



DECARBOMILE

Decarbonise last mile logistics

DELIVERABLE 2.2

Co-Creation Methodologies for Stakeholders and Business Development

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Nature of the Deliverable		
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DEM	Demonstrator, pilot, prototype	
DATA	Data sets, microdata, etc.	
OTHER	Software, technical diagram, etc.	

Dissemination Level		
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PROJECT SUMMARY

Logistics is at the core of modern society and essential to bringing food and goods to the heart of cities, where a majority of Europeans live. However, there are several challenges associated with transport efficiency in Europe and worldwide. Thus, significant changes are needed in supply chain operations, especially on the last-mile logistics chain. This lack of efficiency affects the economics of logistics and its externalities on the urban tissue, with last-mile logistics representing 30% of the total emissions of logistics transportation.

The DECARBOMILE project is a comprehensive initiative aimed to minimize the negative impact of logistics by creating a more sustainable and environmentally friendly transportation system. The introduction of the project's innovative solutions will encourage the use of alternative fuels and technologies, with the ultimate goal of reducing greenhouse gas emissions and combating climate change.

Gathering 31 partners from 10 different countries, DECARBOMILE aims to trigger an unprecedented improvement of the green last-mile logistics in Europe. To reach that goal, DECARBOMILE relies on a strong experience of decarbonising urban logistics through European initiatives such as CIVITAS. Partners will build upon all previous results to develop improved delivery methods, tools and methodologies, and implement them across Europe. The solutions developed in DECARBOMILE will demonstrate the full potential of decarbonised last-mile logistics.

Thus, the **main objective of DECARBOMILE** is to develop tailored solutions and demonstrate the full potential of decarbonised last-mile logistics in four LL – Hamburg (Germany), Logroño (Spain), Nantes (France) and Istanbul (Turkey), and four satellites – Getafe (Spain), Tallinn (Estonia), Ghent (Belgium), Sarajevo (Bosnia and Herzegovina), in line with their technical, environmental and local socio-economic contexts.

The main objective is expressed in the six objectives listed below:

O1: Develop interoperable and multimodal vehicles for Last-mile Delivery (LMD) in urban contexts.

DECARBOMILE will work on logistics vehicle optimisation, especially regarding cargo-bikes and testing their combinations with transportation modes alternative to the road and conventional trucks (river, rail). Core focus will be: 1) the interoperability between solutions and adaptability to the local contexts on the hardware side and 2) innovative software enabling optimised vehicle loading and routing.

O2: Enhance collaborations between local and global stakeholders for long term successful uptake

DECARBOMILE will put a strong emphasis on the collaboration between local stakeholders and focus on piloting cooperation with private logistics operators and local businesses. DECARBOMILE will also collaborate with the CIVITAS and other relevant initiatives, in which several partners from the consortium are involved. DECARBOMILE will develop an urban consolidation model, allowing new functionalities to be tested and join the Digital hub for collaborative last-mile logistics.

O3: Optimise last-mile logistics planning and integration in the urban fabric by developing innovative ICT tools

The project will focus on the development of several digital tools to ensure optimised last-mile logistics, reducing the transportation time and associated traffic and GHG emissions, as well as costs. This will include the development of new tracking, tracing and monitoring tools to optimise the control over the flow of goods, network design and delivery optimisation. Emphasis will be put on the

integrated approach of these tools and the development of a collaboration layer to assess their impact on the environmental and economic performance.

O4: Develop innovative tailored BMs integrating social innovations for a strong market uptake

A key aspect of the project is to develop economic sustainability of the proposed solutions. DECARBOMILE will thus establish new models for addressing governance and management of logistics operations. This will include the integration of social innovations to ensure a larger acceptance of the solutions in the demonstration cities and for their replication across Europe.

O5: Demonstrate full potential green last-mile delivery in 4 LL and investigate replication in 4 satellites

At the core of the demonstration, the four LL will host full potential pilots. In addition, the four satellites will work on the pre-testing of specific developed solutions before their full-scale implementation in the LL, and on their adaptability and replicability to particular contexts.

O6: Integrate the LML concepts in the local public policy plans and European regulations

Last-mile logistics faces specific regulatory and social contexts potentially impacting its implementation and limiting its spread. DECARBOMILE will propose recommendations on the implementation and improvements of last-mile delivery. To ensure a strong uptake of zero-emission efficient last-mile solutions, DECARBOMILE will integrate urban strategy co-creation, including traffic regulation, urban planning, and space management, with citizens in collaboration with local policymakers.

OBJECTIVE AND EXECUTIVE SUMMARY

The primary goal of WP2 is to ensure stakeholder engagement in the development of technologies, innovations, and solutions tailored to local needs. Achieving this requires the active participation of stakeholders, which is crucial for securing their commitment to the project. To this end, WP2 focuses on implementing participatory mechanisms that effectively involve relevant actors in specific local areas. This is accomplished through agile co-creation methodologies and activities.

The purpose of Deliverable D2.2, titled *"Co-Creation Methodologies for Stakeholders and Business Development,"* is twofold:

1. To provide detailed insights into the methodologies and tools used to implement participatory mechanisms that effectively engage local stakeholders. This engagement is aimed at identifying relevant services and developing coherent BMs.
2. To report on the work conducted under tasks 2.1, 2.3, and 2.5 over the course of the project's first 24 months.

Correlation between D2.1 Implementation Roadmap and D2.2 Co-Creation methodologies

Deliverable D2.1 *"Implementation Roadmap"* gives an in-depth insight into the Use-case definitions and their implementation strategy including a presentation of the following work results:

1. Stakeholder mapping
2. use-case definitions
3. Implementation roadmap
4. ICT Tools integration

D2.2 provides an insight into the work process behind these results showcasing methodology including, tools and Ws conducted. It details the engagement strategy used to identify and co-create the use-case definitions and implementation strategy presented in Deliverable D2.1. This deliverable is intended to illustrate the work process rather than present the final results of WP2. Consequently, some results in D2.2 may refer to earlier versions of the use-cases or represent a previous status of work within WP2, which may not fully align with the finalized results showcased in D2.1.

This report covers the activities and results from various WP2 tasks as described in the following:

Task 2.1: Identification and involvement of local stakeholders

To ensure a proper design, development, and implementation of the demonstrations, WP2 started with two consecutive tasks on the identification and engagement of the LL' local stakeholders linked to last mile logistics. The two subtasks were overseen by CBS.

Subtask 2.1.1: Co-mapping of the local stakeholders

CBS oversaw the creation of local stakeholders' maps (D2.1) in all the project's LL. The LL performed stakeholders' analysis in their metropolitan area and mobility economy ecosystems. This was completed in parallel with T1.2 and integrated the results from the strategic flows and expected targets of each demonstration site.

Subtask 2.1.2: Recruitment of the local stakeholders

Based on the previous subtask's co-mapping, the LL partners involved the stakeholders identified in D2.1 to proceed with the following interaction and participatory approach. The LL took charge of managing the interactions with their respective cities' stakeholders. IT supervised the process to ensure that all the relevant stakeholders were recruited and to update the mappings of local stakeholders with the successfully recruited actors. The concrete action line of the stakeholders'

interaction in the DECARBOMILE collaborative process was defined by CBS and IT and presented to the stakeholders. The map of local stakeholders, actions and targets is continuously updated with the first group of selected actors and updated periodically with relevant contributions.

Task 2.3: Empowering and engaging local businesses towards delivery system chains

This task, led by CBS, started with co-creation and engagement activities and initiatives in the pilot areas, and then an assessment of obstacles and enablers for business generation and growth was conducted. Co-creation WSs were facilitated with the local partners and followed up through local iterations with logistics providers, city representatives, local businesses, and other stakeholders, where organisations were asked to identify obstacles and opportunities for **local business development** related to delivery and mobility in their pilot areas. Through the WSs, a value proposition assessment was carried out, which included the analysis of the socio-economic context in the pilot regions, assets and obstacles that could empower or restrict businesses from achieving success as well as enabling aspects that might create growth opportunities for new networks and processes that can positively impact the mobility and transportation of goods and facilitate the creation of related businesses in the pilot areas.

Task 2.5: Validation of the suitability of BM with local stakeholders

In connection with WP5, this task focused on the validation of the BMs developed with and for each LL and their local stakeholders. Therefore, CBS organized interviews and WSs to elaborate on the developed models and confirm stakeholders' interest in the identified business. To finalise the process, Hamburg is developing a framework to assess the suitability of the BMs based on the identified Key Performance Indicators and objectives to be met.

At the time of writing this deliverable (07/2024), the validation and iteration process is still ongoing given the delay within the use-case definition process encountered in some of the LLs. First interviews are ongoing with the local stakeholders to validate the BMs and identify interest in long term partnerships and WSs are planned for October 2024. A comprehensive insight into the results of T2.5 will be included into D5.1 (due in M30 of the project, 02/2025).

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More information on the project can be found at <https://www.decarbomile.eu>

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GLOSSARY

Abbreviation	Description
BM	BM
CM	Consortium Meeting
HAM	Hamburg LL
ICT	Information and Communication Technology
IMM	Istanbul Metropolitan Municipality
LEZ	Low Emission Zone
LGN	Logroño LL
LL	LL
NANTES	Nantes LL
SC	SC
UCC	Urban Consolidation Centre
WP	Work Package
WS	WS

DECARBOMILE PARTNERS

Acronym	Organisation Name
IT	Interface Transport
HAM	Free Hanseatic City of Hamburg
ITS	ITS World Congress
LGN	Logroño Municipality
NANTES	Nantes Municipality
IMM	Istanbul Metropolitan Municipality
TLN	Tallinn Municipality
GETAFE	Getafe Municipality
GISA	Development agency of Getafe
SARA	Sarajevo Canton
TUHH	Technical University of Hamburg
CBS	Copenhagen Business School
CAPIT	Capillar IT
TMTX	Transmetrics
GGI	Genegis GI
NGS	New Generation Sensors
ITA	Ita Innova
IMTA	Institut Mines Télécom Atlantique
SCU	Sivas Cumhuriyet University
MIGROS	Migros
TRI	Les Triporteurs Nantais
OHB	Training Centre for Wood and Construction
INT	Intelligent Parking
LIHH	Logistics Initiative Hamburg
UBC	Union of Baltic Cities
CARA	CARA European Cluster for mobility solutions
ID4MOBILITY	ID4MOBILITY
FLEX	Fleximodal
RCXB	Red de Ciudades por la Bicicleta
EQY	Euroquality
DHL	Deutsche Post DHL

1 Introduction

In the evolving landscape of urban logistics, developing sustainable and innovative solutions is crucial for addressing the challenges of last-mile delivery. Central to this endeavour is the active participation of stakeholders, whose insights and support are vital for co-creating technologies and BMs that are not only technically feasible but also socially acceptable and economically viable. These stakeholders—ranging from local authorities and businesses to community organizations and citizens—ensure that solutions are tailored to meet local needs and realities.

Deliverable D2.2, *Co-Creation Methodologies for Stakeholders and Business Development*, provides a comprehensive guide to the methodologies used during WP2 in DECARBOMILE to foster meaningful stakeholder engagement across diverse urban contexts of the LL and SCs. By employing agile co-creation methodologies, the project aimed to create a collaborative environment where stakeholders could actively contribute to the definition and refinement of use cases, ensuring that they are both sustainable and aligned with the specific characteristics of each pilot region.

Four different WSs are documented, offering a detailed examination of the objectives, tools, and methodologies employed, as well as the outcomes achieved. These WSs did not only facilitate the co-creation or identification of key challenges and opportunities within each local context but also played a crucial role in validating and refining the proposed use-cases and BMs. The results underscore the importance of approaching stakeholder engagement as a dynamic and continuous process.

In essence, Deliverable D2.2 offers valuable insights into the co-creation process, highlighting the lessons learned and best practices that can be applied to future initiatives. It emphasizes the importance of flexibility, adaptability, and continuous stakeholder involvement in achieving sustainable urban logistics solutions that can be replicated and scaled across different regions.

2 Literature Review

Stakeholder Engagement in Urban Mobility and Last-Mile Logistics: A literature review

Stakeholder engagement in the logistics field has gathered attention due to its pivotal role in shaping organizational strategies and enhancing operational efficiency. In the context of DECARBOMILE, the participation of diverse stakeholder groups is essential for its success. This literature review delves into the concept and significance of stakeholder engagement, emphasizing its role in fostering multistakeholder collaboration and driving behavioural change towards sustainable urban logistics solutions.

Stakeholder engagement in DECARBOMILE extends beyond mere consultation; it involves active involvement and dialogue with individuals and groups impacted by the project's activities. Freeman (1984) highlighted that stakeholder engagement encompasses a range of interactions, from consultation and communication to collaboration and partnership, aimed at addressing stakeholder needs and expectations. In the context of urban logistics collaboration, voluntary stakeholder participation is crucial (Touboulis & Walker, 2015), as it facilitates information sharing, risk mitigation, and the development of innovative solutions.

