URBANITE

Supporting the decision-making in urban transformation with the use of disruptive technologies

Deliverable D2.4

SOPO Lab second session "Create: going into the details of challenges and designing roadmaps"

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Responsible Partner:	Tecnalia Research & Innovation
Status-Version:	Final v1.0
Date:	21.03.2022
Distribution level (CO, PU):	Public

Project Number:	GA 870338
Project Title:	URBANITE

Title of Deliverable:	SOPO Lab second session "Create: going into the details of challenges and designing roadmaps"
Due Date of Delivery to the EC:	31/10/2021

Workpackage responsible for the Deliverable:	WP2- Social impact of disruptive technologies
Editor(s):	Jorge García (Tecnalia), Tatiana Bartolomé (Tecnalia)
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Approved by:	All Partners
Recommended/mandatory readers:	WP6 partners

Abstract:	This deliverable will provide the results and findings of the sessions carried out in each of the cities/nodes in the second round of the Social Policy Lab sessions.
Keyword List:	Social Policy Lab, Co-Creation, Disruptive Technology, Urban Mobility, Amsterdam, Bilbao, Helsinki, Messina
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Document Description

Document Revision History

Version	Date	Modifications Introduced	
		Modification Reason	Modified by
v0.1	24/03/2022	First draft version	TECNALIA
V0.2	30/03/2022	Final Version after review	TECNALIA
V1.0	31/03/2022	Final version for submission	TECNALIA

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Terms and abbreviations

BI	Business Intelligence
CET	Central European Time
FVH	Forum Virium Helsinki
ICT	Information and Communication Technology
SME's	Small and Medium Entreprises
SoPoLab	Social Policy Lab

Executive Summary

This document presents the results and findings of the second Social Policy Lab (SoPoLab) in each of the four URBANITE pilot cities.

In this second session, the main objective was going into the details of challenges that arose in the first session and designing roadmaps for policy co-creation as well as deepen into the results of D6.1 “URBANITE use cases requirements and evaluation methodology” in order to framework the discussion.

Different realities of urban mobility in cities have required different approaches to carry out this second session as well as different states of definition of use cases.That is why this document reflects these divergences and the future plans for each of the co-creation sessions in the pilot cities within WP2.

All the cities share, however, one of the main objectives that were set in the project for this second round of SoPoLabs, which is to start to deepen aspects of Policy-Making. Some cities in the definition and design of future policies, others in the benefits that a collaborative design of policies would bring and others in the challenges or barriers that these policies should address.

This second round of SoPoLabs also reflects the efforts made by cities to involve stakeholders in urban mobility, although there are certain actors that still need to be more representative, which is something we have identified to be done in the next steps.

These next steps will be reflected in the future deliverable D2.5 "SoPoLab Third Session ‘Policy: translating insights into practical policy and requirements’.

1 Introduction

This deliverable is framed within the T2.2 SoPoLabs task and the co-creation process with stakeholders to analyse the attitude and trust of all agents and especially public servants in relation to the use of disruptive technologies in decision-making processes and to identify to what extent the Urbanite ecosystem and platform can be an initiative from which to analyse this attitude and trust.

More precisely, this deliverable is the result of the Subtask 2.2.3 SoPoLab second session "Create: going into the details of challenges and designing roadmaps" and it reflect the results and findings of those local sessions in each of the pilot cities as well as the plans for the next and last local session.

1.1 About this deliverable

This document is the responsibility of Tecnalia Research & Innovation, and it was ultimately this partner that signed and drafted the document.

The document is a product of the contributions made by all the partners involved in the WP, thus, the pilot cities themselves have done the work of collecting the results of the co-creation sessions held in their respective cities and the leader of WP2, WAAG, has worked together with Tecnalia Research & Innovation in the definition and approach of the co-creation sessions, the methodology to be implemented, the dynamics, tools and methods used for the collection of feedback and the structure and approach of this very document.

This document, is the second of a series of 3 deliverables that will reflect and collect the vision of all stakeholders related to the impact of disruptive technologies in public administrations from an urban mobility management point of view, aiming, finally, to provide an empirical analysis on the trust, attitude, impact, challenges and benefits arising from the use of URBANITE disruptive technologies for decision making.

1.2 Document structure

The document presented here is structured as follows:

1 A first section in which we analyse the validity of the scope of the SoPoLabs defined at the beginning of the process after the second SoPoLabs session.

2) A second section in which we directly present the results obtained in each of the 4 sessions held in the 4 pilot cities. The specific objectives of the session, the participating organisations, the activities held, the outcomes and the findings.

3) A final section in which we show the next steps in the co-creation process in view of the third session to be SoPoLabs. We reflect the next steps from a content, process, and outcomes ambition point of view.

2 URBANITE Co-Creation approach

2.1 Validity of the Scope of Social Policy Labs

As it was said in D2.3 "SOPO Lab first session "Ask: defining challenges and formulating shared values and principles", when talking about the scope of the SoPoLabs, we would like to reflect on and review the fundamental pillars on which we based our approach to the SoPoLabs and analyse to what extent these pillars are still valid.

The first pillar we mentioned was to "raise an open and negotiated debate around urban mobility and the impact of disruptive technology on the management of urban mobility" and this pillar is still absolutely valid as it is the one that has guided the debate from the beginning in each pilot city. Talking about urban mobility management, these are precisely the profiles that have the most prominence in our sessions and always, in the background, there is the use of technologies for decision-making and policy-making, and the debate is kept completely open to the community without restricting participation or conditioning contributions.

In relation to the pillar on the creation of a kindred spirits community, it is true that, as reflected in section 4 of this document, we have to make more efforts to try to actively involve certain actors that are not fully present in some of the pilot cities. Some stakeholders were mapped at the beginning of the process, but this stakeholder mapping needs to be continuous and dynamic in order to involve the most relevant actors as the project progresses and evolves. Measures have been taken to address this issue and are reflected in section 4.

Finally, in relation to the third pillar, the co-creation of social value, it is precisely here where we have been most faithful to the initial scope, as the approach of both the first and second SoPoLab has been guided to a certain extent but allowing it to evolve towards those aspects that are of most interest to the community that has been created. This has been especially visible in this second SoPoLab, where the content to be dealt with has been very much conditioned by how the discussion evolved in the first SoPoLab, and the results of the second SoPoLab are a reflection of the evolution that the discussion has been adopting in each city. This is why there are increasingly different approaches between cities, as they are increasingly adjusted to the interests of each use case and to the community of agents created in each pilot city.

A necessary reflection must be made with regard to logistical and format aspects. The impact that the SoPoLabs suffered in their first session due to not being able to hold face-to-face sessions has been reduced, as in all the cities, the meetings and dynamics have been face-to-face (except in Helsinki), and we have seen an improvement in the engagement with stakeholders. We have been able to perceive enthusiasm and excitement for being able to hold these face-to-face meetings and this has helped us to better convey the ideas of the project and gather better quality feedback.

The content of the second SoPoLab was based on the results of the first D2.3 "SOPO Lab first session "Ask: defining challenges and formulating shared values and principles" and a slight refocus on the use case definition and not so much on the evaluation of the platform. We based the content on the results from D6.1 "URBANITE use cases requirements and evaluation methodology" even though initially it was also planned to collect feedback from the public servants in relation to the user experience and usability of the URBANITE platform, but due to scheduling problems and the technological state of the platform, we decided to collect the feedback through the discussion itself in the sessions and to consider carrying out a specific session of user experience and usability testing of the platform later when we have a relay with which to carry out a stable and robust interaction. So this session approach was a follow up of

the discussion from the first session and the results from D6.1 “URBANITE use cases requirements and evaluation methodology” were the framework for that discussion.

As in the first session, Tecnalia and WAAG have provided support through templates, tools and methodologies for the implementation and design of the SoPoLabs.

The second co-creation sessions in the framework of the Social Policy Lab and focused on “Create: going into the details of challenges and designing roadmaps” took place in the 4 pilot cities between the last week of October 2021 and the last week of January 2022, and we will go into detail about each of them in the next section of this document.

