a normal way, and having good working conditions should be treated as normal, not as a differential”. (Developer)

“From the project, they think that the focus of the “success” of the project should not be focused there, but rather that the user chooses it because it is “better”, it gives them a more efficient, personalized service with a better user experience”. (Service operator)

“I would like CoopCycle users to arrive without knowing that we are ethical and tell them only later, once they have learned the goodness of the service”. (Developer)



“The first thing that the consumer of a service values is that it works (“I want my hamburger”) and only if this is guaranteed (and with a price that he can assume), then he reinforces his choice and becomes loyal for everything he has behind” (Developer)

Another argument that appeared in the course of this open debate is that the focus on the ethical approach of the firm, mainly towards its workers, should not undermine that the project aims at building knowledge and capacities to turn La Pájara into a more inclusive and accessible digital service and provide inputs for further developments of other apps. Therefore, La Pájara should expand its users base by addressing requirements of vulnerable-to-exclusion population that are not currently covered by other apps. This could be the differential feature of the platform that drives renewed attention.

“We should concentrate on the vulnerable population (reduced mobility, affected by COVID-19, in unwanted isolation) to make a difference, to offer what others do not offer”. (Researcher 3)

“But when we talk about a potential mass of clients, we must remember that the focus must be on the vulnerable population and understand that it is a critical mass with specific attributes. There is no other platform (Glovo, etc) that works with this perspective”. (Researcher 1)

This last point implies the recognition of a limitation that currently La Pájara has: a very homogenous base of users, characterized by their young age, connected, high level of education, digital natives and social and environmental aware population. There exists a potential on increasing the base of users to new profiles, whose needs have not been so far covered. In the same line, the Operator believes that is the human treatment and the possibility of having direct contact what allows more flexibility for special requests. It contributes to the flexibility of the service to include a diversity of population. Here it is expressed:

“Personal and humane treatment” between client and service provider: special attention in the event of the first order, special requests given in the order phase that are communicated to the rider (for example, “call the mobile phone instead of the telephone that the child has that sleeps”), etc (Service operator)

Contrasts and differentiation from commercial apps (Glovo, Deliveroo etc)

Another topic raised during the debates is how to create a model and identity that differentiates from the ones of commercial apps but hold the potential to compete with them and attract part of the public. In the first place, there is a clear consciousness that La Pájara should make its own path, away from the business models of large food delivery actors. Targeting general public or a profile of users close to the one of the big commercial apps may involve additional problems for the operation:

“You do not want to target the average user of a delivery service, because that could bring new problems. If the food arrives slightly colder, you will want to pay it back, you

will want your money back, etc. So, increasing critical mass is important but it is not everything". (Service operator)

"Glovo and others grew as start-ups, very fast, with a lot of investment, with anti-competitive practices. We do not want to follow the same path; we want to make another journey. We want to be sustainable from the start. We don't want to compare ourselves to Glovo or Deliveroo". (Developer)

As it appears during the debate, it is impossible to avoid the comparison with the commercial apps because they all move in the same scenario of operation, although with different models and values.

"Here the question is how to communicate the values. What is the difference with Glovo, Uber Eats, Deliveroo, etc? How to prioritize the different topics covered?" (Researcher 3)

At the same time, the possibility of generating loyalty and attracting new users with specific needs and a longing for closeness and human treatment remains as an opportunity:

"She recommends La Pájara because it is a cooperative, because she believes in them. Many people use again, remain faithful, and leave Glovo". (Operator user - restaurant)

About interface adaptations

The type of adaptations and how to implement them was also raised during the debates. The developer present in the discussion emphasized the need of time, testing and resources to implement novelties associated with the findings during the fieldwork. According to this view, changes in the interface require time because it is important to understand how they coordinate with previous items present in the app. Besides, any modification should be previously treated and discussed with many partners and actors involved:

"The design issues of the platform are very complicated, very long and very expensive developments. It is not just the design, then there is the implementation and testing with various testing techniques". (Developer)

There is a realization that attaining inclusivity in the digital realm takes effort. And not all demands coming from users are equally feasible or desirable. But that the whole project implies a path of search, testing, developing and implementation.

"Dealing with the complexity of the task of new developments and achieving more digitally inclusive applications is the objective of the entire INDIMO project with which it is planned to work on new developments, test them and implement them. This is an opportunity". (Researcher)

A full comprehension of the concept of universal design appears in the course of the debate. Participants understand and suggest that it goes beyond the idea of adjustment for special needs and it rather aims at the design for a wide array of needs and conditions. This can be clearly seen in this last statement:

“What is good for people with disabilities or vulnerability (starting with the elderly who represent the first level of vulnerability) is good for the entire population” (Service operator).

It was also discussed the way that existing regulation and frameworks, although born for different contexts and purposes, could be of use for future arrangements and developments. A stakeholder points out at the issue of regulation that are elaborated and worked on and ends up with low compliance.

“There is already legislation and regulations that regulate the design of these applications... and what happens is that it is simply not fulfilled. In this area is the standard “UNE-EN 301549: 2019 - ACCESSIBILITY REQUIREMENTS FOR ICT PRODUCTS AND SERVICES” (User representative)

Current limitations

At the moment of examining the current limitations of the app in terms of ease of navigation and usability, many of the topics that were mentioned related to concerns on general use, widespread situations that could be particularly more sensitive for vulnerable populations. The recognition of the La Pájara identity and the leap between this brand and Coopcycle (already mentioned during the SSI) was also referred to here:

“Users do not easily find the app to download it by the name that is not recognized if it is La Pájara or it is CoopCycle” (Operator user)

“It is not recognized if it is La Pájara or it is CoopCycle” (User representative -UX specialist)

Some people voice doubts about the fact that the app is too concentrated on food delivery and not in a more general service of courier, from which it could benefit from covering additional services. As it appeared during the semi-structured interviews, courier could be in times of COVID lockdowns, but also for isolated people or people with reduced mobility in general, a good opportunity to allow exchange and contacts with relatives and close acquaintances:

“Interesting a parcel service (for exchange between them) or purchase in stores of special products that they no longer find in the neighborhood and that could save them travel” (User representative)

Concerns and exposed limitations also arise with regards to the scope of geographical coverage and the path of growth of a cooperative of the said characteristics. But the idea

of proximity and small scale could be turned into a strength of the brand, as it is expressed here:

“La Pájara, like all the cooperatives created by the riders, are a very local reality (and this is also an element of strength and that adds value to the service)” (Service operator)

“The growth of the service is, and will be, organic, adding circles of radius 3 km to each restaurant that is added to the network, but it must overlap the area already covered” (Service operator)

It is emphasized the idea of organic growth and the inclusion of new profiles of users, mainly those profiles including vulnerable-to-exclusion that are not currently well addressed by other projects, even when they could find in food delivery a facilitator of their everyday activities. Some people during the debates also suggested micro-training for riders, in order to tackle with more tools, the approach to people with certain vulnerabilities and needs.