In the dynamic landscape of the logistics industry, co-creation and stakeholder engagement emerge as key drivers of innovation and sustainability. Embracing the collaborative ethos of co-creation, logistics organisations can actively involve a diverse array of stakeholders in shaping solutions that address the complex challenges of urban mobility and last-mile logistics. Voorberg et al. (2015) underscore the importance of co-creation in fostering innovation and value creation, while Hatch (2016) stresses the significance of building trust and relationships through collaborative brand governance. By embracing co-creation principles outlined by Degnegard (2019) and Sanders & Stappers (2020), logistics firms can harness collective expertise and creativity, leading to the development of sustainable practices that resonate with societal and environmental goals.

Engaging diverse stakeholders in collaborative processes is crucial yet challenging, particularly in integrating environmental information into decision-making (Sitas et al., 2016). Engaging stakeholders such as suppliers, customers, regulatory bodies, and local communities fosters collaboration and coordination across the logistics network (Touboulis & Walker, 2015). Moreover, the nature and extent of stakeholder engagement vary across various research teams and institutional contexts (Reed, 2026), emphasizing the need for tailored approaches. By incorporating diverse stakeholder perspectives into decision-making processes, logistics organisations can make more informed and effective strategic choices (Seuring & Muller, 2008). It is important to remember that stakeholder engagement can provide insights into market trends, environmental concerns, and social expectations, as mentioned, enabling logistics firms to align their operations with broader societal goals.

Additionally, effective stakeholder engagement can enhance a logistics firm's reputation and brand image (Pagell & Wu, 2009). By demonstrating a commitment to transparency, sustainability, and social responsibility, organisations can build trust and credibility among stakeholders, thereby strengthening their competitive position in the market.

Despite its importance, stakeholder engagement in the logistics field is not without challenges. Common barriers include conflicting interests, resource constraints, and cultural differences (Christopher & Peck, 2004). In public-private partnership projects, capturing stakeholder inputs is crucial for addressing stakeholder opposition (El-Gohary et al., 2006). Additionally, sustainable city logistics projects often encounter complexities due to stakeholders' diverse backgrounds and interests (Lehmacher, 2017). These complexities can result in challenges such as aligning stakeholder objectives, managing differing expectations, and overcoming resistance to change (Lehmacher, 2017; Reed, 2016).

By identifying and addressing these complexities early on in a project, targeted strategies can be developed to foster effective collaboration (Lehmacher, 2017; Reed, 2016). Such strategies can include stakeholder mapping and analysis, regular communications, communication of benefits and negative impacts, clear governance structures and evaluations of alternative solutions (Lehmacher, 2017; Reed, 2016; Christopher & Peck, 2004). Moreover, providing stakeholders with opportunities to voice their opinions, respecting all perspectives, and enabling stakeholders to influence actions are critical (Macdonald et al., 2021). Digital platforms and technologies are also increasingly being used to facilitate stakeholder engagement, making it more inclusive and efficient (Nguyen et al., 2019).

Overall, stakeholder engagement is instrumental in driving sustainable solutions in urban mobility and last-mile logistics. By fostering multistakeholder collaboration, improving decision-making, and addressing diverse interests, projects like DECARBOMILE can achieve their goals effectively. Effective stakeholder engagement also enhances organisational reputation, driving competitive advantage and long-term value creation in the logistics sector.

3 Methodologies

The stakeholder engagement process has been developed by CBS based on existing literature and other project experiences. It is following the structure below:

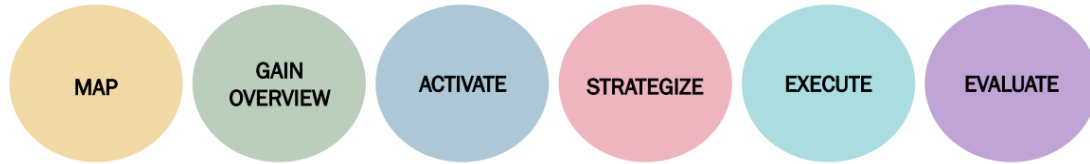


Figure 1: Stakeholder Management Process developed by CBS

This initial structure was then broken down into the actual activities, which were shared with the project partners to keep an overview and inform the process throughout:

Mapping of Stakeholders

In the initial phase of the stakeholder engagement process, stakeholders were systematically mapped based on the typologies outlined in the Grant Agreement. Important stakeholders from each LL were identified, clustered in an Excel sheet, and ranked according to their significance, potential engagement, interest and role in the project. The mapping of stakeholders is further detailed in D2.1.

Gain Overview

Following the mapping exercise, a comprehensive analysis of stakeholders was conducted. Stakeholders were categorized based on types, their importance was assessed, and their reach was determined. Results were organized into a spreadsheet and visually represented for clarity. Subsequently, each LL started to reach out to the identified stakeholders and started to identify potential use-cases. Finally, the groundwork for the Kick-off Meetings with external stakeholders was laid in each region.

Activate (KOM & WS1)

The activation phase focused on understanding the local context within each LL through Kick-off Meetings (KOM) and WSs (WS1). This phase aimed to identify challenges and needs specific to each stakeholder, enabling the prioritization of efforts in each region, setting the stage for a more targeted approach and use case definition based on local assets.

Strategize (WS1, WS2 & WS3)

Moving into the strategize phase, collaboration with stakeholders in WSs (WS1 & WS2) occurred to co-design action plans and engagement maps for each identified use-case, to tackle the specific challenges identified and based on the agency of the stakeholders involved locally. During this process, identification of stakeholders interested in specific activities and assessment of their potential contributions took place. This phase laid the foundation for executing plans and realizing the goals outlined in the engagement process.

Execute (use-case Definitions)

With a well-defined action plan in place, the development of the use-case implementation definitions began. This involved identification of ICT tools and equipment to be used, specification of the hub locations and its architectural specificities, and stakeholders involved and their responsibilities.

Review and Update

Periodically, the action plan was revisited and updated in collaboration with stakeholders. Through continuous feedback and engagement, flexibility was maintained in adapting to evolving circumstances. This iterative process allowed for refinement and optimization based on the dynamic nature of stakeholder interactions, integrating new actors, tackling upcoming prioritised challenges, and linking with specific actions to implement.

Evaluate

After every WS, results were diligently reported, highlighting key insights and milestones achieved. Additionally, hindering and supporting factors within the local context were systematically mapped, providing valuable input for future decision-making and allowed to strategically adjust the use cases and related action accordingly.

(vgl. Greenwood, 2007; Ray & Miller, 2017; Gould, 2012; Lazzi et. Al 2020; Bourne, 2016; Li & Feng, 2021; Bruce-Iri & Shelley, 2010; Stocker, Arruda & Mascena, 2018)

4 KEY CONCEPTS

One of the key concepts utilized for the stakeholder engagement in DECARBOMILE is the concept of **co-creation**, which revolves around fostering collaborative partnerships and active involvement of stakeholders within the decision-making as well as the solution-building process. Co-creation emphasizes a departure from traditional top-down approaches, encouraging an inclusive environment where stakeholders contribute their insights, expertise, and perspectives. This collaborative process acknowledges that stakeholders bring unique knowledge and experiences to the table, making them essential co-creators of value. By engaging stakeholders in WSS, brainstorming sessions, and participatory activities, one does not only foster effective solutions but also cultivates a sense of ownership and commitment among stakeholders. Co-creation in stakeholder engagement is about recognizing the mutual benefits derived from shared responsibility and jointly shaping outcomes to address the diverse needs and aspirations of all involved parties. Additionally, co-creation aims to identify key-challenges and relevant topics for each stakeholder to develop specific strategies and indicators to act upon to achieve these defined objectives.

Additionally, the engagement was focused on the **co-production** of tangible results. This was achieved by going beyond the generation of ideas and extending it with the collaborative execution of plans, with stakeholders playing a vital role in bringing solutions to live, highlighting the practical and operational dimensions of stakeholder involvement in the overall process.

5 STAKEHOLDER ENGAGEMENT WSS

Within WP2, following Kick-off meetings, 5 different WSs were developed to cover the objectives of each task. The pictures below visualize the individual WSs including their objectives and the task they relate to.

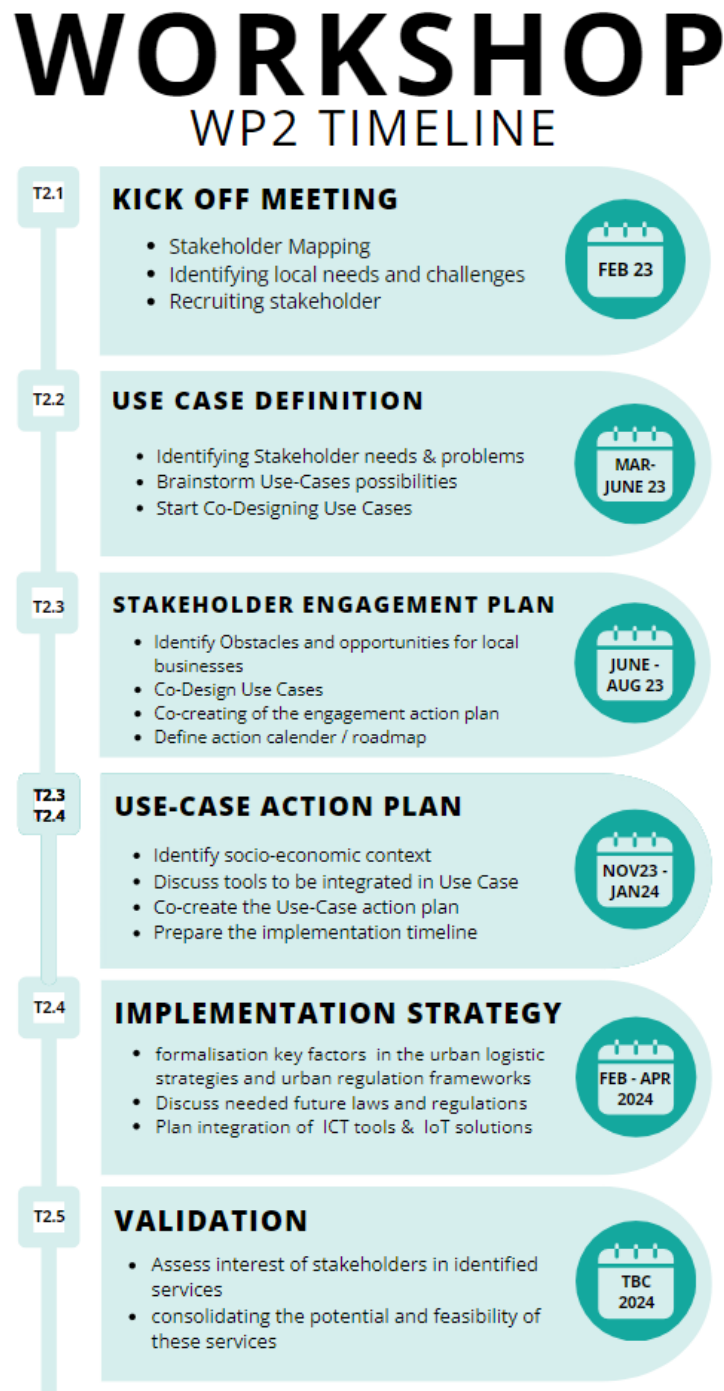


Figure 2: WS Timeline of WP2 developed by IT and NANTES

In summary 30 WSs were held in total, in all LL combined. WS 5 targeting the stakeholder validation of the BMs is planned in October 2024.

LL	Kick-Off Meetings		
Istanbul	25th January 2023 – 1pm		
Logroño	23rd February 2023 - 8.45am		
Nantes	1st March 2023 - 9am		
Hamburg	20th February 2023 - 1pm		
LL	Internal WS2	Internal WS2 Follow Up	External WS2
Istanbul	17.05.2023 3pm	26.05.2023 9.30am	5-7th June 2023
Logroño	24.05.2023 10am	30.05.2023 10am	9th June 2023
Nantes	01.06.2023 3pm	19.06.2023 3pm	21st June 2023
Hamburg	01.06.2023 9.30am	27.06.2023 10am	28th October 2023
LL	Reaching unreachable Stakeholder WS		
Istanbul	Consortium Meeting 2 in Hamburg 29.09.2023		
Logroño			
Nantes			
Hamburg			
LL	Internal WS3	External WS3	
Istanbul	23.10.2023 1-3pm	18. February 2024 – online	
Logroño		08. March 2024 - online	
Nantes		02. November 2023	
Hamburg		02. November 2023 (On-sight)	
LL	Internal WS4	External WS4	
Istanbul	06.02.2024	06.02.2024	
Logroño	06.03.2024	25.04.2024	
Nantes	23.02.2024	07.06.2024	
Hamburg	08.02.2024	08.02.2024	

Table 1: Overview of WS Dates

Finally, each LL was able to reach its target of numbers of stakeholders to engage in the use-case definition process (see bottom line of the table below).