3 SoPo Lab second session "Create: going into the details of challenges and designing roadmaps".

According to the initial plan and what was written in the proposal, the second session of the SoPoLabs should be based on the results from D6.1 "URBANITE use cases requirements and evaluation methodology" in order to meet users' real needs regarding the emerging mobility services, but we decided to slightly change the approach of the SoPoLabs and focus them on 1) going into the details of challenges that arise in the first session and designing roadmaps for policy co-creation (as was written in the proposal and 2) focus on the ideal Uses Case Scenario possible regardless the status of the Platform development and its impact on the use case.

This new approach of not focusing yet on the needs of users in relation to the Urbanite technology platform was decided in order to collect that feedback on Platform user interaction or user experience at a later stage of the project once all functionalities are fully developed and feedback WP6 with end users' impressions on the usability and user interaction.

In this deliverable, we describe the results of the second SoPoLabs sessions held in all pilot cities, the focus and specific topics addressed as well as plans for the future.

3.1 Amsterdam second SoPoLab Session

3.1.1 Where we come from

The first series of SoPoLabs included participants who had been in previous discussions to formally consider local attitudes, challenges, capacities, and current contexts with regard to disruptive technologies and participatory mobility. Other goals of these meetings were to:

- Confirm a common understanding of the role, possibilities, and limits of URBANITE
- Understand the challenges and risks the municipality faces with bike/urban mobility
- Position URBANITE in the context of other existing mobility initiatives in Amsterdam, both internal and external to public initiatives within the municipality.

One of the main outcomes of the first SoPoLab was the common understanding that the Amsterdam pilot would not focus on establishing new modes of gathering bicycle data. Rather, the pilot will focus on identifying and unifying existing (open) data sources; and on citizen inclusion and communication regarding new mobility policies and approaches.

Continuing with outcomes of SoPolab 1, the SoPolabs 2 and 3 offer a space to work on the development of a Data Commons for local government and stakeholders in the mobility domain, for the benefit of (1) better cycling policies informed by a data platform, (2) participation of citizens in policy-making and improved interaction between citizens, local government and stakeholder organisations on cycling in the city, and (3) furthering the development of Amsterdam as a responsible digital city. A Data Commons can be described as a new collaboration model for locally sharing mobility data. It could mean true innovation in the governments' collection and use of data for policy-making. Instead of collecting data *about* citizens, a Data Commons facilitates local governments' cooperation *with* citizens as a central mechanism in its policy practices.

3.1.2 SoPoLab second Session

The session in Amsterdam was split in two days, the first on 19 October 2021, at Maker's Guild, Waag, Nieuwmarkt, Amsterdam. And the second one on the 23rd November 2021, facilitated via videocalling due to the pandemic. 12 people participated.

3.1.2.1 Purpose, goals and themes

Purpose. The central aim of this second series of SoPoLabs is defining the first steps towards a functioning Data Commons, focusing on multiple value creation for citizens, bicycle service providers and bicycle (mobility) policy-maker, putting the privacy and safety of citizens first.

Goals. The second series of SoPoLabs (CREATE) were aimed at policy co-creation among stakeholders within and outside of the City of Amsterdam. Practically, they were directed at designing the first steps towards realising Bicycle Data Commons, a shared aim of the participating stakeholders, through which URBANITE ambitions can be realised.

Two sessions were organised.

The goals of the first session were:

- starting a long-term collaboration between policy-makers, data service providers, local data collectors and producers (including citizens);
- exploring the benefits, needs and hurdles for accompanying the innovative collaboration model (data commons): to stimulate data sharing between the actors involved, help them gather insights, and involve citizens or end-users in the process;
- finding an applied use case in Amsterdam to test these possibilities

The goals of the second session were:

- ethical choices related to the use of different types of data, related to dilemmas of sharing bicycle data for policy-making;
- mapping existing data and gaps in data of participants in order to work on purpose;
- getting better insight in data-wishes & needs of partners and other stakeholders;
- defining the next steps for the collaboration to move forward.

It can be concluded that the main theme of these sessions has been "What are necessary steps in developing a Data Commons for mobility data – with a special focus on cyclists – through the collaboration of local government, SMEs, stakeholder organisations and citizens". Working all the participants on these co-creation sessions:

- development of shared understanding of a Data Commons perspective and its value
- formulating a shared use case that provides basis for building the collaboration
- mapping the existing data sources and potential gaps in data around the use case
- insight in data-needs of the various participants (what data on what aggregated level)
- insight in stakeholders of a Data Commons
- insight in potential ethical problems associated with various data sources.

3.1.2.2 Participants

Preparatory conversations have been held with several civil servants from mobility related programs or departments (V&OR; Program Bicycle; Bike-Data enterprise (Ring Ring); Dutch Bike Union.

The list of the participants in the SoPoLabs included people and organisations such as Data specialist (Municipality of Amsterdam), policy-maker program Bicycle (Municipality of Amsterdam), Chief Technology Officer (Municipality of Amsterdam), Bike-Data-commercial party (Ring Ring), Dutch Bike Union and Waag.

3.1.2.3 Activities

As mentioned above, these activities have been framed in 2 different sessions:

Session 1: getting know each other & exploring cases for data commons

The activities carried out were:

- *Introduction*. Introduction round & welcome
- *Bring & get*. Participants completed a list of the things they aim to bring to the cooperation and what they hope to get out of it, in terms of policy goals, knowledge, expertise, organisation capacity, (type of) data, data sources, tools, clients/customers, etc. The lists were displayed for all participants to take a look at them.
- *Motivations*. Participants shared their top ambitions for the data cooperation.
- *Cases.* In two break-out groups potential use cases for the data commons were explored.

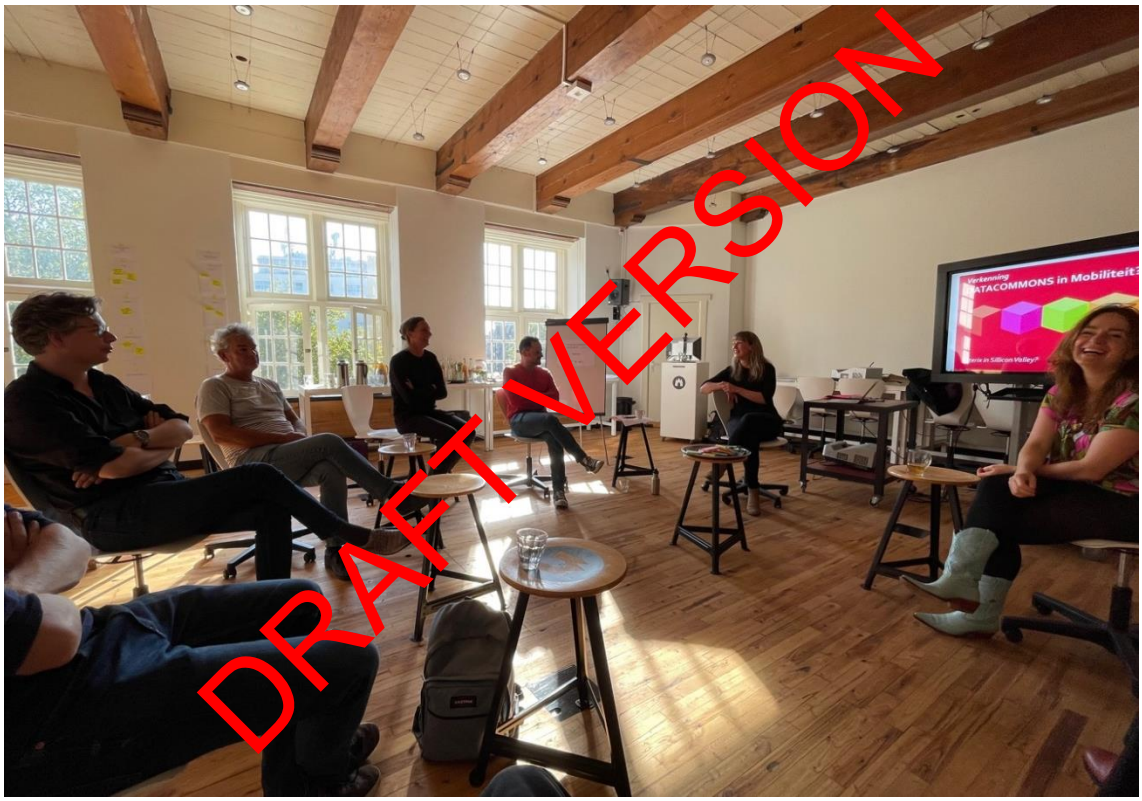

Figure 1. Participants to the first session (19th Oct 2021) of the second SoPoLab in Amsterdam.