3.4.3 SWOT analysis

The SWOT analysis (strengths, weaknesses, opportunities and threats) is a strategic tool to study the situation of an organization or project, analysing its internal characteristics (strengths and weaknesses) and its external characteristics (threats and opportunities) in a squared matrix. The first step to build the SWOT analysis of an inclusive app of food delivery was the collective identification of possible values and assets:

Table 6. Shared identification of possible values and assets of La Pájara/CoopCycle

Possible values	Possible assets
<ul style="list-style-type: none"> • Fair labour conditions • Ethical and transparent alternative • Local and proximity suppliers • Healthy project and healthy food • Local community project • Social and cooperative economy environment • Use of free and replicable platforms (open technology) • Sensitivity towards vulnerable users • Urban transformation through the new cycle-logistics 	<ul style="list-style-type: none"> • Alliances with innovative projects • Custom-made and scheduled orders • Loyalty, customer service and personal rider-customer treatment • Advice on cycle-logistics • Competitive and fair prices • Ease of use and user experience • Cooperative, pioneering and innovative project • Alliances with the European bicycle messaging network • 100% bicycle distribution (0 emissions)

The SWOT analysis performed after 3 sessions of the CoPs delivered the following result summarized in this table:

Table 7. Shared SWOT analysis made for La Pájara/CoopCycle

SWOT	Weak points	Strong points
Internal source	WEAKNESSES <ul style="list-style-type: none"> • Need for digital care proposed by policymaker: the "augmentative codes" • Users do not easily find the app to download it by the name. It is not recognized, whether it is La Pájara or it is CoopCycle • Platforms perceived as being for a higher social class. So, there is a perception of it being expensive and not fitting into daily habits • Location of the Coop of riders • Location of restaurants • Digital approach 	STRENGTHS <ul style="list-style-type: none"> • The personal treatment you can have by the riders • Taking care of food, people and the planet • Alliances that are activated with neighbourhood or social networks • Financing tools for vulnerable users. • Micro-training for riders, about caring • Good network of restaurants, local products, fair working conditions • Symbolic meaning of ordering prepared food
External source	THREATS <ul style="list-style-type: none"> • "I want my hamburger" at a price I can afford. That may be before the values of justice, ecology, proximity consumption for many users. Need to overcome the price barrier. • Aspiring at offering functionalities that cannot be offered with high levels of service • Symbolic meaning of ordering prepared food (associated to fast food chains?) 	OPPORTUNITIES <ul style="list-style-type: none"> • Improve user design according to the inputs and resources of INDIMO: take advantage of dealing with the complexity of new developments, test them and implement them. • Ability to outline a service attentive to the needs of the user, even the most vulnerable • Being good at the proposed functionalities, focusing on a few that are well cared for and without limitations or defects. • Take inspiration from the good solutions: functions to increase font size, activate audio etc. • The additional parcel service is available with La Pájara but it is not easily evident on the CoopCycle platform

3.4.4 CoP as tool for fieldwork deployment

The CoP offers a unique opportunity to collect data from a wide range of stakeholders that could reinforce or backup the fieldwork deployment. The CoP offers the possibility of gathering data, providing input of aspects to be tested, in a very close, direct and flexible way. In the case of the CoP of Madrid, in the session #4, before the release of the Madrid pilot baseline survey (task 4.2), the participants of the CoP were read the baseline questionnaire to ensure consistency along the questions, coherence and ease of comprehension. CoP participants were requested feedback about the questionnaire. They had the opportunity to provide insights on the simplicity and understandability of the language used, about the emphasis on certain types of impairment, about the inclusivity of language and about the topics covered by the tool of data collection.

In session #5 it was requested feedback on the functionalities of the La Pájara/CoopCycle app on the phase of the upcoming Phase 1 of pilot, to understand the elements that could be improved or rebuilt. The main ideas from the collected responses were the following:

1. When entering the web / application include the direct entry of the address from which it is requested, to evaluate if the tool is valid for said user or not (and notice similar to "soon we will be able to assist you in your area" or similar).
2. Explain the schedules and causes when orders cannot be made, due to how late it is (night riders), maintenance tasks (CoopCycle), weather (rain, snow, pollution), vacations or breaks, etc ...
3. In the same way, it would be advisable to notify when placing the order if there is a restaurant / supplier not operating (closed, on vacation, with difficulties ...) so that the order is not made and later it has to be cancelled, but rather preventively it cannot be ordered at that location.
4. Harmonize as far as possible the operation and functionalities of the platform in its web and mobile app version. It seems that the latter is somewhat more behind than the former.
5. Resolve the possible confusion La Pájara-CoopCycle ("powered by CoopCycle?").
6. The app is not easy to find for download (CoopCycle-La Pájara?).
7. Inclusion of augmentative and alternative codes to improve inclusion and accessibility, functions to increase the font size, audio activation.
8. The UNE-EN 301549 regulation must be complied with. Accessibility requirements for Information and Communication Technology (ICT) products and services applicable to public procurement in Europe.

Finally, as last stage of the dynamic of the CoP as instrument for fieldwork deployment, in the session #7, the rating of user's requirement (which is detailed in the following section) was accompanied by the implementation of a questionnaire corresponding to task 3.3. It was a quick survey regarding complementary needs and requirements. In this exercise, through a Google Form document, participants were asked to assign a level of relevance

from 1 to 4 to different aspects and characteristics of a digital service, its physical and digital interface, the people behind the service and other related features.