Type of Stakeholder	Istanbul	Nantes	Hamburg	Logroño
Local authorities & decision-makers	Kadıköy Municipality Istanbul Enerji Climate Change representatives	FFB Nantes Metropole, river department CAPEB Association des commerçants de la Route de Vannes CCI (Chamber of Commerce and Industry)	Ministry for Environment Hamburg Port Authority Monument Protection Office Hamburg Ministry of Environment Climate, Energy and Agriculture in charge of Alster waterways Wasserschutzpolizei Ministry of Urban Development and Housing Bezirksamt Mitte BUKEA	Association of Logrono historical centre Government of La Rioja (Rural Development) Government of La Rioja (Innovation)
Logistics and Transport	Paket Taxi Kargopark İletmen DHL Logistic Aras Kargo Hepsijet	Atlantique Boissons Pomona Terre Azur Transport Heppner DB Schenker SEMITAN Europcar Transports urgents La Poste	Agency for Roads, Bridges and Waterways Verkehrsübungsplatz DPDHL Gustav Seeland GmbH	DHL Dacysir (glass bottle reuse) Jimenez Tagus (oil recycle)
(Local) business & consumers	Hepsiburada E-Commerce Companies	Tout en Vélo Boite à Vélo Coopcycle Naofood/Les coursiers Nantais SuperU Unacod Plein Centre Transec SEMMIN	Otto Wulf BID GmbH BID Neuer Wall	RIOFARCO Representative of "100 SHOPS WALK" TSYS San Blas Market Mercadona (La Rioja Supermarkt Association) CPAER (Organic Agricultural Production Council of La Rioja) Ciclo XXI (sale and repair of bicycles) Nuts Ángel Rosalinda eggs Jimenez Tagus (oil recycle)
Universities & Research	Sivas Cumhuriyet University		Fraunhofer Institute	Chair of Commerce Roja University International University of La Rioja
Total Number	16	24	20	18
KPI to be Reached	10	20	10	15

Table 2: Overview of Stakeholders engaged clustered in Stakeholder Groups

WS Structure and preparation Process

Each WS followed the same process. The first step was the identification of the WS objectives. This considered the objectives described and decided in the Grant Agreement as well as the individual needs and work status of each LL. While in the beginning all LL were equal within their developments, throughout the process there were significant differences that needed to be considered.

Based on the objectives, specific WS tools and activities were identified and developed, and the agenda for the WS was created. Both were written into the WS guidelines which later served as orientation and guidance for the LL within the WS process.

Besides the guidelines, the LL were provided with an E-Mail template for the invitation of the external stakeholders, a draft of attendance list for the day of the WS and the reporting template to document the WS results. If needed, additional templates were provided for the different WS activities.

Every external WS was prepared within an internal WS led by CBS (addressed to consortium project partners). These WSs served the purpose of (1) introducing and explaining the WS tools, (2) practising the use of the tools and (3) preparing a baseline of information for the activities to be used as a conversation starter within the WS. Additionally, these internal WSs were used to clarify open questions and make final adjustments to the material.

After the external WS with external stakeholders involved, the LL filled in the reporting template and the results were analysed and presented by CBS.

Challenges experienced

Noticeable differences within the local context and stakeholder engagement of each LL led to varied challenges and requirements from the WS.

For instance, in Hamburg, the number of involved stakeholders was comparatively low since most stakeholders are associations representing multiple stakeholders at once. These associations could act as spokespersons, making communication more effective. Conversely, in Istanbul, many stakeholders needed to be involved because the associations are not well-organized and lack the resources to have local stakeholders' spokespersons. This resulted in a larger workload and more time needed on Istanbul's side to organize WS and coordinate stakeholders.

Additionally, there is a different local perception of urgency and need for change within the system, which should be analysed at the beginning of the engagement process. This is crucial as it requires time to convince stakeholders of the benefits of changing and investing in sustainability.

The timeframes needed to define the use-cases also varied, creating difficulties in aligning a common timeline as the project progressed. In Hamburg, the use-case was clear and set from the beginning, requiring only a minimal number of stakeholders for the definition, allowing the LL to move quickly within the engagement process. In contrast, Logroño and Nantes were held back due to political situations (elections) and faced more challenges during overall engagement and stakeholder commitment, necessitating more time and repeated activities due to changes.

Stakeholder interest and willingness to participate, engage, and commit to the project also varied. Some stakeholders had their own solutions already applied and did not see the reason to change anything. Consolidating competing stakeholders in the open market proved difficult, particularly concerning data sharing where there were significant concerns about data security and privacy.

Finally, stakeholder commitment was highly bound to the economic viability, and stakeholders were demanding proof about added values and economic viability of the Use-cases. In Nantes, especially, stakeholders withheld the right to withdraw from the project if economic viability was not demonstrated. The lack of best-case examples directly available to address these issues further compounded the challenge.

Learnings and Take-Aways

1. The use of the platform MIRO during the engagement process to co-create the action and engagement roadmap proved effective for online meetings. However, it was not the best tool to present results during external meetings held in person, which is why it has been transitioned into a word Action Calendar and an excel Action Plan.
2. Feedback sessions after each WS were identified as valuable and necessary to adjust the WS tools and structure to the local needs of each LL. Additionally, co-creating WS tools and preparing material collaboratively during internal WSs, ensured the successful usage of the tools during the external WSs.
3. Flexibility with the use of WSs and bilateral meetings is essential. In some contexts, smaller meetings were proven to be more productive.
4. Finally, there are many benefits from exchanges between stakeholders across the LLs, not only for problem-solving and experience sharing but also to demonstrate successful cases. Implementing more open and living lab overlapping WS and discussion can therefore be effective.

Key Takeaways for the organization of the engagement process:

1. Make sure that the tools utilized can be used throughout the whole project and throughout different WP and tasks
2. Optimize the workflow by co-creating a documentation strategy with the LLs in the beginning
3. Hold feedback meetings after the WS and/or during the preparation of the next
4. Adapt the strategy to the local context and work status of the LL
5. Be as precise as possible with communicating the WS objectives

Stakeholder Engagement Process Survey

In the context of stakeholder engagement, CBS conducted a stakeholder engagement process survey. The survey aimed at gathering feedback from organisers of stakeholder engagement WS in the project's four LLs, as well as from participants. This survey was a follow-up one to the Slido quiz during the CM in October 2023. The Qualtrics survey, exclusively aimed at internal partners, gathered a total of 20 responses, with 7 fully completing it. The responses were distributed as follows: 3 from Logroño, 2 from Istanbul, 1 from Hamburg, and 1 from Nantes.

Using a Likert scale (Strongly Agree – Strongly Disagree), respondents rated various aspects of the stakeholder engagement process, including the overall process and specific tools like Relevance Ranking (Kick-off Meeting), Actions Frequency (WS2), Roadmap & Success Criteria (WS2), and In&Out Activity (WS2). Additionally, participants rated the ease of following the provided materials and tools, along with the level of support from CBS.

More specifically, the overall stakeholder engagement process and its guidelines were easy to follow, as reflected in the “strongly agree” rating. All LLs rated their stakeholder engagement process as “satisfactory” to “very satisfactory”. However, there is room for improvement in providing sufficient strategies to address issues experienced during the engagement, with 5 out of 7 of the respondents indicating they only “somewhat agree” that adequate strategies were provided. Suggested enhancements for the organisational process include specifying objectives early, utilizing bilateral meetings once use cases are defined, and focusing more on stakeholder needs.

Challenges in coordinating and communicating with stakeholders were highlighted, including the difficulty of involving external stakeholders actively, managing timelines, and synchronizing engagement with multiple important stakeholders. Specific feedback noted the complexity of the waterway use case (Hamburg), which felt stagnant at times. Additional challenges included ensuring effective communication between stakeholders, political changes, lengthy periods of stakeholder disengagement, and overcoming resistance to new ideas of approaches, with 4 strongly agreeing and 1 somewhat agreeing on the latter issue.

Participants suggested that the engagement process should have focused more on the BMs from the beginning and on technical tools. Despite these challenges, 6 out of 7 respondents agreed that the WS tools provided were supportive in achieving the objectives during the WSs.

Overall, the results indicated satisfaction among respondents, with most finding the process and the tools easy to follow and use, and insightful in understanding stakeholder involvement, challenges, and needs.

The survey findings will serve as valuable internal feedback for CBS to enhance or improve its overall engagement process, if necessary.

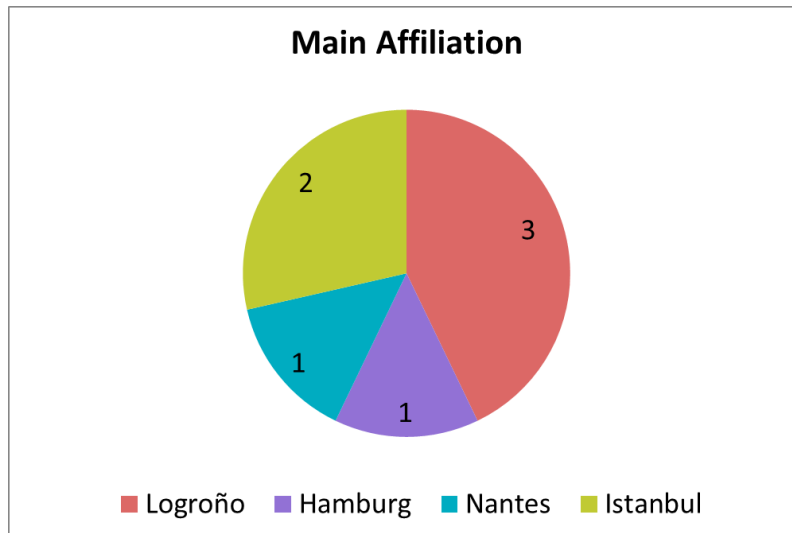


Figure 3: Overview of Survey Participants per LL

5.1 EXTERNAL STAKEHOLDERS KICK-OFF MEETING (WS1)

The kick-off meetings were held in person in each of the LL locations, and had the participation of CBS, TUHH and IT, together with the local partners and the external stakeholders. After presenting the project, the stakeholders brainstormed on key issues relating to the needs and challenges regarding Last Mile Logistics in their local contexts and ranked them according to their importance.

Kick Off Meeting Objectives

1. **Increase Project Awareness:** Enhance project visibility among local stakeholders, including businesses, academia, citizens, and public authorities, thereby contributing to the overarching goals of the initiative.
2. **Define Last Mile Logistics Challenges:** Identify and articulate six key needs and challenges specific to last mile logistics within the local context, leveraging insights gained from the LL's use cases.
3. **Assess Stakeholder Interest and Participation:** Evaluate the level of interest and engagement from stakeholders interested in participating in the activities and use cases of the LL/satellite city, providing a comprehensive understanding of stakeholder involvement.
4. **Formulate Stakeholder Engagement Plan:** Develop a strategic plan for stakeholder engagement, outlining the next steps to cultivate meaningful collaborations and partnerships within the LL/satellite city framework.

LL	Date & Time	Number of attendees	Stakeholder present
Istanbul	25.01.2023 13:00	111	Local Municipality Representatives, Universities, Logistics Operators, NGOs, Associations, E-Commerce Companies, Charging Station Representatives, Courier Companies, Climate Change Representatives
Hamburg	20.02.2023 15:00	18	Fraunhofer CML, BUKEA, Otto Wulf BID GmbH, DPDHL, HPA Hamburg Port Authority, Gustav Seeland GmbH
Logroño	23.02.2023 08:45	25	Information missing in reporting template
Nantes	01.03.2023 09:00	27	Representant of Craftsmen, Representants of construction craftsmen, BtoB transport companies, Courier company, Representant of shopkeepers, Cyclo logisticians, River operator

Table 3: Kick-Off Meeting Overview

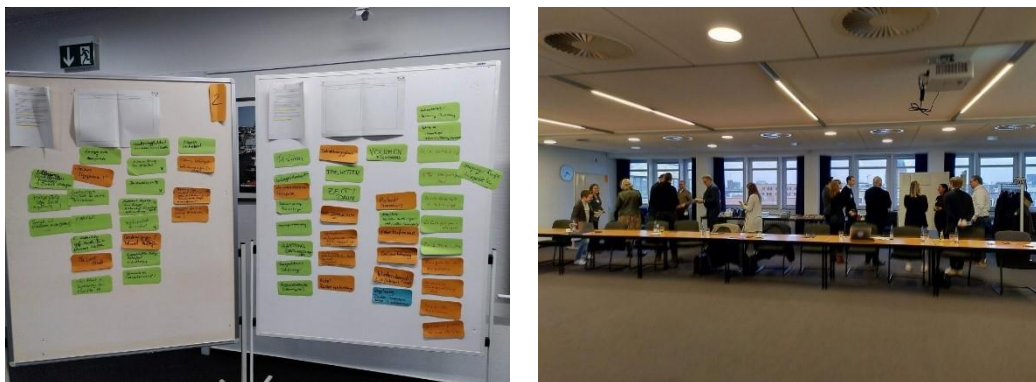


Figure 4: KoM Hamburg – Needs & Challenges Activity



Figure 5: KoM Istanbul – Introduction Activity

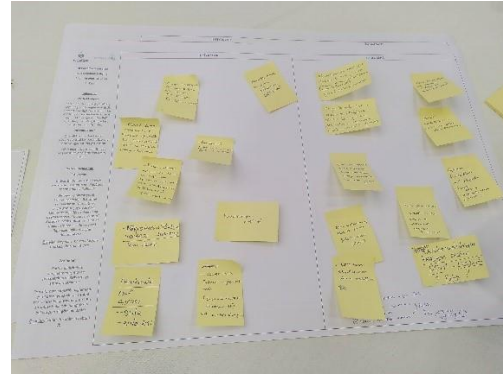


Figure 6: KoM Logroño - Needs & Challenges Activity

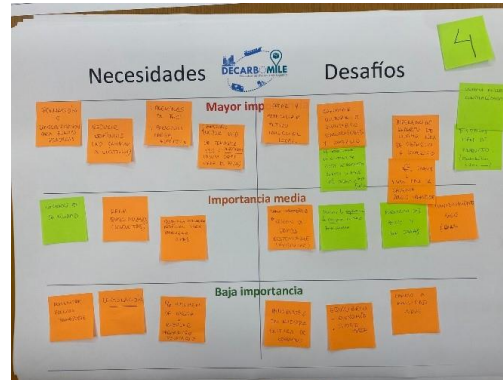


Figure 7: KoM Nantes

5.1.1 WS PREPARATION

To define a concrete action line of the stakeholder's interaction, CBS organised initial meetings with the project partners to better understand the scope of both their proposed use cases as well as the size of their respective local potential networks and who and how external stakeholders, both within and beyond their network, could be engaged.