Session 2:

Whit these activities:

- *Introduction.* Summary of the ambition, summary of session 1.
- *Timeline exercise.* Participants drafted a timeline with intermediary goals, approaching inspiring and attainable end goals for July 2022. Discussion on necessary steps, roles and expertise.
- *Small group brainstorm on available and existing data sources.*

- *Small group brainstorm about possible data-informed interventions for cycling safety.*

3.1.2.4 Outcomes

The main findings that can be considered as outcomes from these sessions are:

The **outcomes of session 1** were the following shared ambitions:

Make Amsterdam (an even more) safe and comfortable environment for cyclists. Part of the ambition is achieving these goals with the engagement of Amsterdam cyclists and residents.

- Use data to make cycling attractive and let residents decide what works for them in terms of cycling, cycling infrastructure & policies, by engaging cyclists in both data practices and policy decisions on cycling in Amsterdam.
- Use data to make good decisions by learning from data about potential improvements for cycling in the city.

The participants of this first session see opportunities to improve insights for decision-making by a data collaboration as participants all have (access to) different types of data. Such as route data, data on experiences of cyclists, on infrastructure, and floating data. Currently, it is not uncommon that decisions are based on historic, single datapoints.

Various aspects of organising data for decision making were discussed. Participants brought in that a 'foundation of data' is needed, as some experience a need for more complete data. However, participants also mentioned, a lot of data does not necessarily mean insight nor good decisions.

Another aspect of data for decision-making discussed, was the question of honesty in data collection. How should residents be included in policy-making, data collection, data analysis and application? Some thoughts on this were shared:

- Is 'real participation' having control by bringing in bottlenecks, by collecting data, by being able to make requests for infrastructure changes, making clear agreements on what the municipality can do with the data and what not, and the need to anonymise data?
- In order for residents to co-decide it would be necessary to restore trust in the government, make clear what it is that residents can influence by collecting data, take residents seriously and formulate clear expectations. This will always be complex due to opposing interests among residents.

Participants decided that the case of 'safer cycling routes to schools and sports clubs in Amsterdam North' was of shared interest and offer a good opportunity to test the potential of a data collaboration. A list of safety indicators was drafted and two scenarios for the data commons have been formulated:

- the possibility of flexible zoning and planning logistic traffic at times when cycling traffic is low;
- the concept of routes for different types of cyclists: the slower and faster ones.

The **outcomes of session 2** were:

- Formulation of shared ambitions amongst participants: developing a data 'foundation'/ecosystem; optimising safe cycling routes; increase ownership & democratic engagement'.
- Understanding of stakes of potential users of the data commons, stakeholders and problem owners that can potentially benefit from the data collaboration.
- Inventory of data sources and potentially missing data for answering questions of the use case.
- Defining the next steps in the collaboration.

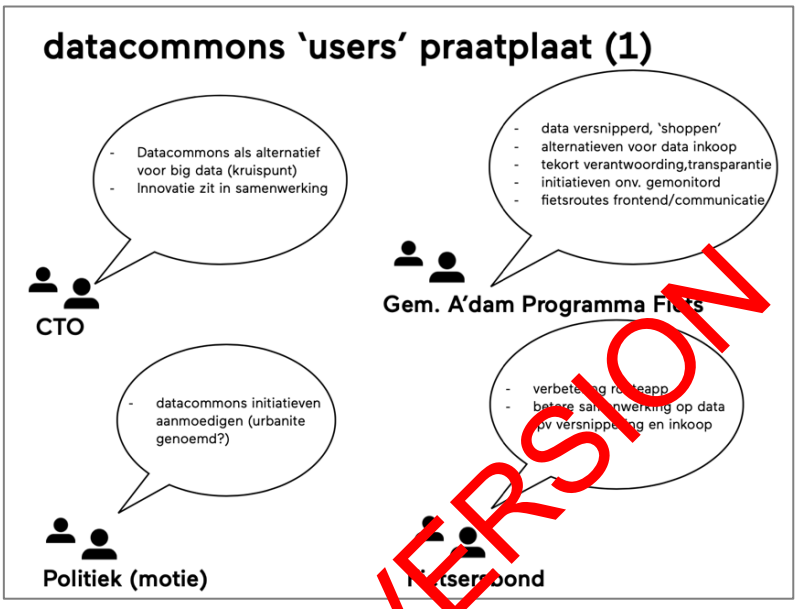

Figure 2. Visualisation of potential users of the data commons. Used during second session (23rd Nov 2021) of second SopoLab in Amsterdam.

During the brainstorming on interventions for cycling safety, potentially made possible by data collaboration, two ideas were discussed:

- developing routes for three categories of cyclists: the <8 & 80> years cyclists (careful and calm), the speed cyclists (delivery & sports), the 'family cyclist';
- collecting data with citizens (instead of placing camera's), in order to make residents experience they can have an influence on their environment. Several options for data collection were discussed.

During the brainstorm on the data foundation, participants formulated the aim to work toward an ecosystem to exchange data and use data. Starting with an online 'place' where various data sources, research and standard analysis can be made accessible for the participants. Later adding possibilities for interaction between residents and organisations that aim to use the data commons. The characteristics of the prototype are:

- The data should be made available for various user groups (cyclists, municipality, SME's, civil society) through apps for various services on the data
- The data commons should function as sort of central communication interface, with information and datasets, accessible for the various participants. Some data should be accessible only on some aggregated levels for the participants.

- It is a basic data infrastructure, with applications and tools for various users to use the infrastructure for their purposes (which should be in line with the central aim of the data commons)
- Based on collaboration with residents
- It should offer an easy and safe way of sharing / opening up data for participants.
- Strong communication towards cyclists. Without cyclists, no data.

It is to be highlighted that ethical topics were discussed in both sessions, about data-driven policy and data collaboration:

- The question of trust in data collection and application for policy. What does the municipality do with data produced by residents? When are things (regarding cycling policy and infrastructure but also data handling) good enough?
- There is a risk that data models become decisive in decision making about public space. Participants reflected on the question what type of problems can be solved through the lens of data. How can residents' ideas and concerns keep playing a role in 'data driven' policy? Data should be of service to those concerns and ideas, how to safeguard that dynamic?

3.2 Bilbao second SoPoLab Session

3.2.1 Where we come from

During the first SoPoLab session, one of the first conclusions reached was how to make co-creation a real citizen involvement activity and not an individual debate, while another major debate was the use of data for decision-making and the implication of data anonymisation in relation to the user. A third block of debate revolved around mobility services and their management, as well as the network of agents involved in these services and the complexity of bringing interests together.

Based on these conclusions of the first session and the Mural that was worked on jointly during the first session (https://app.mural.co/t/bilbao3917/m/bilbao3917/1618217235615/e6d90efa07cfc00052955628c4130b02f079bea8?sender=u7b11d0fe8d688f4ddde51933), a specific methodology was proposed (which we will detail below) to go deeper into these aspects and to start designing possible solutions and policy-making aspects.

3.2.2 SoPoLab second Session

The session was held on the 21st of January 2022 at 10.00 a.m (CET) in the 7th floor of the Town hall main building of the Municipality of Bilbao. It lasts for three and a half hours (10:30 – 14:00). It was carried out in the presence, hosted by the Mobility Cluster of Bilbao, facilitated by Tecnalia Research & Innovation and with the participation of the Municipality of Bilbao. Microsoft Teams videoconference service and 15 participants attended plus the hosts and facilitators; 19 people attended.