3.4.5 Rating users' requirements

This activity consisted of gathering the input of the CoPs participants with regards to the main requirements from users and non-users that were extracted from the analysis of the previous stage of SSI led by cambiaMO as part of Task 1.3. These inputs were gathered for the five distinct pilots. So, the profile characteristics of the Madrid pilot were explained to the CoP participants and there was a brief explanation of each requirement. Through an online, simultaneous, short and personal survey loaded on Google Form CoP participants had the opportunity of rating the requirements according to their level of priority, being 3 a high level of priority, 2 an intermediate level and 1 a low level of priority (see Table 1 at page 21). Later on, and based on the results of the personal survey a consensus was reached among all the members and through debate, establishing a final common level of priority reached through agreement. This exercise was repeated for the requirements emerging from the Persona construction led by IMEC-VUB as part of Task 1.2. The table with the complete list of requirements for the pilot is included in the D2.1 Universal Design Manual.

Besides the proposed quantitative rating, after the poll, the participants had the opportunity to voice some of the comments and opinions they have over the shown requirements. The CoP praised the presence of a physical person to provide with assistance for the above-mentioned problems, although this should be pondered by the operator. This assistance does not need to be permanent 24 hours, but can be led through a chat. There was a consensus about the importance of the progression bar to provide orientation on the advancement of the order. It is unavoidable that the information is structured in a way that is easy to read, considering the input of people with mental disabilities and the insights of the related stakeholders. This goes along with an interface of easy steps. It is not only about the interface, the CoP participants agreed that prices of the products are affordable and transparent. But regarding the communication campaign to promote the service, there is no consensus on its importance, since the main aspect is that the service is good and trustworthy.

Also, from the requirement selection and prioritization model, participants questioned the fact that it mixes up aspects of the business model with aspects of the operation, such as the case of including requirements about prices together with requirements about digital interface. They also find that the idea of empowering parcel courier and not only food delivery, as suggested in one of the requirements, might generate confusion among the customers.

3.4.6 Assessment of Icon Language in the CoP

This consisted of an interactive exercise that involved a work of interpretation, visual analysis and debate among all the members of the CoP. All the participants were shown,

first, icons that are typically part of the iconic language of most of the mobile apps; and secondly, screenshots that are from actual interface of the app La Pájara/Coopcycle. With these scenarios in front of their sight, participants were asked their inputs about: a) the meaning of the icons; b) other icons that could be used to convey the same meaning; c) elements that were unclear or produced confusion in the visual outlook; c) elements that could be added for clarification or a more accurate communication; d) other elements that should be born in mind at the time of designing a graphic interface.

It was an oral exchange of insights, with debate and exchanges, close to a brainstorming of interpretations and ideas among the following participants: UR, user representative - EU, end-user - PM, policy maker - OU, operator user (restaurant) – OP, service operator - DEV, developer.

The detailed outcome of the assessment exercise of the screens and icons is presented in the Deliverable 2.3 corresponding to the Universal Icons Language.

3.4.7 Appropriation exercise

Similar to other pilots, in Madrid the CoP was also a space to generate a feedback and interaction with the fieldwork. It was thought as a space for the collection of information about users and no-users' experiences. Working in the same way than other pilots, there was a debate with reduced groups and a synthesis in a plenary scenario. The main results of the exercise are the inclusion of these tools as accepted and normal parts of the everyday life as long as they are not invasive. Social norms and environmental awareness play a key role in the appropriation of apps. Further detail is examined in the Deliverable 2.5 on Appropriation of digital mobility solutions.

3.5 Pilot 5: On-demand ride-sharing integrated into multimodal route planning - Berlin

The CoP in Berlin will focus on the assigned roles of women as caregivers, the experience of women with children in the public space and in the transport, the existence of services that take into account women's concerns. Exercises that generate confident relations among women, empowering them and fostering sharing of experiences through sympathy, are highly appreciated.

The INDIMO partners involved in this pilot are Door-to-Door and EPF.

3.5.1 Key activities developed during each session

A description of the main activities carried out at the Berlin pilot is provided in Table 8.

Table 8. Key activities developed during each session at Pilot 5

Session number and date	Key activities
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Session #1 November 24th, 2020	<ul style="list-style-type: none"> • Introduction to the community • Presentation of INDIMO project, the CoP and the local approach. • Discussion: engagement of stakeholders
Session #2 February 6th, 2021	<ul style="list-style-type: none"> • Summary of the INDIMO Project • Analysis of the results of the SSI of the WP1
Session #3 March 26th, 2021	<ul style="list-style-type: none"> • Participants' interpretation of icons language found in similar digital apps • Participants' interpretation and debate about icons language of an app related to the pilot.
Session #4 April 23rd	<ul style="list-style-type: none"> • Rating and validation of user's requirements
Session #5 May 28th	<ul style="list-style-type: none"> • Appropriation exercise by participants

3.5.2 Main topics that arose during the open debate stage

The CoP was presented and participants were asked about their interests and how could they be integrated in these discussions. There were doubts among participants about the project, whether it is about the development of an app or local service strategy. The participants introduce themselves and tell what their potential contribution to the pilot are. These are the main points that were highlighted of the debate. There arises a special concern about the mobility of non-digital groups and target group of women with children. According to one participant, Berlkönig offered a ridepooling service in a different peri-urban area, offered telephone booking and very cheap rides, still the service is failing. Mobility change does not only mean leaving the private car, but also mobility as a social need for all, being able to offer services people actually need. It is mentioned the importance of the understanding of the perspective of the needs of women and caretakers, especially because at transport organizations they have very little presence of women in their discussions. Finally, there were final remarks and a close-up to follow the opened topics in the next meeting.

3.5.3 Debate over the results of the interviews of WP1

The methodology of the fieldwork of the WP1 was presented, along with the different actions taking later. It was commented how the testimonies of the interviewees were



collected, organised and used during the analysis to arrive at the conclusions. The main aspects that emerged were the following:

The most important thing for caring about the target population is to ask the right questions to the user. How many children will the adult accompany? How old are they? Do they need a special seat? Is extra space to transport equipment required? The app should provide the right information about availability of trips and vehicles, time of pick up (and consider flexibility for a mother's needs) and place of pick up (caring for the special concerns on security of women in the public space at different moments of the day). It was recognized that one of the main problem is that the options to enter child information is scarce in existing apps. Those apps that try to customize certain functionalities are still behind in caring for women's needs.