These meetings followed a standard structure of preliminary use-case definitions, followed by a discussion of who would need to be involved in the co-creation of each use-case as per the project's purpose. Based on these initial meetings, CBS prepared the structure and templates for the kick-off WSs, while also organising meetings to train and explain each of the documents prepared, which were: the WS plan and the suggested activities, email template to be sent out to stakeholders (each LL translated into their language); consent form, and the WS reporting template. As WP2 tasks were very

much intertwined with each other, the recruitment approach and mapping of local stakeholders were also regularly updated, based on the different interactions LLs had with them, starting with the Kick-off meetings which were organized in T2.1, as anticipation of T2.2.

5.1.2 WS TOOLS & MATERIALS

Needs and Challenges is a brainstorm activity targeting to identify the needs and challenges related to last mile logistics within the local context. While the needs statements are about identifying the specific problem, the challenge statements are intended to provoke perspectives about them. During the first-round, participants are asked to note down their thoughts on sticky notes and to place them in the related section. Within the second round, all participants discuss and rank the identified topics from high to low relevance to identify the three key pressing needs and challenges.

Relevance Ranking
Rank the identified issues according to relevancy.

	Needs	Challenges
High Relevance		
Medium Relevance		
Low Relevance		

Figure 8: Needs & Challenges template

5.1.3 WS RESULTS

	Needs	Challenges
Environmental	- Green commitment - Reducing the number of combustion vehicles	Difficulties to apply measurements that protect the natural environment in the city
Social	- More stakeholder engagement - Cultural change, e.g., "jump in the car" - Convenience for consumer - Professionalise and modernise associations	- Smart locker adoption by the consumer - Raising awareness and understanding of sustainable consuming habits - Level of trust between client and consumer - Fear of change

	Awareness campaigns/ education for citizens: Sustainable consumption, Cycling, Promoting better consumption habits	Unite community /neighbourhoods
Operational	- Space / Site - Routes - Cargo boxes for transportation - Product classification - Improved urban transportation including parking, cycling, charging points, shuttle bus services - Adapting services to each sector, performing a needs analysis - Pedestrianisation	- Introducing smart lockers - Cargo delivery time optimisation - Bus lanes
Regulation	- Ensuring compliance of rules - Legislation to control distribution - Data controls - Who regulates the space/site?	- Advertisement - Required licences (Waterway) regulation - Occupational safety - Local government regulation to encourage UCC/MCC use
Economical	- Keeping costs competitive for the vendors - Fostering local commercial growth - Increase footfall	- Competition - Vehicle production & costs, including amortisation /depreciation - Local economy vs. Ecommerce - Local economy incentivisation - Delivery costs - Rewarding consumers who support the green transition
Technological	- Technical equipment, e.g., GPS - Data sharing	Data collection

Table 4: Needs & Challenges Results per LL

Based on the KOM, CBS defined a preliminary line of action for the overall external stakeholders collaboration process (see below), which was updated within the process of WP2 into a more detailed version (Figure 2: WS Timeline of WP2) to reflect the end result of all individual WS planned, including the objectives targeted, and how it would feed into the next WS. A GANT chart helped to keep track of the WSs across the different work packages.

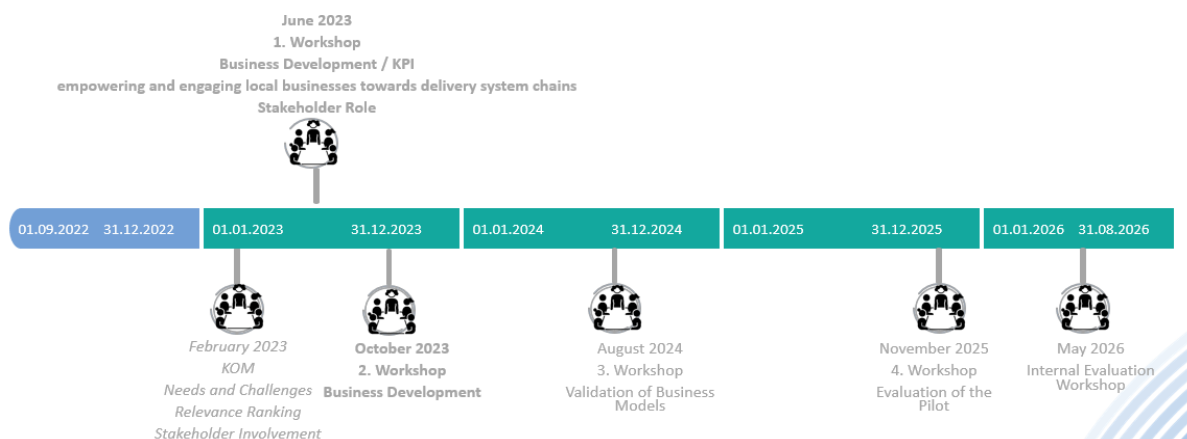


Figure 9: Preliminary WS-Timeline

5.2 STAKEHOLDERS ENGAGEMENT WS (WS2)

Following the kick-off meetings in early 2023, LL organised working sessions with stakeholders to further discuss and detail each use case. T2.2 (M7-M12) WSs aimed to (i) refine local needs and challenges identification building on the KOMs results, (ii) define the use cases (including potential interviews and field visits in each LL, and a summary of the type of needs / flows / logistic scheme / geographical perimeter for each use case - which are reported in D2.1). Partners involved in these activities, in addition to the LLs local partners, are: NANTES, UBC, IT, LIHH, TUHH, CAPIT, CBS, TMTX, GGI, and CARA.

In parallel, T2.3 (M10-M18) has identified obstacles and opportunities for local business development, based on each use case defined, through a set of two WSs in the LLs.

The goal is to implicate and engage stakeholders in each step of the co-creation process and throughout the implementation of the use cases. For this, it is important to identify **which stakeholders** want to be involved in **which use cases** (bearing in mind that some of them had already been pre-identified during the Kick off meetings held in each LL earlier), and **how** (identify the actions, level of engagement, roles, calendar, success criteria, etc.) based on the different interest each stakeholder might find in joining the use case.

WS2 Objectives

1. Identification of Stakeholder Needs & Challenges
2. Identification of an Action & Engagement timeline for each LL
 - a. Identify the actions (activities) that need to be done (meetings, WSs, planned communication, etc.)
 - b. Identify who will participate in the actions and their roles.
 - c. When and where should the actions take place
 - d. Identify the needs to be achieved with each action
3. Co-create the engagement action plan amongst the stakeholders for each local use case
4. Start co-designing the Uses Cases with locals' stakeholders

LL	Date & Time	Number of attendees	Stakeholder present
Istanbul	09.06.2023	31	Kadıköy Municipality, İstanbul Enerji, Paket Taxi, Kargopark, İletmen, DHL Logistic, Aras Kargo, Hepsijet, Hepsiburada, Sivas Cumhuriyet University,
Hamburg	28.08.2023	19	Ministry for Environment, Hamburg Port Authority, Agency for Roads, Bridges and Waterways, Fraunhofer Institute
Logroño	05.06.2023 and 07.06.2023	68	Association of Logrono historical centre, Government of La Rioja (Rural Development), Government of La Rioja (Innovation), DHL, Dacysir (glass bottle reuse), Jimenez Tagus (oil recycle), RIOFARCO, Representative of "100 SHOPS WALK", TSYS, San Blas Market, Mercadona (La Rioja Supermarkt Association), CPAER (Organic Agricultural Production Council of La Rioja), Ciclo XXI (sale and repair of bicycles), Nuts Ángel, Rosalinda eggs, Chair of Commerce Roja University, International University of La Rioja
Nantes	21.06.2023	26	FFB, Nantes Metropole river department, CAPEB, Association des commerçants de la Route de Vannes, Atlantique Boissons, Pomona Terre Azur, Transport Heppner, DB Schenker, SEMITAN, Tout en Vélo Boite à Vélo, Coopcycle

Table 5: WS 2 Overview

5.2.1 WS PREPARATION

To initiate the planning of activities for defining use-cases in each LL (LL), CBS conducted individual internal online WSs. These WSs primarily centred around identifying essential activities for co-creating action plans and engagement strategies with external stakeholders. The outcomes of these WSs involved an in-depth review of the identified actions, clustering them into thematic groups that would be addressed during subsequent stakeholder engagement WSs (WS). Furthermore, a communication guideline was established to ensure consistency in messaging. Subsequently, all clustered actions were strategically placed on a roadmap, providing a visual representation of the planned activities for the next six months. This roadmap serves as a guide for the sequential execution of steps in the stakeholder engagement process. During the internal follow up meeting, the designed roadmaps were presented and discussed with the LL.

LL	Internal WS2	Internal follow up WS2
Logroño	17.05.2023 3pm	26.05.2023 9.30am
Istanbul	24.05.2023 10am	30.05.2023 10am
Hamburg	01.06.2023 9.30am	27.06.2023 10am
Nantes	01.06.2023 3pm	19.06.2023 3pm

Table 6: WS2 Preparation Overview

For the internal WSs, the tool MIRO was utilized to allow stakeholders to co-create content during online meetings. After a short introduction, the members of the LL started to fill the table with notes about activities needed. To wrap up the WS, CBS discussed the results with the team to clarify open questions and review the work produced. The action frequency tables went through two iterations of co-creation. First, they were run internally with the LL project partners, and afterwards followed up and reiterated in the external WSs with the external stakeholders.

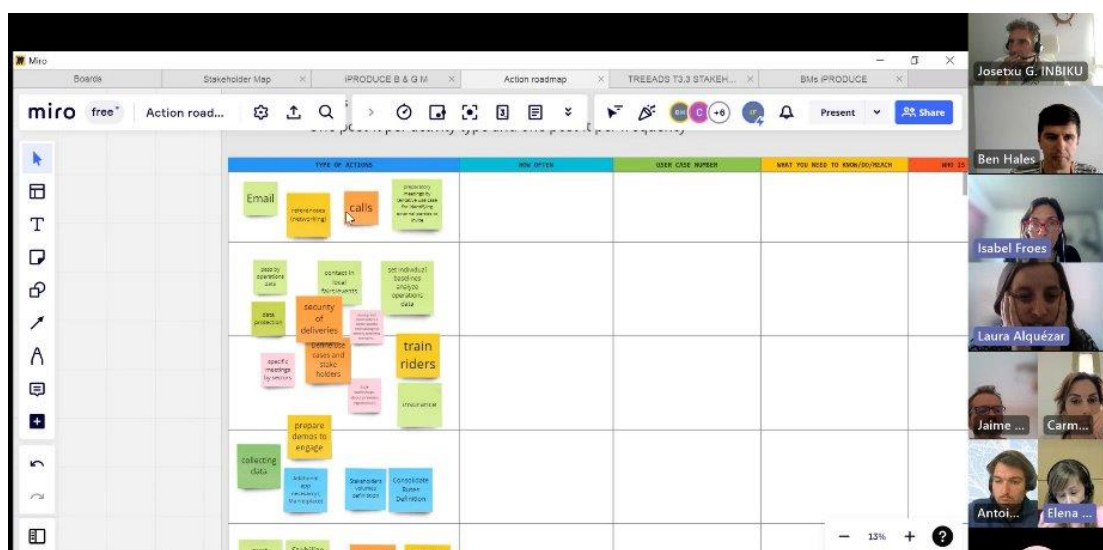


Figure 10: Internal WS with Logroño

5.2.2 WS TOOLS & MATERIAL

Action-Frequencies Tool

The action frequency table is a great tool to start the creation of an action plan, since it helps to identify all kinds of relevant topics that need to be covered to complete a task. For the DECARBOMILE WSs (both internal and external ones) the table covered 5 different key areas:

1. **Communication** referred to what type of communication needs to happen during the process to engage and inform stakeholders as well as increase the visibility of the project in the region.
2. **use-case Definition** focused on all activities needed to identify and finalise the description of the use-cases in each of the LL.
3. **Preparation of the Intervention** covers all aspects relevant for the months between the finalised use-case definition and the Implementation phase.
4. **Training** refers to the kinds of training and preparation required to take place before running the activities and interventions.
5. **Security** refers to the aspects regarding security, insurance, vandalism, types of lock and access to make sure the goods are safe and able to be distributed, including also the security of the personnel involved in the deliveries.