Figure 3. Participants to the Second Bilbao URBANITE SoPoLab session

3.2.2.1 Purpose, goals and themes

The main aim of the session was to deep diving into the urban mobility management ecosystem of Bilbao and the use case scenario of Urbanite to identify opportunities for cross-department and stakeholder collaboration that Urbanite project can facilitate or contribute to in the coming years.

Based on the following starting point: "Bilbao Scenario: how can we improve the Urban Mobility Management of the city?", the proposed methodology aimed to discuss 5 main thematic blocks arising from the first SoPoLab session (i.e.: Data, Mobility Management, Cross-department collaboration, Stakeholder engagement and trust and attitude towards the technology) to work on 1) "Desired futures", i.e. how we see the future of urban mobility management in relation to each of the thematic blocks in the medium and long term, 2) "Barriers and challenges", i.e. what barriers and obstacles we currently face in order for these desired futures to be fulfilled and 3) Opportunities arising from trying to find solutions to these challenges and barriers.

3.2.2.2 Participants

A total of 15 people from 12 organisations participated in the Second session of the SoPoLab. There were also 4 more people as host and facilitators of the SoPoLab Session; in total 19 people attended. All people attending the SoPoLab session signed the Informed Consent Form regulating their personal data and their contributions during the workshop.

All the organisations, except Tecnalia Research & Innovation, belong to the Sustainable Mobility Forum of Bilbao that integrates different neighbourhood and business associations and other relevant mobility agents. These organizations were:

- Bilbao Municipality: City's administrators, Local Authorities target group, participation as "Limited delegation": Partner organizations give limited control over decision making to community.
- ALSA: Alsa is the leading operator in the Spanish sector of passenger transport by road. As an integral operator, it is able to meet the different transportation needs of citizens providing a wide range of regional, national, international, urban, discretionary (coach hire), and tourist services. Additionally, Alsa specialises in the management of bus stations, service areas, and vehicle maintenance areas.
- BATURA: Mobility service provider. BilbaoBus app developer. As contractors in charge of municipal services and/or systems management they may benefit from implementing functionalities that better supports them on integrating data with other systems. Business Companies, Urban Mobility Platforms target group.
- GERTEK: a company involved in urban and interurban traffic management, providing tools and experience to improve the mobility of people and goods.
  Gertek can bring new ways of solving problems, experience and state-of-the-art tools to improve urban mobility management.
- IBILKARI: A car Sharing service that offers a practical, efficient and cost-effective alternative to owning a car. Inspired by the car sharing system, IBILKARI began with a pilot project in Bilbao, managing several cars and promoting the creation of several local initiatives, Fleet Management Services and Car Sharing in neighbourhoods.
- IDOM: Consultancy and Engineering Services. City Advisor. As consultant company, they can benefit from project results to better support the making decision process

of mobility politics. Business Companies, Urban Mobility Platforms target group. Expected participations as "Advisory input": Community has a formal advisory role.

- INGARTEK: At Ingartek we offer our services to the public administration, to transport operators, concessions and engineering companies, carrying out studies on traffic, mobility, transport and urban planning.
- KAPSCH: Mobility service provider. Traffic Control Centre System Provider. As contractors in charge of municipal services and/or systems management they may benefit from implementing functionalities that better supports them on integrating data with other systems. Business Companies, Urban Mobility Platforms target group.
- LEBER: Traffic & Transport Consultancy. City SUMP Advisor. Business Companies, Urban Mobility Platforms target group. Expected participations as "Advisory input": Community has a formal advisory role.
- TECNALIA Smart Mobility Lab: Unique infrastructure that enables the rapid prototyping of smart traffic management applications and systems in urban and interurban areas. It is aimed at increasing the level of intelligence in mobility management systems through advanced tools for analysing, simulating and predicting traffic information.
- TXITA: Sustainable urban transport company specialised in last-mile distribution of goods and other uses of tricycles. Experts in advice, sale and rental of tricycles.
- DACHSER: As an urban delivery company, the German freight company, whose participation is related to urban deliveries and to discuss on last-mile aspects, contributes with its expertise and experience in the area.

3.2.2.3 Activities

The session was structured into four sequential and interconnected slots that were previously shared among the participants. The schedule was:

- Use Case presentation: The objective was to present and contextualise the vision of Urbanite in Bilbao through the presentation of the use case defined in the project. The identified needs, the value proposition canvas as well as mock-ups of simulations were shown.
- Guiding Stars & Desired Futures: We started from a 'guiding star'. A guiding star is a vision that is framed as the desired future system toward which we were working:

    - ''Our guiding star is a decision-making tool for the municipality of Bilbao that produces [desired condition]''.
    - ''Our guiding star is a collaborative ecosystem of the stakeholders in Bilbao that produces [desired condition]''.
    - ''Our guiding star is a collaborative ecosystem of the stakeholders in Bilbao that produces [desired condition]''.

    We divided the participants in 3 groups (5 people per group) and provided each group with a Canvas elaborated ad hoc + post its. Using the 5 impact themes of our Use Case mentioned above as a reference, participants discussed and wrote on post-its their desired futures. The focus was on Bilbao Use case and the facilitators stayed at the tables to help participants if they got stuck or to trigger the conversation.

- Reframing barriers and issues in the present: In a third step, participants worked on ''barriers & issues'' area. Based on the guiding stars identified in each group, they mapped out current issues & barriers, responding to questions related to the desired futures such as:
    - ''Why is a collaboration among stakeholders not happening or happening in a fragmented way?''
    - ''What is blocking a comprehensive data governance framework or cross-department collaboration towards the desired futures? What are the key barriers?''
    - "Why are we not trusting AI-based decision-making tools for urban mobility management?
    - ''What are the ''root problems'' and what are the consequences?''

  Facilitators moved around the tables to help participants, especially to reflect on ''root issues Vs consequences'' (they used post-its of different shapes to visualise the distinction).
- Plenary Session: After working in groups, the participants reconvene in plenary and participants were asked to report on their discussion. The facilitators reflected on a central common canvas all the highlights and hot topics mentioned in the plenary session and sticking in the centre of the canvas move post its onto the big central canvas on the wall. We spend some time looking at the canvas together, in order to notice whether there are some starting features or opportunities, for example, certain themes that emerge more than others, or something missing in terms of desired futures or issues/barriers as well as potential connections.