3.5.4 Rating users' requirements

This activity consisted of gathering the input of the CoPs participants with regards to the main requirements from users and non-users that were extracted from the analysis of the previous stage of SSI led by cambiaMO as part of Task 1.3. These inputs were gathered for the five distinct pilots. So, the profile characteristics of the Berlin pilot were explained to the CoP participants and there was a brief explanation of each requirement. Through a simultaneous presentation and discussion about the P5 requirements, participants had the opportunity of rating the requirements according to their level of priority, being 3 a high level of priority, 2 an intermediate level and 1 a low level of priority (see Table 1 at page 21). Later on, based on the results of the personal survey a consensus was reached among all the members and through debate, establishing a final common level of priority reached through agreement. This exercise was repeated for the requirements emerging from the Persona construction led by IMEC-VUB as part of Task 1.2. The table with the complete list of requirements for the pilot can be found in the Deliverable 2.1 Universal Design Manual.

3.5.5 Assessment of Icon Language in the CoP

Like previous pilots, this step consisted of an interactive exercise that involved a work of interpretation, visual analysis, and debate among all the members of the CoP. All the participants were shown, first, icons that are typically part of the iconic language of most mobile apps; and secondly, screenshots from the actual app interface of the pilot.. With these scenarios in front of their sight, participants were asked their inputs about: a) the meaning of the icons; b) other icons that could be used to convey the same meaning; c) elements that were unclear or produced confusion in the visual outlook; d) elements that could be added for clarification or a more accurate communication; e) other elements that should be borne in mind at the time of designing a graphic interface.

To look at the outcome of these exercises, the figures that were presented during the CoP will also be presented in this report. The detailed assessment of the screens and icons is presented in the Deliverable 2.3 corresponding to the Universal Icons Language.

3.5.6 Appropriation exercise

There are interesting learnings in the CoP when focusing the attention in the Pros and Cons of downloading an additional app, as commented by the participants of the meeting. The search for usefulness, the integration in the daily life and the idea that general apps instead of specialized are more useful and simple are key insights of this experience. Further detail on the appropriation exercise is found in the Deliverable 2.5 on Appropriation of mobility solutions.

4 Lessons learnt

Throughout this deliverable we examined the results of an extensive process carried out at each pilot.

Conducting the co-creation work implied a good number of challenges and obstacles that had to be overcome, especially when we have the aspiration to build-up a local Community of practice within stakeholders and researchers who have not experience with this kind of knowledge consolidation tool. First of all, cambiaMO team in cooperation with the WP3 and INDIMO project leaders had to prepare both bilateral (each 15 days virtual meetings) and collective training sessions with pilots' leaders for starting the meetings of the CoP (i.e. Meta-Cops). After it, today all the CoPs are on track and they have co-created and contributed with valuable inputs for the general INDIMO project (i.e. sharing the pilots' objectives) within local stakeholders and target-groups users, prioritizing the requirements to make digital mobility and delivery services inclusive, selecting the appropriate icons at this scope and go deeply on the appropriation digital tools for carrying out daily-live activities of INDIMO target-groups. This also meant a great personal and professional satisfaction for us, the researchers who greatly trust on going out from the comfort zone of the expertise approach and jump in the multi-perspective empowering common knowledge. We were welcomed with gratitude by all the participants, users, non-users, people working on institutions; after one year and half of the hard work specially by the pilots' leaders, they felt and expressed that the research team was working for them, to improve their conditions of accessibility and inclusion. The conversations were focused on the problems and participants were eager to contribute and to find common solutions to common problems. This feeling arose from the Community of Practices where all the practitioners were enthusiastic about their participation and have a certainty about the need for spaces to talk about these issues. They were executive and practical and had a great awareness of what was at stake. The future approaches us at high speed and the community have to face challenges regarding many social practices.

The potential of apps as a way of reducing barriers for target-groups does not imply that there is a current practice shaped by this trend. Therefore, it was not easy to recruit end-users target-groups that at the same time were users of the app (let alone frequent users of the app). When finding a low-income person who was at the same time a user of the app, not always s/he was coupling the rest of the characteristics.

The overlapping of users and people with reduced vision was another challenge because of the singularity of the search related to a product with a low penetration in the general population, and the additional fact that people with reduced vision are reluctant to screens.

At the time of conducting the CoP that for COVID19 reasons had to be carried-out in a digital platform, some participants have a very low familiarity with any type of digital tool and in some case for older people was the first time to do a teleconference. The great

availability of the local pilot leader was the key for guaranteeing the success of CoPs meetings. This is a clear example of empowering target-group achievement that make the CoP unique in the domain of the co-creation tool. As a result, the CoPs had resources for hypothesis, conjectures, and possible scenarios for participants to talk about their beliefs and feelings about technology and mobility and delivery services. With regards to users, sometimes they talked freely about their concerns and interests on general digital services, or general characteristics of technology in services. Thus, the facilitator should drive them back into the focus on the CoP aims.

There is a general feeling of having consolidated local CoPs in a good way. The great number of verbatims and contents produced for the rest of INDIMO tools (i.e. Universal Design Manual and the Universal Icons languages catalogue) and captured in this deliverable anticipates a high level of inputs for clear guidelines for the INDIMO Digital Mobility toolbox. The recursive appearance of beliefs, motivations and feelings shared by several participants make us think that there are social representations and images about digital mobility and delivery services that should be considered at the time of designing technology for including end-users target-groups. A final comment could be done: the entire deliverable is a lesson learnt!



5 New insights and conclusions

The conversations of the Community of Practices were focused on the problems and participants were eager to contribute and to find common solutions to common problems and have a certainty about the need for spaces to talk about these issues. They were executive and practical and had a great awareness of what was at stake. The future approaches us at high speed and the community will have to face challenges regarding new social practices within the acceptance and usability of digital mobility services and digital delivery services.