For each of the sections the partners brainstormed: type of actions needed, their frequencies and success criteria and responsibilities.

Actions - Frequency - Use Case - Information - Responsible				
One post-it per activity type / frequency / use case / piece of information / partner				
TYPE OF ACTION	HOW OFTEN	USE CASE NUMBER	WHAT YOU NEED TO KNOW/TO REACH	WHO IS TO BE RESPONSIBLE
Email	Every 2 weeks	All use cases	How the project is developing Intervention Dates	Municipality
?? webinar Online Meeting	Once a month	1 3		Partner 2 Partner 3
Workshop	Two weeks before the intervention	2		
Physical Meeting conference seminar	Once every 4 months			

Figure 11: Action-Frequency Template (MIRO)

Action & Engagement Roadmap

Following the comprehensive identification of all project activities, the roadmap tool was utilized to cluster them, creating a preliminary outline of tasks and a plan for engaging stakeholders. This initial draft served as a blueprint for organizing activities and coordinating efforts, facilitating effective communication and alignment among team members. By visually mapping out the project journey, the roadmap tool streamlines planning and ensures a structured approach to project execution. The roadmap covered a timeframe from the first Kick-off meeting to the planned start of the implementation phase.

This activity was initially run by CBS with each of the LL as single pilot's WSs, co-creating a baseline of the activities to be carried out and which aspects needed to be covered when. The baseline roadmap was then presented to the LL' external stakeholders in subsequent WSs and further co-developed with them to adjust to each local setting's expectations and requirements.

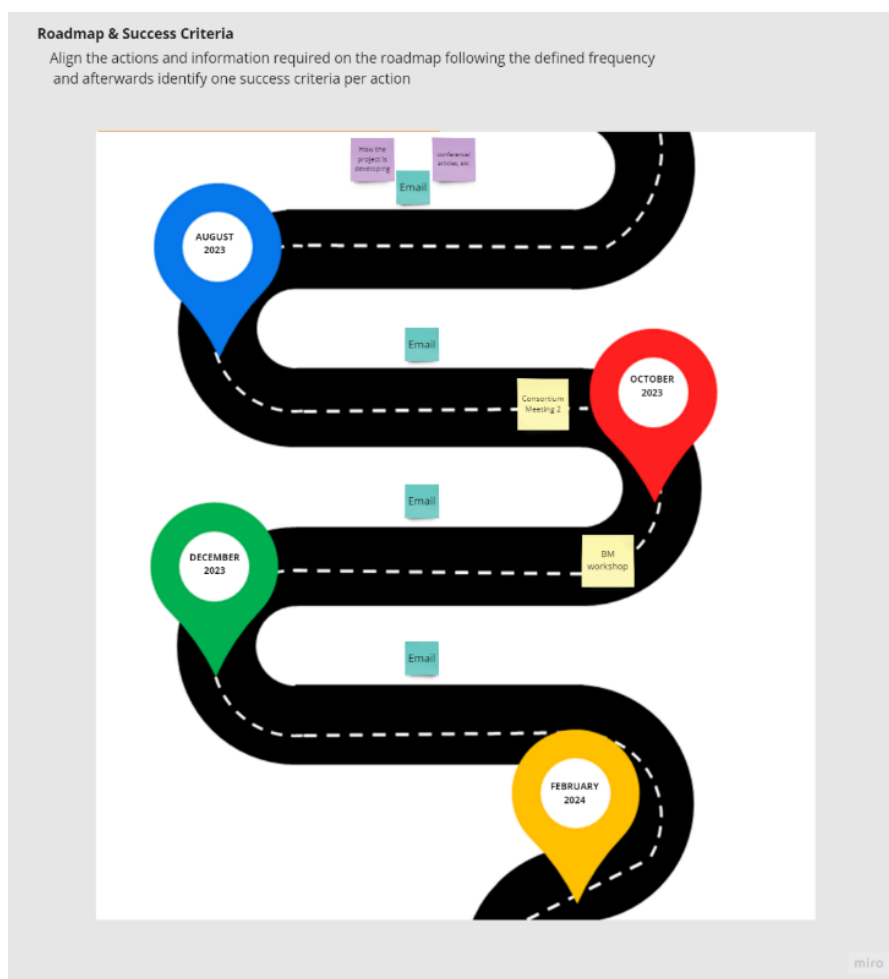


Figure 12: Roadmap Template (MIRO)

In-Out Activity

The IN-Out activity is targeted to outline the stakeholder's willingness to participate within the Use-cases. The activity is building upon the previously identified actions within the roadmap and gives participants the opportunity to visualize which of the activities they are willing and/or able to participate in throughout the project. After identifying and discussing relevant actions and activities, Stakeholders will use sticky notes to note down and place activities either in IN meaning they can contribute or in OUT meaning that they will not be able to contribute. This tool helped to formulate a first informal agreement of responsibilities.

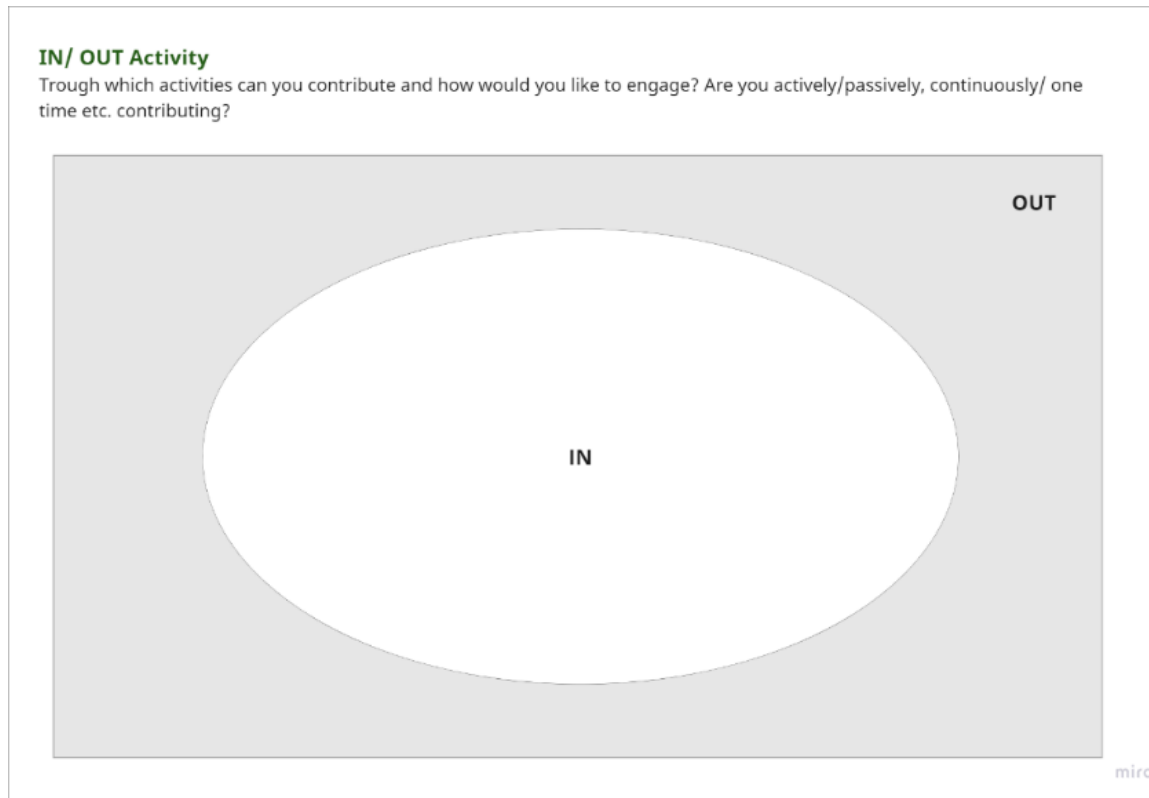


Figure 13: In & Out Activity Template

5.2.3 WS RESULTS

Internal WSs

During the internal WSs, each LL co-created its own Action-Frequency table containing all identified needed actions for the use-case definition and preparation of the implementation period. After the internal WSs, all actions were reviewed and clustered to create two main outcomes.

First, based on the action tool, CBS and each living lab co-created one specific action roadmap for each of the LL. This roadmap included all identified activities, clustered into designated meetings and WSs to be held within the timeframe with the internal and external stakeholders.

Finally, the results of all LL were clustered together to create one comprehensive overview of Actions needed to (1) define the use-cases and (2) prepare the use-case implementation within the project. To achieve this, all activities from all LL were reviewed, clustered and generalized tasks defined.

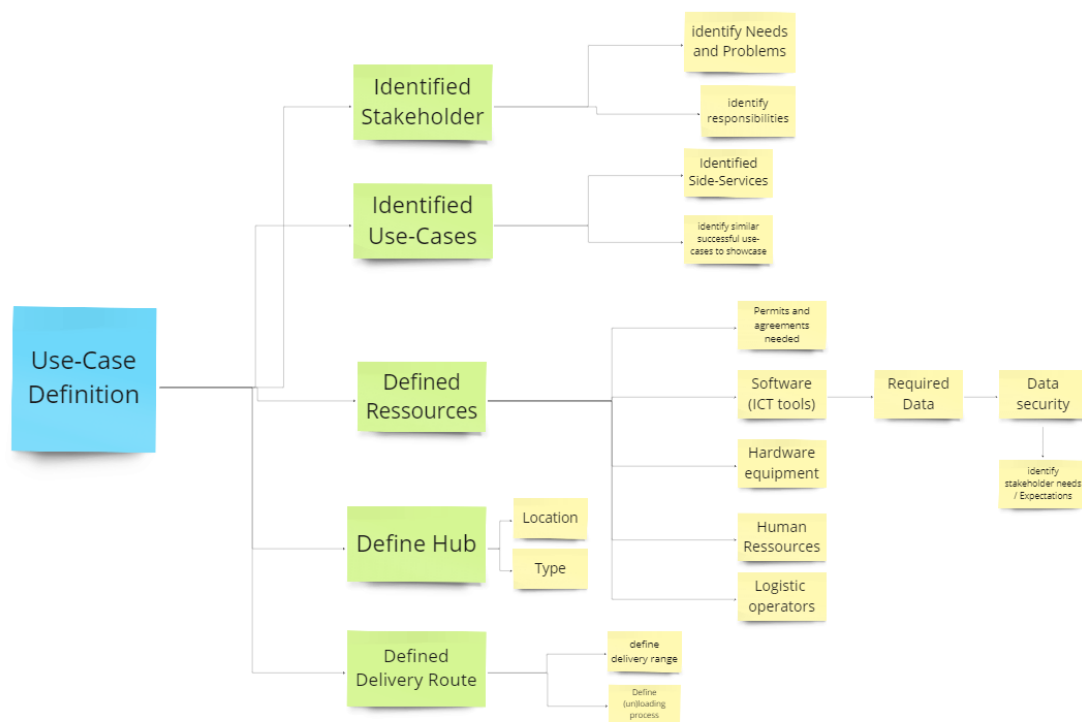


Figure 14: Example of clustering to identify actions from all LL

A comprehensive excel table was then created to display the identified actions and to serve as a project management tool for the LL. The aim was rather to have a good overview of all actions needed for a proper use case implementation than to provide a hierarchisation.