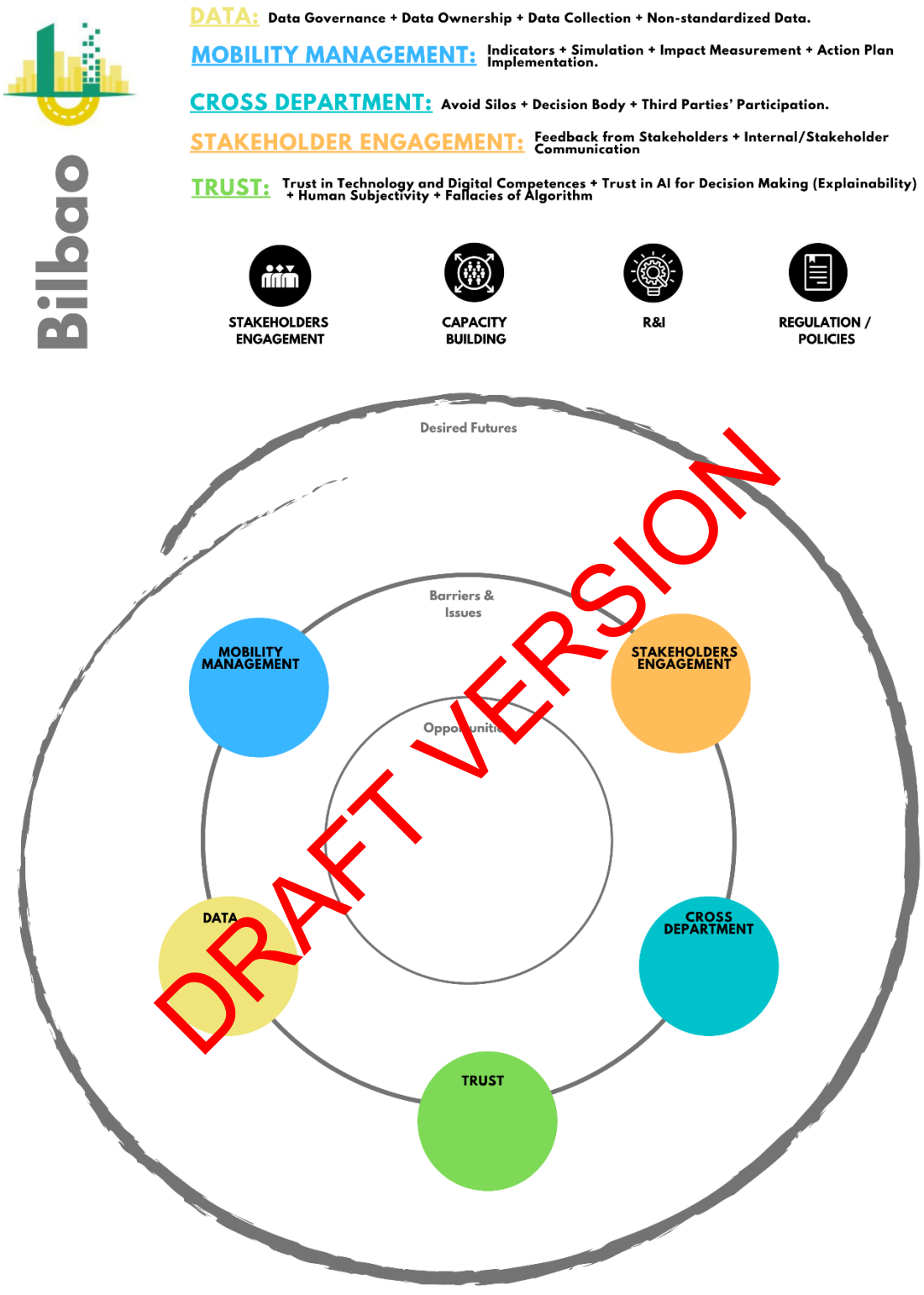

Figure 4. Desired Futures Canvas

3.2.2.4 Outcomes

In relation to the desired futures, the participants reflected the following wishes:

- Future of Mobility Management: In this section, we discuss desired futures related to obtaining Indicators, Simulation scenarios, interoperability and integrated mobility.
- Stakeholder Engagement Futures: Desired futures were identified in relation to obtaining feedback from stakeholders, communication with them, the capacity of involvement...
- Future in Cross-departmental Connection: Here the participants reflected on desired futures that would avoid silos, that would foster relations between departments and administrations, etc...
- Future of Trust: What future we wish for when talking about user trust and attitude, aspects related to Trust in Technology and AI for Decision Making.
- Future of Data: Desired futures of aspects of Data Governance, Data Ownership and Data Collection, as well as Data Harmonization.

Those desired futures drove us to the following Barriers and Issues:

- Barriers and Challenges in Mobility Management: Issues related to short-termism in planning, lack of a single ticket to foster interoperability and fear of change to improve mobility management were identified.
- Barriers and Challenges to Stakeholder Involvement: Emphasis was placed on the need to disseminate the mobility culture to involve all stakeholders and try to align interests to reach compromises.
- Barriers and Challenges of Interdepartmental Connection: Different administrations or departments have different interests and the plurality of visions is a challenge, a single authority is needed.
- Trust Barriers and Challenges: Challenges revolve around the choice of sources and data that engender trust and avoid ignorance of the technology through awareness raising and sensitization.
- Data Barriers and Challenges: In relation to Data, particular emphasis was placed on the lack of trust in data and the lack of data planning and governance, linked to the need for an overall Data Plan.

After these working groups, we worked in a plenary session mode trying to identify challenges and opportunities to work on in upcoming workshops.

Three main challenges and opportunities for future work were identified:

Data in Urban Mobility:
Opportunity around a challenge that focuses on defining a data plan, a data strategy for urban mobility and focuses on the use of data for decision making. Importance of data quality: Harmonisation and standardisation of data. This challenge should also work around data-driven decision making, i.e. managing diverse capacities to harmonise the data, prioritise it, generate indicators and package it all so that the decision can be transferred to both an administration and citizen participation. And finally, to ensure that data is a business, i.e. to reflect the need for financial resources and to draw on experiences in other countries that have worked. Professionalise services with portfolios of products, innovations, etc. of companies.

Policies:
Another challenge has been defined to work on policy-making aspects ranging from the improvement of vision and cooperation between institutions to aspects of cultural change and

awareness-raising among citizens, as well as concrete regulations and policies to push forward a Data Plan for urban mobility.
In relation to citizens, policies are needed to raise awareness, change consumption habits, sustainability, new mobility and the environment.
It is also necessary to work on policies that improve cooperation between institutions, i.e. to create policies and laws along the same lines from all institutions, avoiding incoherence and conflicts of interest.
All these measures must be accompanied by economic measures, more investment and resources. The technology is mature and does not need more R&D, but rather commitment and implementation. And lastly, they must be policies with a higher level of concreteness and commitment, as there is a lack of regulations and concrete policies, and we must commit to a consensus-based, long-term Data Plan.

Cultural Shift:
The last challenge and opportunity for future work is closely related to aspects of trust and attitude towards the use of technology. This challenge would focus on opportunities around fostering citizen participation in urban mobility management processes, improving trust and communication between all actors involved and analysing people's competences and skills.
Citizen participation and social awareness policies need to be defined and promoted, and closer proximity to the end-user/citizen, more open participation formulas that help to obtain representative feedback from citizens need to be ensured. It is also necessary to analyse how to improve education and skills among workers and decision-makers and to promote a better academic offer. And finally, with regard to decision-makers, there is a need to build trust in data for decision-making and to improve communication between managers and technologists.

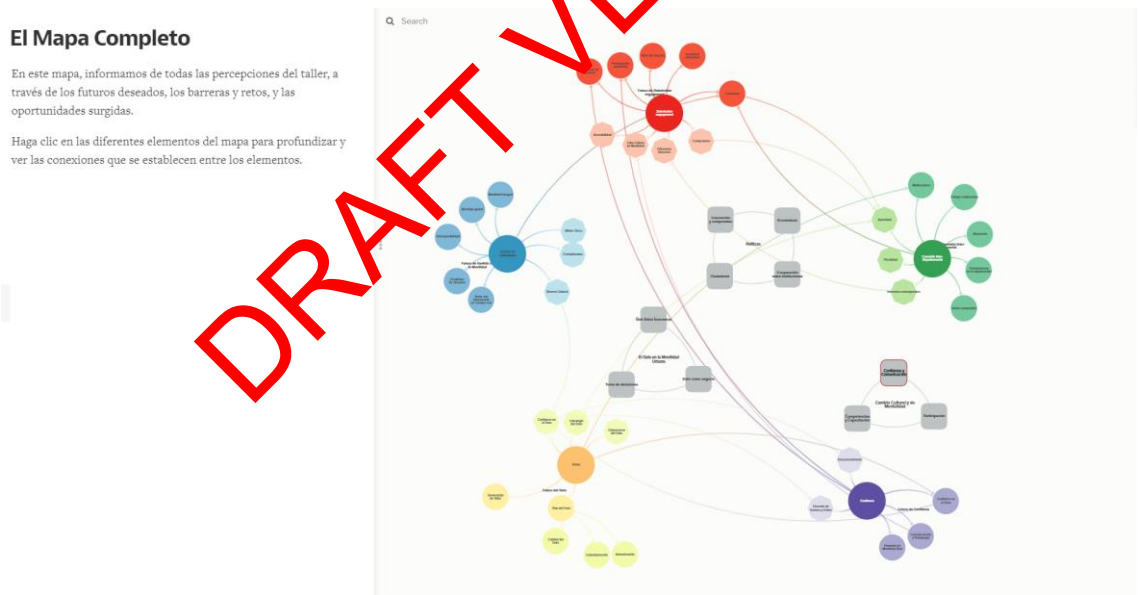

Figure 5. A Kumu Map reflecting all findings and outcomes from the second SoPoLab session in Bilbao

It was agreed to continue working on these last 3 major blocks of challenges and opportunities in future co-creation dynamics. There is a solid base both in terms of participants and in terms of themes and content, so that for future dynamics or workshops we will focus on continuing to

work on this content and with the same group of agents, although we will try to strengthen the working group by involving more representatives of citizens/civil society.