Some key insights from the local CoPs and the META CoP include:

1. There is a need of training facilitators when a research project would implement the Communities of Practices. This training is indispensable for organizing the CoPs. The profile of a facilitator of INDIMO CoPs need some technical notions of Digital Mobility and Delivery services, but more than ever a facilitator skill. After one year and half we achieved that local CoPs are co-facilitated by one local person and one experienced facilitator from cambiaMO. We are confident that all CoPs will be facilitated by local facilitator by the second half of the INDIMO project.
2. The COVID 19 pandemic time impose to directly adopt the virtual space for running the INDIMO CoPs. This aspect was a real challenge for involving our users' target-groups who are per se quite digitally low skilled. However, the patience and the availability of local CoP facilitators made those things happened even in challenging conditions as in Emilia-Romagna. cambiaMO team supported by VIC and DBL had to reinvent the facilitating work in a digital space.
3. The digital space determines to make the digital session more dynamic and convert them as well in a more pleasant space where people would stay and have a good moment to share their experiences, knowledge. But this space needs to be of quality and effective. The usual timeframe of 1,5 hour consolidated for a face-to face CoP needed to be adapted to the digital world and reduced to one hour. This adaptation has contributed to make in love participants of the CoPs. Most of participants love stay there and remit each other once a month or month and half. INDIMO CoPs achieved the most difficult goal of a CoP: How to make people in love of the CoP. Congratulations to all CoPs and META CoPs teams.
4. Mutual support plays a key role in this INDIMO CoPs love story and from cambiaMO team we really appreciated both the local CoPs leaders availability in following our coordination even when they were not totally convinced, and the top trust of ZLC and VUB in stay there with huge support.
5. After this first half of the INDIMO project we could affirm to have achieved the creation of a stable co-creation space where people are confident to share and have the feeling to be empowered to contribute to digital mobility inclusiveness.
6. The effectiveness of the CoPs in producing knowledge and empowering is clear when we read D2.1, D2.3, D2.5, and D3.3. We are confident to maintain them during next year and half.



7. The CoPs have achieved the double goal of creating content in a huge diversity of treated themes for INDIMO project and at the same time finding key stakeholders, including users and non-users and empowering them in a confident space, policy-makers, developers, UI-UX designers.
8. A closer participation and learning by doing techniques have been developed: cambiaMO facilitators participated in all CoPs of all Pilots and facilitated them even in local languages when it was required specially when key inputs were expected such as it was the case for the requirements prioritization, UIL icons inclusiveness check, and the appropriation exercise. Additionally, CoPs generate an empowering feeling among citizens that they are being offered the role of becoming a stakeholder in creation of solutions to address their needs.

Acknowledgement

In this section we want to reaffirm the importance of the commitment and involvement of all the participants in the CoPs. Their insights were extremely worthy for the creation of knowledge. This analysis was possible through the valuable discussions with policymakers, representatives of local authorities, associations of residents and neighbors, civil society organizations, UI/UX specialists, topic specialists, operators of mobility and logistic services, users and non-user of all the different pilots, participating in the meetings to discuss and disseminate this accessible and inclusive approach. Thanks to committed citizens such as Marta, Nuria, Pedro and Valentina, Martina, Max, Peter, Frida, Silvana, Rafa who made this experience possible.

List of acronyms

Acronym	Meaning
CoP	Community of Practice
DDS	Digital delivery services
DMS	Digital mobility services
SSI	Semi- structured interviews
UDM	Universal Design Manual
UIL	Universal Interface Language icons
WP	Work package
EU	European Union
NGO	Non-Governmental Organization
ICT	Information and Communications Technology

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Annex 1. Agenda template

INDIMO Online meeting

DATE:

Meeting organiser: [Organization]

Type of meeting: 1st [Pilot] Community of Practice

Note taker: [Name Surname]

Agenda- [Date]

TIME: [Start-end hours]

Item No	Timing	Topic
1		
2		
3		
4		
5		
6		

Annex 2. Minutes template

Type of meeting: CoP [Title]

Organization:

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Date:

	Time :		Place e:	
--	------------------	--	--------------------	--

PARTICIPANTS		
#	Name	Organization
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attendance excused:

Agenda- Points been discussed	
1	
2	
3	
4	
5	
6	

Content development of the meeting

Conclusions-agreements-new tasks

Task	Responsible	Deadlines	Observations
Next session organization	Name surname	Date Start-End time	Subject:



In [place], [date]

Signature- _____

Annex 3. Ethical reflections

Research in INDIMO project, especially fieldwork deals with various target-groups vulnerable to exclusion people. Therefore, necessary ethical considerations have been taken into account. Following principles will be adopted during the research for minimizing the chance causing harm and discomfort while carrying out fieldwork such as CoP.

INDIMO project will work with migrants and ethnic minorities. Therefore, we will take into account and apply principles such as:

1. treat them with care and sensitivity
2. be objective and transparent
3. avoid ethnocentricity: show respect for their ethnicity, language, religion, gender and sexual orientation
4. rigorously safeguard the dignity, wellbeing, autonomy, safety and security of their family & friends
5. respect their values and right to make their own decisions whenever the research involves such participants

All the above-mentioned principles have been set out following the EC guidance document on research on refugees, asylum seekers & migrants (https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/guide_research-refugees-migrants_en.pdf)

Similar principles will be followed for impaired people with disabilities by considering the ethical guidance for research with people with disabilities by national disability authority (<http://nda.ie/nda-files/Ethical-Guidance-for-Research-with-People-with-Disabilities.pdf>)

This document (page 19 onwards) has a set of values aligned with respect for the dignity, autonomy, equality and diversity of all those involved in the research process.

Inspired by these guidelines in our project with regard to the cases where people with mobility impairments are involved, we will:

1. Respect their autonomy avoiding to do tasks for them
2. Conducting research in settings that are accessible and safe
3. Ensure appropriate disability awareness training for researchers
4. Avoid bending or squatting while speaking with people in wheelchairs

While for people with visual impairments we follow aforementioned principles (as and when applicable) and add some additional ones such as:

1. Conducting research in settings that are accessible and safe (for example giving audio or touch signals to replace visual messages)
2. Speaking first before approaching or touching people with visual impairments
3. Ensuring to express visual cues in an audio format (for example, saying you are entering or leaving the room; explaining pictures or videos that you might use in presentations, etc.)
4. In a group conversation, always make it clear who you are and who you are speaking to.
5. Use verbal responses, avoid nods and head shakes.

For both target groups of mobility and visual impaired people: if they are accompanied by someone else, always speak first to the person themselves then to the caregiver; explain confidentiality in a clear way (adequate to each individual and their personal (dis)abilities), Avoid coercion or undue pressure to participate and safeguard wellbeing, acknowledge the possibility of responders' burden and allow for frequent breaks when needed.