Time	Project Phase	Deadline	Milestones	Tasks	Related WP
M7-M19	Use-Case Definition	M12	Stakeholder Identification	Map relevant stakeholders	WP2
				Identify their needs and challenges	T2.1
				Identify stakeholders' expectations	T2.3
				Identify their potential roles within the Use-Case	T2.3
		M12	Use-Case Description	Identify the baseline situation	WP1
				Analyse the baseline situation	WP2
				Describe the use case	WP2
				Set performance indicators corresponding to the use case actions	WP2
				Identify added-value side-services	WP5
				Identify possible other/additional scenarios for the Use-Case	WP2
				Identify similar successful use-cases to showcase	WP1
		M16	Hub Definition	Define Hub-Location	WP2
				Choose and define type of the hub	WP4
		M16	Delivery Process definition	Define delivery range/area	WP2
				Map delivery routes and geographical scope	WP2
				Define method of transport	WP4
		M19	Resource Definition	Define (un)loading process/es	WP4
				Define needed hardware equipment	T5.2
				Define needed software (ICT tools)	T5.2
				Define needed Data	WP3
				Plan Data Security process	WP3
				Pre-define needed Human Ressources	T5.2
				Pre-define the needed financial resources	T5.2
				List permits and agreements needed	WP2
M17-M25	Preparation of Use-Case Implementation	M25	IT Implementation process	Identify Logistic Operators	T2.2
				Formalise success factors in the urban logistics strategies	T2.4
		M23	Hub-Installation process	Prepare implementation of IT tools	WP3
				Plan interior & exterior of hub	T2.4
				Plan installation process	WP2
				Get permits needed for the installation	WP5
		M19	Vehicles & Equipment Preparation	Define hub governance model	T5.3
				Develop technical equipment needed	T4.1
				Decide on the vehicle model and quantity	T4.1
				Define method of obtaining the vehicle: rent / buy	T4.1
		M19	Delivery Route Definition	Define Storage options	WP2
				Coupling of ICT tools with vehicles / equipment	T4.2
		M24	Autorization Process	Define Route schedule	T3.2
				Get permits needed	T7.1
				Define Legal framework	T7.1
				Get public authorization	T7.1
		M24	Business model	Get all permits needed	T7.1
				Get written Stakeholders' agreement	WP2
		M24	Marketing plan	Develop the sustainable business model Canvas	T2.5
				Define Targetgroup	WP5
		M24	Evaluation process	Define Marketing / Communication tools	WP5
				Define evaluation criteria	WP8
		M24	Budget	Set relevant KPI	WP8
				Set budgets for the Use-Case	WP5
		M18	Security Framework	Plan security during transport	WP7
				Plan security for Employees	WP7
				Safety protocols for equipment handling	T4.3
				Plan how to protect the ressources	WP7
		M19	Insuranceplan	Develop Insurance plan to cover location, vehicle & transport	WP7
				Plan insurance for Employees	WP7
		M25	Recruitment Process	Define profil of employees needed	WP7
				Outline the Recruitment Process	WP7
		M25	Training process	Write and plan the job announcements	WP7
				Outline the Training process	WP7
		M25	Training process	Plan the Feedbackprocess	WP7
				Plan the Feedbackprocess	WP7

Figure 15: use-case Action Plan developed based on the WS results

External WSs

The analysis of the WS results was focused on two main parts: the elaboration of the stakeholder engagement success and second, the analysing of the WS results including the needs and challenges identified and reviewed use-case roadmaps.

First, the review of the stakeholder engagement success in each of the LL. This was focused on elaborating how well the LL already managed to include important stakeholders from all categories (see below), as well as focusing on reasons that invited stakeholders did not join the WSs.

The following reasons were identified as reasons stakeholders did not attend:

1. Availability issues
2. Hard to reach stakeholders
3. Last minute cancellation

The following stakeholder engagement problems were identified:

1. Stakeholder roles were not clearly defined (Istanbul).
2. Stakeholder commitment is linked to economic viability (Nantes) → There is no willingness to commit to the use case until its economic viability is proven and a contract has been established.
3. Lack in communication around the added value of the use-cases
4. The standard approach for use cases doesn't account for how companies of different sizes will contribute varying levels of value. A large company might bring more resources and influence, while a small company might offer unique insights and agility. The approach should recognize these differences.
5. The use-cases are mainly discussed within the LL. Partners shared the wish to discuss the processes in other LL, exchanging experiences and ideas with them outside the framework of the project.

Overall, the LL showed a good stakeholder engagement success. In Hamburg, there are currently no local shops or businesses involved in the use-case definition. Also, the number of stakeholders engaged is smaller since Hamburg can work with associations which represent more stakeholders. It was agreed that Hamburg will first focus on clarifying the crucial questions around the usability of the barge before moving on to include local shops and businesses in the use-case definition. On the other hand, Logroño had to engage a high number of stakeholders due to a lack of operational associations to work with, making the coordination of the WSs more challenging.

Both Nantes and Istanbul are experiencing challenges with the stakeholder's commitment due to the missing proof for the use-cases economic viability. Based on these results, an internal WS to address stakeholder engagement challenges was developed for the CM2 in Hamburg.

Stakeholder engagement in WS2				
Stakeholder group	Istanbul	Nantes	Hamburg	Logroño
Local authorities and decision-makers	IMM Kadıköy Municipality İstanbul Enerji	FFB Nantes Metropole, river department CAPEB Association des commerçants de la Route de Vannes	Ministry for Environment Hamburg Port Authority	Association of Logrono historical centre Government of La Rioja (Rural Development) Government of La Rioja (Innovation) LGN
Logistics and Transport	MIGROS Paket Taxi Kargopark İletmen DHL Logistic Aras Kargo Hepsijet	Atlantique Boissons Pomona Terre Azur Transport Heppner DB Schenker Les Triporteurs Nantais SEMITAN	Agency for Roads, Bridges and Waterways	DHL Dacysir (glass bottle reuse) Jimenez Tagus (oil recycle) RCXB
(Local) business & consumers	Hepsiburada	Tout en Vélo Boite à Vélo Coopcycle		RIOFARCO Representative of "100 SHOPS WALK" TSYS San Blas Market Mercadona (La Rioja Supermarkt Association) CPAER (Organic Agricultural Production Council of La Rioja) Ciclo XXI (sale and repair of bicycles) Nuts Ángel Rosalinda eggs
Universities & Research	Sivas Cumhuriyet University		Fraunhofer Institute	Chair of Commerce Roja University International University of La Rioja CAPIT

Figure 16: Overview of Stakeholder engaged during WS2 (Project Partner in blue)

Reviewed use-case Roadmaps

One of the key objectives of the WS2 was to develop an action and engagement plan for each LL. While CBS drafted a roadmap based on the results of the internal WS, part of the external WS was reviewing and adapting the roadmaps if needed. The results of both the Action-Frequency tables as well as the roadmaps coming out of WS2 can be found in the appendix.

Identified Stakeholder needs and challenges

Another important outcome of the WS2 was the identification of stakeholders' needs and challenges within the individual LL, related to the use-cases. Following the results.

Overall Needs identified:

1. Infrastructure and Facilities
 - Reliable charging stations and power supply
 - Adequate storage solutions for cargo bikes, batteries, and logistics equipment.
 - Efficient logistics centres and hubs for consolidation.
2. Operational Efficiency
 - Optimized delivery routes and schedules.
 - Flexible and adaptive scheduling to manage demand and disruptions.
3. Compliance and Training
 - Adherence to local regulations and permits.
 - Training for drivers and staff on safety and operational procedures.
4. Community and Customer Engagement
 - Ensuring high customer satisfaction and predictable delivery services.
 - Raising awareness and supporting local, ecological products and sustainable practices.

Overall Challenges identified:

1. Logistical Complexity
 - Managing variable delivery schedules and routes.
 - Coordinating around large events and unforeseen disruptions.
2. Environmental and Topographical Constraints
 - Adapting to weather, geographical challenges, and load limitations.
3. Regulatory and Compliance Issues
 - Navigating the need for various permits and addressing data protection concerns.
4. Stakeholder Coordination
 - Facilitating collaboration among stakeholders and overcoming digital integration challenges.
5. Economic Viability
 - Controlling logistics costs and securing necessary investments.

The following part will provide an insight into the results of the individual LL. While the WS tool was the same for all the LL, there are noticeable differences between the types of results that came out of it. This can be due to multiple reasons, but mostly one needs to acknowledge the local differences and that the Use-case definitions were in different development states. While Hamburg's results are focused on use-case specific needs and challenges, Istanbul's results present a more holistic overview of local needs and challenges unrelated to one specific use-case. Logroño had identified seven use-cases at that stage of the project, leading to its focus on specific needs and challenges for each of them. Finally, Nantes approached the task from a more stakeholder centred point of view, identifying their specific needs and challenges in detail, resulting in an in-depth overview of the different perspectives on the use-case.

Hamburg LL

The point of departure for the vessel at the premises of the rowing association RV Bille involves several critical considerations. First, the contractual conditions for these premises must be clarified within the lease agreement. This includes ensuring that all terms of use are clearly defined and agreed upon to facilitate smooth operations. Additionally, the availability of an **adequate power supply** is essential for the vessel's operation. Ensuring a reliable power source at the departure point is crucial for maintaining operational readiness. Moreover, larger events like regattas, usually planned long-term, must be considered. These events could impact the availability and logistics of using the RV Bille premises, necessitating **advance planning and coordination**.

In terms of boat licensing and registration, navigating the Port of Hamburg requires a **Zone 2 Inland permit**. This permit is essential for legal navigation within the port. Furthermore, it is necessary to clarify whether the skipper needs additional qualifications or licenses, particularly regarding the transportation of hazardous goods. Ensuring **compliance with all safety regulations and legal standards** is critical for the operation.

The vessel's operation must also consider the **unique characteristics of the waterways**, specifically the inland drainage and tidal influences. These factors significantly impact navigation, and optimizing the route and timetable based on tide predictions—which are available up to one year in advance—is essential. **Effective route planning** ensures efficiency and reliability in operations. Additionally, there must be **flexibility to respond to short-term events** such as storm surges. This requires establishing direct communication channels with relevant stakeholders, including locks and the Hamburg Port Authority (HPA), to adapt to sudden changes and maintain operational continuity.

One of the primary challenges involves the **tide-dependent operating times** for delivery staff. Staff must remain on standby until the vessel arrives, which affects their scheduling and productivity. This presents a logistical challenge that must be managed carefully to maintain operational efficiency. Another significant challenge is related to **DHL customer satisfaction**. The reduced ability to plan the arrival of parcels can impact customer expectations and service reliability, posing a risk to customer satisfaction.

Istanbul LL

Needs: One primary need is the **establishment of enough charging stations**. This is crucial to ensure that vehicles can be adequately powered and thus operational. Additionally, providing **safe-driving training** for drivers is essential to enhance safety and efficiency on the road.

Optimizing road-land usage is another critical need, aiming to improve the logistics and efficiency of transport routes. Furthermore, the BM must be supported by relevant authorities to ensure **compliance with regulations** and to facilitate smooth operations. **Increasing cabinet and vehicle capacity** is necessary to handle larger volumes of deliveries efficiently and to meet growing demand.

Challenges: **Weather conditions and topography** pose significant challenges, affecting driving conditions and route planning. **The weight of deliveries** also presents a problem, requiring careful consideration to ensure vehicles can handle varying loads without compromising safety or efficiency.

More generally, **social habits** can influence the effectiveness of the delivery system, requiring strategies to address varying consumer behaviours and expectations. Moreover, stakeholders noted that the standard approach created does not account for the difference in added value effect between larger and smaller firms. This lack of differentiation could impact the perceived fairness and effectiveness of the approach and thus lead to dissatisfaction among stakeholders.

Finally, access **to consolidation centres by means of transport from the supplier** is another critical issue, since ensuring that suppliers can easily and efficiently deliver goods to consolidation centres is essential for maintaining the overall efficiency and reliability of the delivery network.

Logroño LL

use-case 1.1 Consolidation of parcels and goods distribution with cyclo-logistics for B2B and B2C (DHL & RIOFARCO)

The **delivery schedule varies significantly**, with some areas having deliveries 5 days a week and others 7 days. The **territorial division of deliveries based on postal codes** creates logistical challenges. DHL has very few pickups in the city centre, often less than five per delivery person, and the time between delivery stops is highly variable and unpredictable. Additionally, **strict pharmacy regulations** impact the technical handling and delivery processes.

use-case 1.2 Consolidation of parcels and goods distribution with cyclo-logistics for B2B and B2C (Association of LGN historical centre, 100 Shops Walk, CICLO, MERCADONA)

The key need identified here is that people visiting the city centre for bars and restaurants are **reluctant to carry shopping bags**. This is highlighting the potential for public lockers to store and collect bags later or provide home delivery. Additionally, **local shops need to increase their negotiation power** by grouping together. There is a need to **raise social awareness about local proximity purchases** and distinguish which deliveries need to be immediate or express. Local shops are interested in **cost-effective storage solutions**. Proximity shops show more interest in marketplace projects than in last-mile logistics. A challenge for the implementation will be that **most shops are not yet digitalized**, which poses difficulty in integrating modern logistics solutions.

use-case 2 Consolidation of "social" deliveries - Service to Community (TSYS & RIOFARCO)

The deliveries in this use-case are not purely logistical but also provide specific assistance, such as home delivery of meals to elderly people. There is a strong interest in a **web platform that consolidates all goods and services** related to dependent citizens, including home deliveries of wheelchairs and orthopaedic items. While there is interest in delivering medicines, **current regulations require specialized personnel**. Additionally, the delivery of goods for elderly people is of interest, though it involves low volume, **necessitating municipal support**. There is a crucial need for a **community support network** among businesses and services related to dependent people, such as pharmacies, kiosks, and orthopaedic providers.

use-case 3.1 Consolidation and Improve supplies and/or pickup/deliveries of fresh products (proximity products) – Ecological products (CPAER, Nuts Angel, Rosalinda Eggs)

Challenges: The increased demand for ecological products presents a significant challenge for small businesses, as a substantial amount of time is spent on delivery instead of focusing on core business activities. Business viability could be improved if producers **shared a sales or distribution point**, such as the San Blas Market, which has available premises with low rent. The marketplace is specific to the city of Logroño, and if the Consejo de la Producción Agraria Ecológica de La Rioja (CPAER) had a sales point in the city, it would facilitate participation for producers not located there. Additionally, there are **concerns about the logistics costs** within the project. If these costs are high, it will diminish stakeholder interest.