To access the total results of the second SoPoLab in order to consult in detail all the desired futures, challenges and opportunities identified, please access the following link:

https://jorgetecnalia.kumu.io/urbanite-reflection-discover-sopolab-bilbao

3.3 Helsinki first SoPoLab Session

3.3.1 Where we come from

One of the main conclusions of the first SoPoLab in Helsinki is that traffic data the city's stakeholders are using is fragmented, located in different locations (virtual and even non-virtual) and in different data forms. Stakeholders are using many different platforms and BI solutions. Information is not freely flowing between urban planners, traffic planners, researchers, etc. , as well as it could. Due to this, data that the city owns is not wide-spread in the use of traffic and urban planners, researchers and other stakeholders. The participants considered it important to gather data into one location and to build an easy-to-use data platform. This finding is in line with Helsinki's Smart Mobility strategy 2030, where a target to build a data platform for traffic data is highly underlined.

3.3.2 SoPoLab Second Session

This second round of the SoPoLabs session, due to COVID-19 restrictions and logistics burdens was organised as one-to-one meetings and small group interviews, both on an online basis. They were organised in December 2021 (12/7-8, 12/10, 12/14), lasting between 35 mins and 1h15mins each.

3.3.2.1 Purpose, goals and themes

According to the outcomes obtained in the first session of the SoPoLab and in order to go deeper into that finding, the approach for the second SoPoLab was a follow-up of the conversations carried out previously, whose aim was to

a) gather more information about what kind of data platforms/BI solutions city's stakeholders are currently using and for what purpose,
b) take a more in-depth look into the users' needs related to the traffic data platform and
c) gather understanding related to the traffic simulations stakeholders are using and needing.

3.3.2.2 Participants

Eleven different stakeholders took part in the SoPoLab even though most of them were coming from the Municipality itself. An external organization specialized in traffic management was involved apart from different departments and roles within the Municipality. All total stakeholders are listed above:

- Project manager, Department of Tourism, the city of Helsinki
- Researcher, Department of Tourism, the city of Helsinki
- Senior Advisor, Department of Tourism, the city of Helsinki
- Cycling Coordinator, Department of Urban planning and environment, the city of Helsinki
- Traffic researcher, Department of Urban planning and environment, the city of Helsinki
- Traffic researcher, Department of Urban planning and environment, the city of Helsinki
- Traffic engineer, Department of Urban planning and environment, the city of Helsinki
- Statics and Information Services Manager, Department of Urban planning and environment, the city of Helsinki
- Traffic engineer, Department of Urban planning and environment, the city of Helsinki
- Traffic specialist, Traffic Management Center
- Team Leader/Urban Planning, Department of Urban planning and environment, the city of Helsinki

3.3.2.3 Activities

In brief, the participants were asked to present one or more BI solutions or data platforms they're using in their work, give feedback (pros and cons, development ideas) about their usage, and discuss traffic simulations they're using, if any. If the participants were using traffic simulations/models as part of their work, they were asked to discuss the usage of simulations and present ideas to develop them.

The session was based on one-to-one or small group conversations with the stakeholders in which notes were taken of comments in an active listening approach to try to gain as much knowledge as possible.

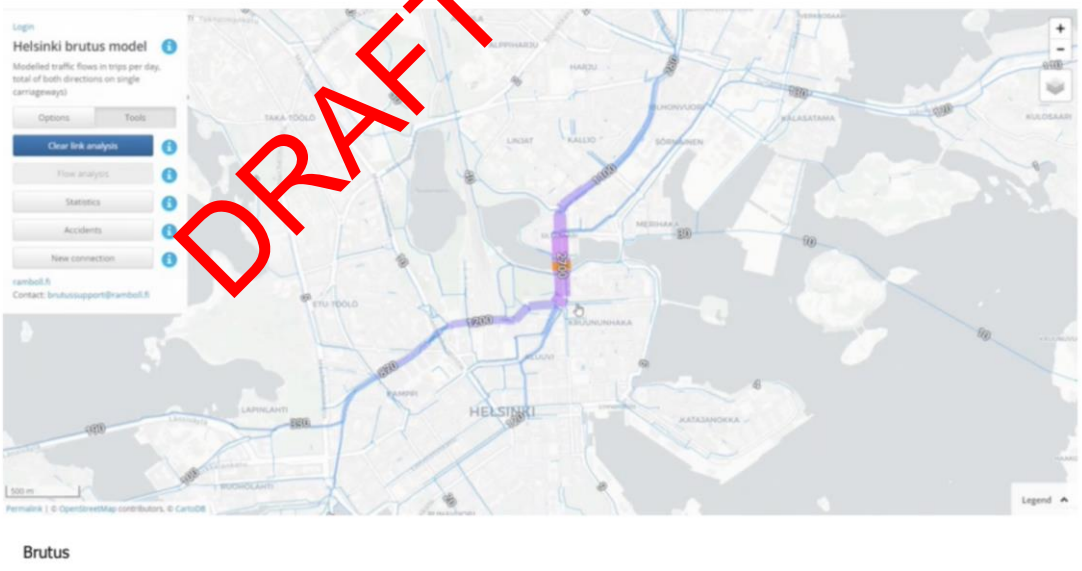

Figure 6. Brutus cycling simulation model, presented by a participant in the interview (a biking coordinator).

3.3.2.4 Outcomes

The participants used many different traffic platforms and BI solutions in their daily life at work for different purposes. This was since the stakeholders' needs are very heterogeneous. Importantly, the stakeholders do not want the number of platforms to grow. Rather, they wanted to have a single platform. However, as the needs are very different, there’s a call for a highly modifiable platform for various traffic data. This finding is in line with the conclusion of the first SoPoLab.

Many participants mentioned the city’s Paikkatietovipunen platform, which they use regularly. It’s a GIS-based tool for different data sets. The participants mentioned that Vipunen has many advantages, such as it includes plenty of data, it serves many needs and data is visualized on maps. However, the usage of the platform is exhausting and it’s difficult to find the needed information because it includes very much data. That is to say, the current situation is not satisfying even if Vipunen has advantages.

The used data has to be high-quality, or at least knowledge of its weaknesses is central. Therefore, the stakeholders considered it important to be able to download the original data to check it. This was particularly interesting for researchers. The participants also wished that the verifying and “cleaning process” of data was somehow automized. Now, the data needs to be cleaned manually, which is time consuming and costly.

The Jätkäsaari simulation model is simulating the forthcoming tunnel and provides a macro-level simulation of the city’s traffic. The participants addressed a need towards a **“raw simulation model”**, that could be integrated into an existing platform. They did not want to have a separate platform, even for these simulations. Here also the participants underlined modifiability, and the need to understand the chosen parameters. Even if the group of stakeholders using and developing traffic simulations is rather small in Helsinki, there seemed to be some gaps in knowledge sharing between actors. For instance, one central simulation can be only used with certain (commercial) tools and the stakeholders are not aware of each other's work. One conclusion is that the URBANITE project could help the city to connect the stakeholders working with simulations better.

The findings of the second SoPoLab helped to define more the role of the URBANITE project. In particular, **the role of simulations has been raised**, and there’s an increased interest towards the simulation models the URBANITE project is developing.