One indicated target group for INDIMO project includes women. A strong gender approach will be adopted and conducts to:

1. Avoid sexism and genderism: respect their gender and sexual orientation; avoid overgeneralizations. Respect their views on gender and gender roles (might be helpful to not tell someone that they are being sexist, normally it doesn't work very well).
2. Respect their values, religion and choices
3. Acknowledge that some moments on the research might bring up traumatic experiences: always give them the opportunity to take their time, to skip questions or parts of the research or even to stop participating in the research completely.
4. If questions or experiences are too difficult and cause anxiety or stress, allow the possibility of a companion (friend, partner, family member) to join the person participating in the research.

In addition to these ethical reflections it is worth to noting that the research activities of INDIMO aligns with the principles of the European Convention of Human Rights, the rules of the Convention of the Council of Europe for the protection of individuals with regards to automatic processing of personal data and especially the European Directive 95/46/EC. In case personal data are transferred from the EU to a non-EU country or international organization, confirmation that such transfers are in accordance with Chapter V of the General Data Protection Regulation 2016/679, must be included in the corresponding deliverables.

Nothing in this project shall be deemed to require a party to breach any mandatory statutory law under which the party is operating, including any national or European regulations, rules and norms regarding ethics in conducting research. The INDIMO project, as a participant in H2020, confirms that the proposed research and consortium participants (which consists of many experts with experiences in research with vulnerable to exclusion people) fully comply with the principles of the European Charter for Researchers and the European Code of Conduct for Research Integrity of ALLEA (All European Academics) and ESF (European Science Foundation).

All project participants are expected to act in accordance with the ethical guidelines and principles. All sensitive/confidential data used by the project will be identified as needed during the Ethical Scrutiny carried out by the EC in the evaluation phase.

Annex 4. The detailed guidelines for organizing, facilitating and using the common knowledge of CoP

Why, What, Who, Which, When

Before running the meetings of the CoP, there should be a good number of definitions with regards to the desired practice. Here's a list of the points that need to be defined in order to shape the CoP accordingly. A clear way of doing this setup is to answer the different “*WH*” questions, in the following way:

Why: the purpose of the community has to be very clear. It has to be possible to state it in a phrase, answering why. For example, “Why? In order to share experiences from a field of practices...”. In the case of INDIMO CoPs, the framework to establish a Why is suggested as follows:

P1: to work on improving the quality of life of elderly people and migrants living in low-level economic conditions in rural areas by facilitating e-commerce and reducing “unwanted isolation”.

P2: to create a platform of more inclusive traffic lights by understanding and sympathizing with the experience of elderly or impaired with disabilities.

P3: to upgrade a ride-sharing platform, with focus on Arab women, for reducing transport poverty in isolated villages, deriving learning from users', developers and policy makers experience.

P4: to explore existing barriers to the use of digital food delivery services by vulnerable populations, considering issues of digital accessibility, perception of security (with regards to privacy and handling of personal information and in the interaction with the delivery person) and the specific situation of the pandemics.

P5: to increase access and provide individual mobility for caregiver women with the improvement of digital solutions.

What: the key idea is defining the type of community we will build up. There are different types of CoPs which coincide with different purposes. Among the different types, we can have: 1) supporting communities, whose goal is to contribute solving the every day's problems and difficulties that practitioners find in the field; 2) Good practices: their purpose is to identify and share good practices related to the practitioner's activity; 3) Knowledge management; in some areas where there is a great amount of information produced, this type of CoP has the goal of sharing how accessing the information, how

storing it or making it available in a tidier way. In the case of INDIMO CoPs, the type could switch between Supporting communities and Good practices commuting. Those that mainly aim at discussing every day's problems and try to figure out a solution behave as a Supporting community. Those that mainly focus on discussing how to make actual practices more efficient or effective behave as a Good practices community.

Who: the question aims at defining who are expected to participate in the CoP activities. Who are the people that can make the most of them? Who are those that can contribute the most to their realization? It is the time for profiling the expected participants. This implies:

a) Selecting the profiles based on experience, interest and the level of commitment they are willing to give. All the items that build a profile should be defined with clear parameters that may take the shape of quantitative parameters. For example, experience (experience in the field of cognitive accessibility), interest (interested in topics of mobility), commitment willing to give (possibility of hours devoted to sessions and post-sessions tasks).

An interesting thing to consider: it is not only a matter of selecting the right profiles, but to have a combination of profiles that is valuable as a group. As Sociology teaches us, a group is more than the addition of individuals, it is something different. The combination of a wide variety of profiles renders a “plus”, which is not attained by individual strengths.

b) A second point to consider is to establish a transparent selection of approval process. The candidates to join in must have a deadline for the application or to present the requested info. Then they should have the opportunity of receiving some feedback on whether they were selected or not.

c) Even when there is no need to assign beforehand formal roles to each of the participants (as it is understood, learning from the Social Psychology discipline, that roles are spontaneously taken by participants in the course of group dynamics), the organizers may anticipate the contributions that each can make to the collective. Some of them might be good advising, some other accompanying, or encouraging others to communicate in an emotional way, or helping others in practical matters. In the end, the group generates a feeling of co-responsibility where everybody fits in from a different profile and approach. But when referring to CoP, we tend to emphasize that it is a space of multiple leaders and multiple roles.

In the case of INDIMO CoPs the different participants are users, non-users, developers, policy makers, NGO and end users' associations, in connection to each project.

Which: which are the contents? The topic domain of the CoPs has to be precisely defined. For example, if the CoP is about encouraging good practices among informal urban recyclers which gather in coops to sell what they pick from the streets, the domain is urban environmental micro-actions and social economy. But the domain should not only be

defined with accuracy, it also has to be presented in a way that encourages people to take part. To present the domain, and elaborate a bit about it, it is always useful to take into account the triangle of relevance (personal relevance, to the sector, to the world/ future generations). Another thing that will reinforce the value of the CoP is their clear link with the everyday practice of the organizations involved.

For example, if we analyse the triangle of the Pilot 1 (Emilia Romagna | Digital Lockers), personal relevance originates from the difficulties experienced as a user, or as friends/relatives/acquaintances of vulnerable users, or as professionals offering a valuable service for vulnerable users. To the sector, these meetings offer rich information for planning and decision making from the user's inputs. To the world/future generations, in a world that is increasingly urban, providing services and infrastructure tailored to the needs of rural areas is a growing challenge. This can help to imagine a rural habitability that is not linked to isolation and marginality.