Needs: Greening the last mile of delivery is fully coherent with the nature of ecological products. People need to know where to buy ecological products in a systematic way, and there is a proposal to draft a **product catalogue** to address this need. Disseminating information about these products is essential to **raise awareness**. Regarding prices, ecological products must be democratized so that anyone can buy them, even at supermarkets, integrating both eco and non-eco products together. Public procurement should also include criteria for a percentage of ecological products in public premises, such as school canteens and hospitals.

use-case 3.2 Consolidation and Improve supplies and/or pickup/deliveries of fresh products (La Rioja & Mercadona (supermarkets association))

Challenges: Concerns about providing data and the treatment of **data protection** remain a critical issue, reflecting stakeholders' reluctance to share sensitive information. Furthermore, the importance of public procurement in supporting local products is emphasized, aligning with the need for criteria that prioritize ecological products in public premises like school canteens and hospitals.

Needs: Stakeholders were highlighting the need to **assess the time spent for deliveries** and the need of **creating synergies with related regional projects**, such as national initiatives focused on organizing logistics for primary productions. Additionally, there is a need for data on markets that feature local producers to better coordinate and streamline distribution efforts. Stakeholders have shown a **strong interest in the marketplace project**, viewing it as a viable solution to the identified challenges. Mercadona's interest in the living lab concept being implemented in Istanbul with Migros further

indicates potential for cross-city collaboration and learning, which could provide valuable insights for the Logroño project.

use-case 3.3 Consolidation and Improve supplies and/or pickup/deliveries of fresh products (San Blas market association)

The San Blas Market Association has expressed a keen interest in **improving storage solutions**. They are particularly interested in **enhancing last mile delivery services** for purchases made at several shops, rather than focusing on first mile delivery from producers to shops. Additionally, they are interested in participating in a marketplace, where they see the need for efficient delivery services, a comprehensive product catalogue, free parking, and vouchers to facilitate customer access and convenience.

Challenges: One of the main challenges identified is **the difficulty in matching their delivery schedules** with the consolidation of routes, which complicates the logistics and efficiency of deliveries.

Needs: There is a need to **raise awareness** among sellers about the importance of valuing the time spent on delivery. This understanding is crucial for improving the overall delivery process and ensuring that stakeholders appreciate the benefits of optimized logistics.

use-case 4 Reverse logistics with cycle logistic for the collection and reuse of waste (Dacysir & Jimeno Tagus)

Challenges: There are several challenges associated with implementing this system. Making the service compulsory can be difficult for sectors like HORECA (Hotels, Restaurants, and Cafes), even though it could enhance circularity in this sector. This is especially due to the **timetables and the obligatory nature of the service** for the non-domestic sector, particularly for HORECA. The idea of home collection of oil is declared unfeasible. Finally, there are concerns about using bikes instead of vans for the collection of waste due to the **volume limitations** and potentially **higher collection costs** associated with bikes.

Needs: The success of this use case relies heavily on its duration and the level of **citizen awareness**. There is a need for substantial publicity efforts from the municipality to raise awareness. The system should be designed to be easy for businesses, minimizing their involvement in waste management. Investment in logistics is fundamental as it directly impacts costs. The municipal "Punto Limpio" service, although primarily intended for individuals, is currently also being used by the HORECA sector. Plans are underway to install a "door-to-door" collection system for paper and cardboard in the historical centre, which has sparked controversy in the HORECA sector.

Finally, stakeholders identified a potential to **recover other types of waste, such as fat and animal waste**. Both Dacysir and Jimeno Tagus compensate establishments for waste collection, highlighting an economic incentive for participation. Hence, there is potential to increase waste collections in Logroño city.

Nantes LL

use-case 2 Bus Depot

For Nantes use-case 2 one major common stakeholder need is considering the **storage for equipment at night**, including cargo bikes, batteries, and other materials. Each site needs to store between 5 and 6 cargo bikes, requiring approximately 150 m². Additionally, there is a need to store and **recharge two batteries per bike per day**. Utilizing Park and Ride (P+R) facilities for nighttime storage and optimizing space with cargo bike lift parking could be potential solutions. Nantes Métropole is aware of free spaces available for rent during urban changes.

Another common need is to have a preventive plan that includes training to integrate employees on a third-party side. Additionally, it is important to have **clear and specific access controls** and carefully consider the type of employment contracts (permanent or temporary) due to the higher turnover with employees in the logistic sector. It is recommended to include social clauses in contracts between

transport operators, SEMITAN, and Nantes Métropole to align with public policies and SEMITAN's Corporate Social Responsibility (CSR) initiatives. Finally, the bus depot still has gas refuelling pumps on-site, which must be factored into the planning process.

DB Schenker

DB Schenker has several specific needs to facilitate the effective use of a bus depot as temporary logistic storage. Firstly, there is a requirement for **social premises for logistics employees**, including bathrooms, changing rooms, and break rooms, sufficient for 6 to 10 people per site. One potential solution is using an old bus for these social premises, but the location of this bus needs to be determined. Additionally, there must be one person on-site during the day, necessitating the installation of a **telephone line and internet access**. The site also requires **clearly delimited areas for each stakeholder** and a secured zone to ensure safety and proper organization.

The distribution zone by cargo bike should be within a maximum of 3 km from the city centre, making the Trentemoult or Dalby depots ideal. The ideal operating area for DB Schenker is between 500 and 700 m², whereas the current area at Les Olivettes is only 350 m², indicating a need for expansion. A roofed warehouse is essential for the storage of goods.

Regarding operations, access to the site must be available by 6:00 AM, as cargo bikes need to leave between 6:30 and 7:00 AM. Evening operations are less constrained, with activities typically wrapping up between 5:00 and 6:00 PM. The site should also accommodate 19-ton trucks, with 3 to 4 trucks expected per site. The goods transported are not sensitive, with typical parcels weighing around 100 kg, intended for bookshops, shoe sellers, and small restocking for supermarkets.

SEMITAN

SEMITAN also has several needs and considerations for the bus depot's use as a temporary logistic storage site. First, no items can remain on-site overnight, and the available area and timetables need verification depending on the required surface area. Additionally, the same area must be delimited consistently from day to day, potentially with visual markers on the ground. SEMITAN points out that once or twice a year, an unforeseen constraint like a gas leak may require evacuation and temporary blocking of site access.

Controlled temperatures are possible at the depot, but SEMITAN requires data exchange to know the amount of dangerous or sensitive goods on-site.

Finally, SEMITAN wants to explore options to utilize the presence of delivery vehicles for their own equipment delivery needs between depots.

Les Triporteurs Nantais

Les Triporteurs Nantais expressed the need for detailed information on bus depot regulations and the geographical status of the depot to optimize delivery to the city. They are considering setting up shuttles (ELP) and question the environmental efficiency of a daytime hub compared to goods returns and delivery defaults.

Currently, they handle 150 delivery locations (100 pallets) per day, with the potential to increase to 400 locations per day in Nantes. Each deliveryman makes about 20 round trips per day, and they use up to 4 HDVs per day. Heavy goods are delivered using light commercial vehicles, while cargo bikes, with a capacity of up to 650 kg, can deliver within an hour around the hub. The maximum dimensions of goods for cargo bike delivery are 80cm by 120cm.

5.3 REACHING UNREACHABLE STAKEHOLDER WS (WS3)

During the second consortium meeting in Hamburg, CBS conducted a WS to evaluate the status of the external stakeholder engagement and reflect on challenges experienced. The WS was based on the results from the WS2 which was previously held in each of the LL. Based on the reporting received back, CBS presented an overview of stakeholders present during the WS and issues experienced. Afterwards each LL and SC received the templates to discuss and brainstorm internally, followed by an open round where the regions could consolidate each other to develop strategies to overcome experienced challenges. The results of the WSs were discussed in individual follow up meetings and utilized to prepare the WS3 and adjust the individual stakeholder engagement strategy if needed.

Figure 17: Example of WS-Template from Hamburg

5.3.1 WS TOOLS & MATERIALS

To reflect on the Stakeholder engagement success in the LL, two main factors were considered. First, how diverse are the stakeholders engaged by each LL compared to the stakeholder groups identified by DECARBOMILE for engagement? In other words, how effectively have the LL managed to engage stakeholders out of all relevant stakeholder groups.

Second, reflect on the engagement status of the stakeholders that the LL are attempting to engage within the WS. Including focusing on any potential issues encountered while trying to encourage and facilitate stakeholder engagement throughout the project.

The WS provided the following materials:

Preparation

First, every LL received an overview of stakeholders engaged within the WS2 clustered in the key stakeholder categories. Additionally, the document received also summarized the stakeholders not reached with the WS. This enabled the LL to reflect on the coverage of important stakeholder groups.

Stakeholder engagement in WS1 - NANTES			
Local authorities and decision-makers	Logistics and Transport	(Local) Businesses & User	Research and others
FFB Nantes Métropole, river department Association des commerçants de la route de Vannes	Atlantique Boissons Pomona Terre Alour Transport Heppner D&S Schenker Tout en Vélo Botta à Vélo Coopcycle SEMANTAN	CAPEB	
Stakeholders not available due to scheduling constraints: JC Decaux			
Project Partners			
NANTES	IDCAR, FLEX, CARA, TRI, IT		IMT

Step 1 Stakeholder engagement challenges 10 min

Challenges identified in WS1:

- 1) Availability issues
- 2) Stakeholders are hard to reach out to
- 3) Stakeholder roles were not clearly defined
- 4) Stakeholder won't commit until economic viability is proven

Other problems and challenges you are facing when engaging with stakeholders:

Step 1: Identifying Engagement Challenges

The first Brainstorm template showcased the engagement issues the LL experienced during WS2 and asked them to brainstorm and collect additional challenges they were facing.

Step 2: Stakeholder engagement status

Within the next step, LL were asked to rank how well their level of stakeholder engagement was supporting the project's success. Additionally, they were asked to explain the ranking by stating things that are going well and things they would like to improve in the ongoing process.

Step 2 How well does the current stakeholder engagement support the success of the project? 10 min

Excellent Good Medium Poor Very Bad

Please explain your ranking. Focus on which aspects are going well and which aspects you would like to improve.

We are happy with... We want to improve...

Step 3 Potential Solutions 15 min

1. Troubleshoot: Discuss potential underlying causes of the problems from step 1.

2. Formulate solutions: Collect ideas to tackle the challenges.

Example: Availability issues

1. Troubleshoot: They don't have time to travel.
2. Solution: We might offer the option to join the WS online.

Push-Id: Offer online participation

Step 3: Identifying potential solutions

Finally, the LL were asked to discuss underlying causes for the identified challenges they are experiencing and building on that formulating solutions on how to approach them. To encourage interactive discussion and problem solving, the members of the LL were mixed to bring a new perspective and consolidate the experience from other project partners.

5.3.2 WS RESULTS

5.3.2.1 General Results

Overall, the LL ranked the stakeholder engagement success as good (Istanbul, Hamburg, Logrono) or Medium (Nantes). During the WS, some project-related challenges could be identified. One of the key issues experienced was that the LL have issues visualizing the long-term success and economic viability of the use-cases at the current state of definition. The attempt to utilize old data from stakeholders to

highlight the potential of, for example, the route optimization tools was aggravated by the stakeholder's hesitance to share data. Also, the collaboration between stakeholders was proven to be difficult due to their competitive nature. To address these challenges, project-related success stories will be necessary to highlight the potential and viability of the proposed use-cases. Additionally, a focus on Data security is recommended since the sharing of Data will be a key factor for the success of the use-cases.

5.3.2.2 Hamburg

In the Hamburg LL it was identified that the number of stakeholders involved is low, which is due to many stakeholders being associations and thus representing many businesses. It was discussed that all currently relevant stakeholders are engaged and that after the main use-case is secured, additional stakeholders can get involved. The main issue with the Stakeholder engagement identified is that the WS format is not the most fitting to address the specific issues Hamburg is currently facing. Therefore, it was decided to plan more bilateral meetings.