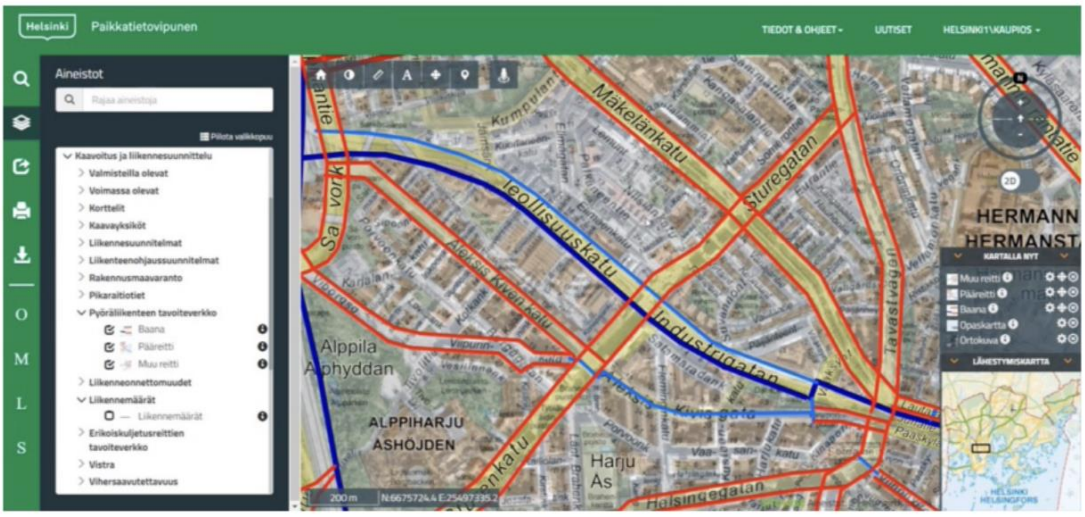

Figure 7. Paikkatietovipunen, a GIS-tool and data platform, that is used by several stakeholders.

Based on the findings of the 1st and 2nd SoPoLAb, FVH will help the city to build a data platform for traffic data in cooperation with the city's LIDO project. Along with this, FVH's target is to gather stakeholders interested in traffic simulations/ modelling together. In practice, FVH will continue tight cooperation with the city's LIDO project but also will bring Aalto University and Helsinki Regional Traffic together to discuss their simulation work, their genuine needs related to traffic simulations, and also to network. As the stakeholders are mainly highly skilled, FVH's role is to bring these actors together and share information. FVH has already met researchers from the Aalto University and Helsinki Region Traffic to discuss their current simulation work and possible needs, along with meetings with the LIDO project. This work will ground the target of the 3rd SoPoLab. Eventually, these acts will strengthen the smart mobility data ecosystem in the region.

From the perspective of local policies, well-functioning and trustworthy simulations can help the city to make better traffic planning. It's also advantageous to the city to have a network of stakeholders who are well-connected. In Jätkäsaari, the simulation model helps to present the pros and cons of the Jätkäsaari tunnel project to the citizens and policy-makers. The simulations provided by the URBANITE project will help with this work.

3.4 Messina second SoPoLab Session

3.4.1 Context and background

The first SoPolab of URBANITE in Messina took place on January 29, 2021, in virtual mode through the Microsoft Teams platform. It presented the URBANITE project as a whole, the role of the city of Messina as a pilot project alongside the cities of Amsterdam, Bilbao and Helsinki and the opportunities of a co-creation laboratory for all the local stakeholders.

The event involved local and international urban mobility experts, discussing the importance of the adoption of ICT (Information and Communication Technology) systems, the opportunities and risks of a "democratic governance" in the definition of mobility policies, the possible and fruitful participation of citizens in the planning of mobility systems, and the importance of

transparency in decision-making processes, which can be guaranteed by the use of the technologies themselves.

The strategic objectives that have been identified within this first event, are:

1) the promotion of ICT technologies in municipal departments to **avoid the isolation of data and processes**;
2) the creation of a group of third parties (**stakeholders**) with local and international expertise on urban mobility issues that can **actively support new decision-making processes**;
3) possible areas of strategic intervention to **improve urban mobility in the city** of Messina.

The results of the first SoPoLab of URBANITE event have been processed within the different project activities, in order to find the strategic objectives for the city of Messina in correspondence with the key objectives of the URBANITE project itself.

3.4.2 SoPoLab second Session

The second SoPoLab event took place at the City of Messina on December 17, 2021. It was a was held in presence with contributions from external experts and a final open discussion. It took place at the Salone delle Bandiera in Palazzo Zanca.

Figure 8: The open discussion held in Messina around innovation in mobility in urban areas

3.4.2.1 Purpose, goals and themes

According to the results of WP2 activities, two key thematic areas have been identified as priorities for the city of Messina, that are sustainable mobility and multimodal transport.

Regarding sustainable mobility, the identified strategic objectives are related to extending and/or improving the bicycle network with new bike lanes and/or connections between the center and the suburbs, to spread the use of bicycle mobility or micro-mobility (e.g. electric scooters) and to define an integrated system of pedestrian areas and bicycle paths.

Regarding multimodal transport, the objectives aim to allow citizens, inhabitants, commuters and visitors to move and cross the city seamlessly and to optimize the management of mobility resources and services and the interaction between them, reducing waste of resources and costs.

The second SoPoLab-URBANITE aimed to go in-depth in the analysis of these two thematic areas, identifying opportunities and possible issues, allowing different stakeholders to discuss how reaching results and which possible approaches can be used.

3.4.2.2 Participants

The participants in this second session of the SoPoLab in URBANITE were delegates of public departments and private companies, most of them had already attended the previous session. In total, 18 people attended the session coming from the following organisations:

- Municipality of Messina - Mobility Department
- Municipality of Messina - CED (data processing center)
- ATM (Municipal Transport Company),
- Caronte&Tourist (private shipping company of Messina)
- Medtrek (private company dealing with mobility)
- University of Messina
- Professional orders of the city of Messina.
- Engineering Ingegneria Informatica SpA
- Alma Digit srl

3.4.2.3 Activities

The activities started with an introduction to the session and the project by URBANITE partners in Messina and after the contextualization of the session, speeches from mobility experts took place:

- The Mobility Councillor highlighted the objectives of the project and the expectations on the results of the SoPoLab.
- The responsible of the Urbanite project for the Municipality of Messina presented the results already achieved from the project and can be exploited in the future decision policies of local stakeholders.
- The Mobility Manager of the University of Messina presented some mobility actions of the University in Messina.
- The Mobility Manager of the Municipality of Messina highlighted the strategic objectives of the Municipality of Messina that have been carried out in recent years in the field of urban mobility.

- A professor of transport systems at the University of Messina analysed some initiatives launched in other worldwide cities for multimodal mobility in modern urban contexts as possible sources of inspiration.
- The Academic Advisor on Smart Cities for the Municipality of Messina presented the impact of digital services and disruptive technologies on the effective fulfilment of innovative solutions.
- Alma Digit srl presented some strategies and useful digital tools (such as the DECIDIM platform) that could be useful to actualise the co-creation of decision policy processes in the city of Messina.

After the expert speeches, an Open Round Table gave the opportunity to the audience to share ideas and comments, especially on the following topics:

- stakeholders should be involved in the SoPoLab activities according to their specific interests and expertise;
- the priorities of the decision policy processes in the co-creation labs should be endorsed by all the active stakeholders interested in a specific thematic area;
- how proposals in the co-creation lab can be made concrete in terms of decision policy processes.

Figure 9. The Value proposition canvas of Messina was shared with the stakeholders during the session

3.4.2.4 Outcomes

The key outcome of the second SoPoLab in Messina is the definition of the methodology that will be used for the co-creation of new policy-making strategies. It is mainly composed of two phases:

1) **asynchronous interaction among the stakeholders**: it will allow the stakeholders to exchange ideas and identify the most strategic issues that need innovation and new decision-making processes with reference to the two key thematic areas of the SoPoLab, that are sustainable mobility and multimodal transport. This phase will be managed using the DECIDIM platform (https://forum.urbanite-project.eu/), where each participant could propose new debates or comment on the debates already pushed;
2) **organisation of technical tables**: technical tables will be focused on some of the specific topics discussed through the celebration of the sessions, where the stakeholders active on such topics will collaborate to support Policy Makers, hopefully identifying new decision policies. Technical tables will be managed by adopting a Sociocratic Decision Method, which is a new approach to create safe and productive working environments. This will encourage constructive debate as, instead of counting opinions for or against a specific proposal, the important reasons for not implementing a proposal can be discussed, primarily bringing professional expertise into play instead of personal preferences, so overcoming conflicts.