When: before starting with meetings, a schedule should be built with the following sessions, their frequency and the length of each. The different tasks that participants will have to complete in between meetings (if any) should also be added. The creation of a schedule can be a way of assigning hours spent on the project and have a clear idea of the level of commitment that is expected from the participants. The time framework which is desired is to keep regular and sustained interactions over time. There should be a continuity in interactions without large gaps, which lead to a disturbance in the learning process. A defined frequency (e.g., the first Tuesday of every month, or of every odd month) helps to give the CoP consistency and to generate fidelity.

Including all the definitions in a Manifesto

Once all the definitions are settled and clear, it is a good idea to state them in a sort of Chart or Manifesto, which will be the conceptual guide of the process. It gives the community a sense of direction. This document can be available to new members and participants who may be interested in joining an existing CoP, and that allows us to update the information and level of experience that the CoP has acquired. This Manifesto can establish the mission and goal of the group, and the products or deliverables (if any) that are the expected outcome of the process.

Stating it in a written and shared document helps to clarify ideas, to give access to those who wish to know it and to be able to benchmark the results against the original expectations.

This document may contain:

- The item of a work plan to be generated by consensus of the group in the first meetings.
- Statements about rotation of roles if some roles are actually assigned.

- Basic arrangements and commitments of participants.
- Definitions on the degree of openness and welcome protocols for new members.
- A definition to incorporate the gender perspective to equalize the involvement of all people, with attention to inclusiveness.

Inputs and outputs

One relevant thing to consider before starting the process is what the inputs (materials going into the scheme) and the outputs (the deliverables) will be. Thinking of the materials implies reviewing all the material aspects that may arise during the meetings. For example, it means thinking of the accessibility and inclusivity of all the elements proposed. Will some participants have physical constraints to carry out this activity? Do all people have in their computers or in their homes the elements to carry out this activity? Will all people connect from a computer or some will do from another type of device? Is the proposed platform fit for any kind of device? So, at this point, organizers cannot give anything for granted. In case any doubts remain about the availability of certain material elements, organizers can contact participants in advance to ask them their possibility of participating in certain activities. Imagine the organizer decides to warm up with the activity of the “personal object”. It is suggested that participants are reminded at least twice (not only once) that they should pick this object. This point can even be reinforced at the beginning of the meeting.

Another very important thing to have in mind are the minutes. During the activity, the topics are treated following an agenda, and any change agreed on the order should be registered in the minutes document. In the same way, after the meeting is over, the main points treated during the summit should be registered in the minutes. This is the dynamic document where we can later on track all the relevant things that happened during the meetings, who suggested an action or who wanted to change a certain procedure or course of events. It is also the document where agreements and new tasks are well established, and where the conclusions are clearly stated.

With regards to the outputs or deliverables, it should be clearly defined whether it is expected that the end of the process implies a production or not. This production can range from a document, a protocol of action, a publication, a platform, a new network for intervention, the arrangement of a physical space, the birth of a lasting social organization. The expected outcomes should be defined, as well as stating at what point of the process they should be delivered. If different deliverables have different people in charge, that should also be planned in advance.

Stages of the CoP: DURING the meetings

The following paragraphs illustrate a suggested agenda for the first meeting of the CoP, which is one of the most important, since the presentation of the topics, the introduction of participants and the agreements of intervention take place. We are going to review this suggested agenda for the first meeting, but reminding the reader that the following meetings should have a dedicated one according to the plan of each pilot. A review of each stage follows.

Welcome to the Community | 5 min

There should be a motivating title which easily attracts the attention of the group (it may have a word pun) and that synthesizes in a compact way the concept of the CoP.

In addition, the moderator should communicate that the CoP will be recorded and should ask participants if any of them does not agree in using images where she or he is included.

This is a pre-informed consent followed by a formal document that will be sent afterwards to each participant.

Tour de table on motivation and expectations of participants about your CoP | 15 min

We perform here a Go-Round (every participant, by turns, has the opportunity to speak) where participants explain their motivation and interests to be there. It has to be very quick, since there should be time left for a warm-up activity.

Warm-up / Ice breaker | 20 min

Once the CoP is introduced, it is the moment for the participants to introduce themselves and to start breaking the ice and building a warm interaction. It is a good moment for games and recreational activities. Here some ideas:

Personal object game.

Everybody chooses a personal object and explains why the object represents them.

Off topic

Everybody has to comment on 1) something new in their lives; 2) something new they recently discovered, with no relation with the topic of the CoP. It is an opportunity for a little bit of self-revealing and connection, while still being fun.

People map

Participants can introduce themselves saying either where they are from or where they have lived. The different locations are placed onto a virtual map.

Using the context

A good introduction, which takes notice of the things going around in the world, is everybody telling a skill they learned or a hobby they took up during the COVID-19 lockdown.

Group arrangement | 5 min

This is the stage to establish, collectively, what the rules of participation will be. The moderator is the one that proposes items that can be discussed and negotiated altogether by the participants.

The idea is to create a safe, healthy and productive environment for work. This implies a space that is free of aggression, offensive remarks, rudeness, sexist or racist comments. It has to be a horizontal space where all the voices are equally valuable and everybody is encouraged to participate.

The dynamic should be interactive and not limited to write things. But the rules should be agreed by everybody. So, the moderator should propose rules considering:

- (a) length of each speech / participation;
- (b) forms of interrupting or making remarks on other's words;
- (c) forms of debating;
- (d) things that are considered rude or aggressive;
- (e) non-verbal signals.

Non-verbal signals are ways of communicating given the importance of the visual aspect in web meetings platforms. For people to catch these signs, everybody should have the Gallery view of all the screens (e.g. Zoom option).

Non-verbal signals should be few (in order to remember them) and agreed at the beginning so they are clear for everyone.

Launch of some key idea, narrative of your CoP | 20 min

For this point, it is important to use a platform that allows to show the presentation, along with the plenary room and the Q&A. And that also enables breakout rooms, in order to work in smaller groups (which encourages participation).

Technical resources

It is suggested to use the INDIMO platform with this route: indimoproject.eu => community of practice => online workshop => plenary room/presentation/Q&A/breakout rooms.

Some other technical resources:

Zoom=>allows to have breakout rooms and control their dynamic. Allows for a Gallery view with screens of the same size.

Mural=> it works as a giant blackboard. Its size is infinite and you may zoom in and zoom out of portions. Users can divide areas, use a good number of icons and allow voting.

Google doc=> it is useful when many participants working on the same document at the same time is needed.

Moderator's role

The moderator should try to limit their speech and to leave room for participants to speak. Facilitators should encourage those who remain silent to give their inputs and present everybody's opinions as valuable.

It has to moderate interventions in a gentle way to make sure that they do not take longer than 2-5 minutes, depending on the stage. The moderator should repeatedly remind participants of the principle of WAIT (Why Am I Talking).

Interactive activities

Since perception is limited, the development of ideas may require to attract the attention of participants with interactive activities. Building in a range of different activities will enable more people to stay involved. Some possible interactive activities are:

Brainstorming

Ask people to call out all their ideas as fast as possible – without censoring them. Another variation is doing the same with rotating stations (breakout groups, each station a topic)

Go-round

Everyone takes a turn to speak on a subject without interruption or comment from other people.

Split in smaller groups

Allow time for everyone to speak and to feel involved efficiently

Roleplay and simulations

Both roleplays and simulations are an opportunity to enact a scenario, practice skills around that scenario, and explore emotional reactions to it. If people are taking on a specific role within the scenario it is a roleplay. If they are exploring a scenario as themselves it is a simulation.

Evaluation of a group dynamic (auto reflexive)

Evaluation gives participants and observers the chance to assimilate and analyse what has happened and how well they put their skills into effect.

Wrap-up | 10 min

A collective summary of the items explored during the different discussions and activities. There are alternatives to the go-round, such as the appreciation circle. In the appreciation circle, everybody in turns says what they are proud of about how the group is moving forward.

Agreement about the day and hour when dating for the next CoP

In dating for the next CoP, try to consider conciliation aspects with one's family and taking into account the needs of all participants.

Closing remarks | 10 min

The moderator gives a final account of their feelings and gratefulness about what's been experienced and let others speak freely about the way they felt and what they have learned.

Nourishing a CoP: AFTER each meeting, preparing the next one

Going through the first meeting implied a path where different things happened and the initial push and thrill of the practitioners may also have experienced ups and downs. The organizers should be open and sympathetic with these energies in order to account for them in the arrangement of the next meeting.

At the same time, the second meeting and the following must have a different maturity than the first one. While the first one was more about trust building and shaping the community, the following imply that practitioners have homework to do and things to meditate on in between meetings. The second session is more about knowledge and the wake of new ideas. With the time, members will acquire the feeling of belonging to the CoP, the relevance of being part.

In order to move forward in the realization of different meetings, one should bear in mind the several stages of development of a CoP, as follows:

Committing

There's always someone or some collective who takes the initiative, decides that getting together is a good thing to do and set out to do it.

Start up

The goals of the CoP are set and framed, practitioners are recruited and roles start to emerge and be negotiated.

Operating

It includes all the activities of sharing knowledge, putting experiences in common, solving problems, building skills and enhancing everyday practice. It is probably the moment of top commitment, when the link and effect on the practitioner's activities is clearly seen.

Winding down

As time goes by and problem-solving takes place and the practice is enhanced, the value of commitment slows down and the worth of the organization starts to decline.

Shutting down

Either because the agenda of meetings was successfully complied with, or because the purpose was tackled across the meetings, the organization can proceed to close the CoP.

It is suggested that practitioners are anticipated that the CoP will come to an end (it shouldn't take anybody by surprise, or be decided from one session to the following) and there is a moment for a closing meditation of what the CoP has left and a moment for gratefulness with all those who participate in it.

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Dynamics to keep the sessions active and oriented

Keeping the process in movement is one of the greatest challenges after finishing the first meeting. So, here are some ideas to keep connected and dynamic the passage between one meeting to the following one.

Taking notes in between the sessions

From one session to the following, practitioners could be asked to keep notes of two elements. The first one is “Experiences of the daily practice that I would like to comment on or bring into the CoP meetings”. The second element they could be asked to track is “Learnings of the CoP that I implemented in the daily practice”. This is a sort of feedback to the group, a dialogue from the daily practice to the CoP and from the CoP to the daily practice.

At the beginning of each of the following sessions practitioners could share their notes with the plenary and discuss the implications and possible improvements. The moderator could also ask for the input of those who had a similar experience or those who have a different feeling.

Balancing between euphoria and routine

Although the first meeting is all about excitement, over the time this feeling subdues and gives place to something different. So, the organizer should be able to handle the balance between comfort and euphoria. Routine activities provide stability for relationship building connections; exciting events provide a sense of common adventure. CoPs need spaces of trust and security where they can share knowledge without fear or risk. And they need, at the same time, exciting events that challenge what they are doing. All the meetings should have routine activities that are planned to keep constant throughout the meetings (for example, Go-Rounds to share our experience of the “in-between” or learnings applied then) and activities which are proposed by organizers and hold a good amount of surprise.

Another important thing to hold in mind when moving forward, from meeting to meeting, is to keep a good pulse. This is, not all the practitioners move at the same rhythm; individual learning has its own pace. So, the moderator, at every new meeting, should ask for input with regards to whether the rhythm is correct and everybody is satisfied with it.

Evaluating the CoP

At some point, when the process is reaching its end, it will be a good idea to ask the members to assess the CoP, so also the impressions related to the activity are put in common. There are many possibilities to achieve so:

- to have a Go-Round giving some time to each participant to express their feelings and final comments.
- In order to keep it anonymous, and let more space and privacy for criticism of the activities, everybody can write down their comments on a piece of paper which will be eventually read.
- Produce an evaluation questionnaire (with open-ended and closed-ended questions) and distribute it among participants for them to reply.
- If, at the beginning of the workshop, it was produced a document, poster or wall full of fix-its with the expectations and hopes of the participants, we can review them and ask whether these expectations were or not fulfilled.
- Use visual graphs (such as Venn diagrams, or synthetic charts) to map how people are distributed with regards to their feelings and opinions about the CoP. For example, some people might feel confident about the future of the practice, others confident but with some scepticism, others feel confident and also grateful. The different aspects mentioned are visualized in groupings that may have multiple intersections like the figure on the right.

These are just ideas for visualization and organization of information that comes about during the dialogue, but other ideas are also possible and valid. They depend on the creativity of organizers.