Through the technical tables activities and the positive interaction among stakeholders, it will be possible to create a collaborative and long-lasting ecosystem of experts and key actors able to be an active part in the next future decision-making processes, also playing specific roles within the future urban mobility systems that will be implemented for the city of Messina.

4 Next Steps

The next steps in the implementation of the co-creation process through the Social Policy Labs are articulated in four main aspects.

In order to have more precise control of the process in each of the pilot cities, as well as to be able to define the next steps and document the whole process in D2.6 and reflect the lessons learned, we have established an internal process in WP2 with **one-on-one meetings** between WAAG/Tecnalia and the pilot cities to **reflect in a logbook** the progress made in terms of contacts and stakeholder involvement as well as concrete actions derived from the results of SoPoLab 2, this will help us to better define the dynamics and expected results of the third SoPoLab session.

On the other hand, we are aware that the **URBANITE Forum**, the meeting space developed in the project and passed on in DECIDIM, has not been exploited as intensively as we would have liked. This is due to the existence in some cities of similar forums and to the low engagement achieved at the beginning of the project due to the lack of face-to-face meetings in which to achieve a higher involvement of the participants. From this second session of the SoPoLabs, we have improved the engagement with the stakeholders thanks to the celebration of the face-to-face dynamics and, in Messina and Bilbao, we will continue to feed and interact with URBANITE Forum in order to follow up the results of the sessions. Thus, in Messina they will continue to interact with stakeholders to exchange ideas on policy-making strategies and in Bilbao the KUMU Map will be shared to collect feedback and capture the interest of stakeholders to participate in one of the 3 challenges/opportunities defined (https://jorgetecnalia.kumu.io/urbanite-reflection-discover-sopolab-bilbao).

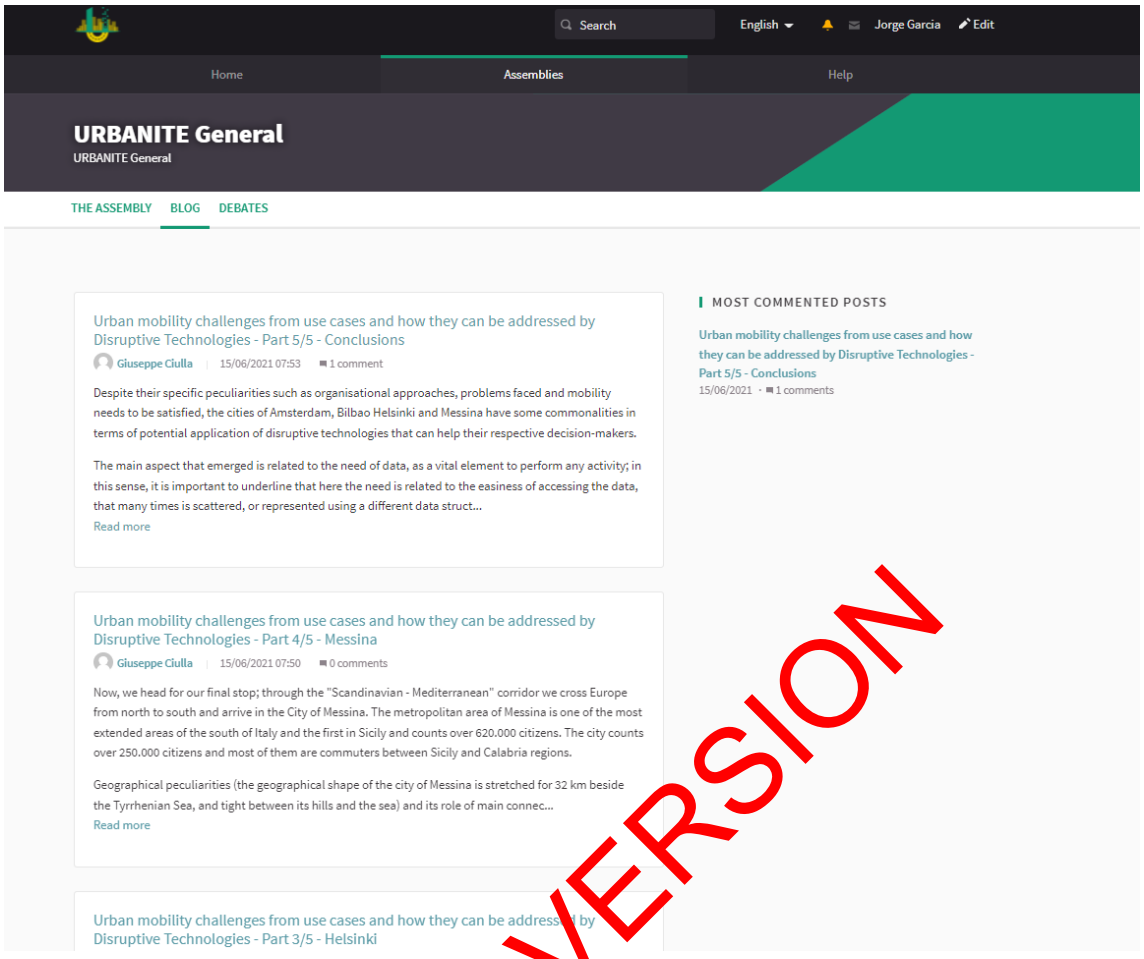

Figure 10. A screenshot of URBANITE Forum, based on DECIDIM, where the Urban Mobility challenges from the Use Cases where shared among the community

It is worth mentioning also that along all pilots, in this second session of the SoPoLabs, all cities have started to explore aspects related to **policy-making**.

In Amsterdam, ethical topics regarding data-driven policy and data collaboration were discussed. It raised the issue of residents and their ideas and needs and how to safeguard those visions and concerns in a data-driven policy approach. This is an aspect that will be worked on further.

In Bilbao, policy-making aspects ranging from the improvement of vision and cooperation between institutions to aspects of cultural change and awareness-raising among citizens, as well as concrete regulations and policies to push forward a Data Plan for urban mobility were raised. In relation to citizens, policies to raise awareness on data-driven decision making, or policies to change consumption habits, or to change the way we move around the city were identified as needed. And lastly, they identify as necessary also to work on policies that improve cooperation between institutions, i.e. to create policies and laws along the same lines from all institutions, avoiding incoherence and conflicts of interest.

In Helsinki, the conversation on policy-making was around local policies. It was mentioned that well-functioning and trustworthy simulations can help the city to make better traffic planning.

It's also advantageous to the city to have a network of stakeholders who are well-connected. In Jätkäsaari, the simulation model helps to present the pros and cons of the Jätkäsaari tunnel project to the citizens and policy-makers. This is the reason why Helsinki use case is focusing especially on the simulation aspects of the project.

In Messina, one of the main outcomes of the second SoPoLab was actually to organize technical tables that will be focused on some of the specific topics discussed through the celebration of the sessions, where the stakeholders active on such topics will collaborate to support Policy Makers with the intention to define new policies adopting a Sociocratic Decision Method, which is a new approach to create safe and productive working environments in policy-making.

Lastly, there's an aspect along all pilots that need to be highlighted as well. It's crucial to **involve all actors of the value chain of urban mobility** in this co-creation process to analyse the impact of using disruptive technologies by the public administration for decision making, and in order to identify factors (positive and negative) that affect the adoption of disruptive technologies and whenever possible, means on how to deal with such factors, actors such as civil society/citizens or private companies/service providers must be involved in the process. Within this second session, efforts in that sense have been made, but we are still talking a representative participation of some actors in some pilot cities. This is something that has been tackled and that we hope to improve thanks to the one-on-one monthly meetings and the use of the logbook mentioned above.