	
We are happy with... - We have the important stakeholder for the current state --> additional stakeholders will be included when needed - Other stakeholders connect us with necessary stakeholder	We want to improve... - Combining the overall WS concept with the current state of the use case - Is the WS format correct? --> bilateral meetings seem to be more useful
Challenges identified: - No direct contact between boat and local stakeholders → to late - Distance between Hamburg and Ghent - Problems defining the right contact in the company --> Who should be engaged? - Haven city is hard to reach - Direct contact to invite the Stakeholders is necessary - Hard to address stakeholder at the right time --> sometime bilateral meetings are better to keep stakeholder engaged	Solutions identified: - Better communication of the WS goals - Plan more bilateral meetings

Table 7: Results CM-WS Hamburg

5.3.2.3 Istanbul

Istanbul had to coordinate a considerable number of stakeholders and therefore organized the WS2 several times at different dates to engage as many stakeholders as possible. The fundamental issue the LL was experiencing was that the use-case definitions were not clearly defined yet which made it harder to include stakeholders. Also, the LL recognized the risk of diminishing interest from Stakeholders due to bigger gaps between the WSs held in the project. It was therefore agreed that

stakeholders need to be involved on an ongoing basis and the communication plan was updated. Finally, stakeholders are linking their interest and commitment in the project to a proven economic viability of the use-cases. It is therefore important to consider how success stories from similar projects can be utilized to showcase the potential of the projects proposed.

	
We are happy with... - Number of stakeholders participating - How active the municipality was in engaging a large number of participants - Interest of participants and great participation within the WS - Partners brought knowledge about the management of the consolidation centers + success stories - There are partner experienced in smart lockers who can be involved	We want to improve... - Use cases were not clear at this stage, thus participants were unsure what to do, so it made it difficult to engage with them - Timelapse between the first and second WS lead to diminishing interest - Participants are using their own SW solutions which are difficult to incorporate
Challenges identified: - Stakeholder roles were not clearly defined - Stakeholder won't commit until economic viability is proven	Solutions identified: - showcase successful solutions from other projects / cities / customers - Create a regular communication plan - Define and tailor uses cases from the stakeholder capabilities

Table 8: Results CM-WS Istanbul

5.3.2.4 Logroño

Similar to Istanbul, Logroño also wants to improve the visualization of the viability and long-term success of the use-cases to the stakeholders. Unfortunately, stakeholders are still reluctant to share their Data to enable the visualization and showcasing of route optimization tools or similar software tools. Therefore, one important next step will be to discuss Data security and to define a framework for data sharing with the stakeholders.

	
We are happy with... - Early adopters - Dacysir and jimenez Tagus are promising businesses --> possibility to expand and bring more business to them with a sustainable collection	We want to improve... - Visualize long term success and viability for businesses - Early adopters related to Horeca Channel

Challenges identified: - Stakeholders are not willing to share information / data - Stakeholders do not trust that it will work - Mindset and culture - Reluctance of political leadership - Lack of knowledge of services	Solutions identified: - A neutral actor to leader project might help - Define and show the business proposal - Define Data sharing framework
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Table 9: Results CM-WS Logroño

5.3.2.5 Nantes

Nantes is experiencing similar issues than Istanbul & Logroño. They describe being stuck in the current stakeholder engagement level since the stakeholders want a verification of the success first, before moving forward, but are on the same hand not willing to share data to test the proposed software tools.

	
We are happy with... - Involvement of cyclo-logistic operators - Involvement of SEMITAN	We want to improve... - Include more transport / distribution operators - Increase involvement of stakeholder - Clarity on the parameters of the use cases (when, who does what...)
Challenges identified: - Engagement issues with Atlantique Boissons, Pomona Terre Azur, Transport Heppner and DB Schenker - Identify other stakeholders that could be included, update definition and value of the stakeholders - Readjust interest and roles within the project of the consortium members - Partners are not willing to share their data → needed to show them benefits and success - Identify other projects to show success stories and built-in engagement	Solutions identified: - Identify and show values in a more tangible way - Studies → need of data - Examples of success stories : utilize other existing success stories (Built-in communities: ex. E-commerce of LSP's – > reinforce abstraction of LSP's - Data security : figure out needed framework to get stakeholders to trust us with their data - Provide more tangible information for each use-case: What type of stakeholder is needed to do what, when and where - Help them “project” themselves -

Table 10: Results CM-WS Nantes

5.4 USE-CASE ACTION PLAN WS (WS4)

WS3 was targeting to finalize objectives from T2.3 while preparing the work on the implementation phase for T2.4. Therefore, the WSs were utilised to further define the use-cases and review the work results from the previous engagements, especially next steps in the engagement and use-case definition process. Finally, the WSs addressed the current socio-economic situation in the LL cities to identify hindering and enabling factors for the use-case implementation.

Due to the noticeable difference in the work status of the LL, CBS tried to provide an individual guideline if needed. Additionally, Logroño had to hold the WS at a later time in an online session due to a change in the political team. The objectives of the WS were as follows:

WS- Objectives

1. Review the defined use-cases
 - Discuss & Choose partner tools to be integrated into each use case
 - Confirm the potential hub locations
 - Clarify the objectives for each UCs
2. Review (and update if needed) the stakeholder engagement plan
 - Remind of meetings and communication planned
 - Revise (update if needed) the activities to take place on the upcoming WSs
3. Review the stakeholder action roadmap for the use cases
 - Identify milestones and review actions / activities
 - Reflect which stakeholders want to contribute
 - Define responsible project partner & success criteria for each action
4. Market environment analysis
 - analysis of the socio-economic context in the pilot regions
 - Analysis of assets and obstacles that could empower or restrict the businesses success
 - Analysis of enabling aspects that might create growth opportunities
5. Prepare an outline of the use-case implementation strategy
 - Discuss the implementation strategy to implement the use cases, based on your needs
 - Brainstorm the outline of the implementation roadmap by identifying important steps

The Internal WS was held 23rd October 2023.

LL	Date & Time	Number of attendees	Stakeholders present
Istanbul	18.02.2024	9	MIGROS, Iletman, KARGOPARK
Hamburg	02.11.2023	10	Bezirksamt Mitte, BID Neuer Wall
Logroño	08.03.2024	5	RIOFARCO, DHL
Nantes	02.11.2023	11	Les Boîtes à Vélo, Terre Azur / Pomona, HEPPNER, IMT Atlantique, Atlantique Boissons, FFB, ID4MOBILITY

Table 11: Internal WS3 Overview

5.4.1 WS PREPARATION

In preparation of the external WSs, CBS held an online internal WS utilizing MIRO to introduce and prepare the WSs tools with the LL. The focus was especially on explaining the redesigned and updated version of the roadmaps, which are now split into the Action Plan (AP). The AP is used for visualizing all actions identified and the action calendar to be used to set LL specific milestones and plan actions and meetings that need to be covered to achieve those milestones in time. During the internal WS, each LL team started to fill in the WS templates to have a starting point of conversations with the stakeholder during the external meetings. CBS did provide each LL with the templates containing the results produced during the internal WS.

5.4.2 WS TOOLS AND MATERIAL

use-case Action calendar

The use-case action calendar is visualizing the process of the project in the upcoming months. On top of the timeline, the LL are identifying and formulating milestones to reach. In the calendar below, the actions needed are mapped out including necessary meetings or WSs to be held to achieve the use-case milestones. The Action-plan provided can be used as orientation of what activities need to be addressed and covered within the different stages of the use-case.

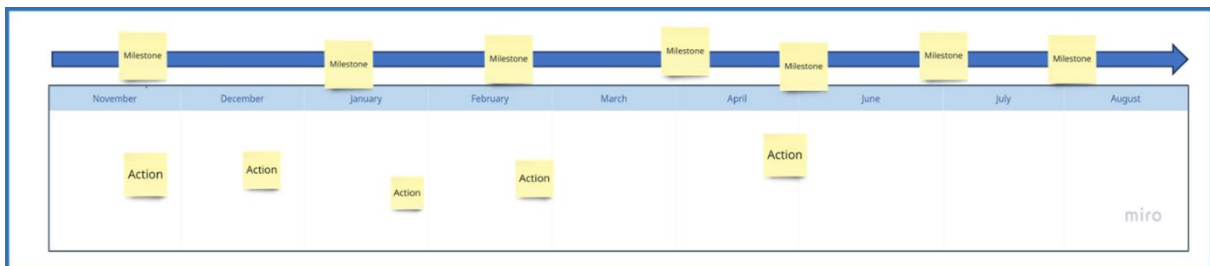


Figure 18: use-case Action Calendar template (made by CBS)

PEST-Analysis

The PEST (Political, Economic, Social, and Technological) analysis tool is a strategic framework used to evaluate the external factors that can influence the success or failure of a project or business initiative. This tool is particularly valuable for assessing the socio-economic context in pilot regions and identifying the key assets and obstacles that could impact business success. The analysis encompasses four critical dimensions:

1. **Political Factors:** This dimension examines the impact of government policies, regulations, and political stability on the project. It helps identify restrictions, regulatory hurdles, and political changes that could delay or hinder progress.
2. **Economic Factors:** This dimension assesses the economic environment and its influence on the project's viability. It includes evaluating the financial benefits for stakeholders, funding sources for necessary equipment and infrastructure, and overall economic trends that could affect project outcomes.
3. **Social Factors:** This dimension explores the social environment, including cultural and social perceptions, awareness levels, and acceptance among local stakeholders. It identifies potential resistance, the willingness of stakeholders to embrace change, and diverse usage preferences that might influence the project's implementation.

4. **Technical Factors:** This dimension focuses on the technological aspects, such as access to relevant data, the ability to collaborate and share data across stakeholders and regions, and the challenges associated with implementing ICT tools. It also considers the availability of necessary infrastructure, like micro-hubs, to support the project's use cases.

By systematically analysing these dimensions, the PEST tool helps identify the enabling factors and obstacles that could empower or restrict businesses from achieving success. It can therefore highlight potential growth opportunities and help ensuring that businesses can navigate the external environment effectively and capitalize on available opportunities (Yüksel, 2012; Gupta, 2013).

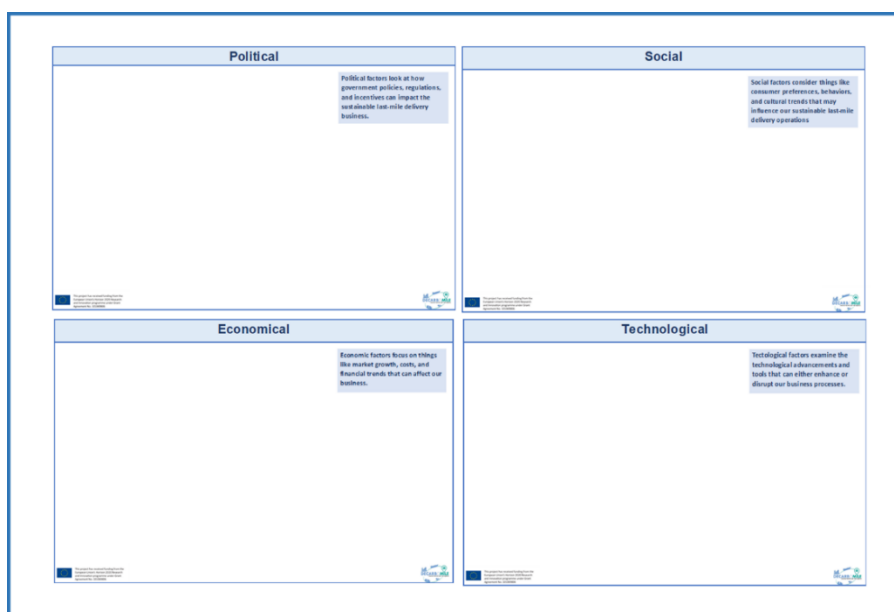


Figure 19: PEST-Template (made by CBS)

5.4.3 WS RESULTS

Action-Calendar results

Each LL reviewed the use-case action roadmap created in WS2. CBS provided each LL with two tools to do so. First, each LL received their updated Action Calander as a word document. Second each LL started working with the use-case action plan, documenting the current work status of each action identified in WS2. The action plan (introduced in WS2) is used as project management tool to keep track of the work status and provide guidance to define concrete actions to plan the stakeholder engagement (meetings, tasks etc.). The action calendar provides a more in-depth monthly overview of (1) Milestones to be reached, (2) Individual actions to be addressed & (3) meetings planned with stakeholders.

The full action plan and the reviewed action calendars of each LL can be found in the Appendix.

Task	Project Phase	Deadline	Milestones	Tasks	Status	Responsible Project Partner	October	November	December	January	February
MT M19	Use Case Definition	Aug-23	Modified Stakeholder	Identify Needs and Problems	Finished	Responsible Project Partner	JCL Location identified	JCL Location identified	JCL finding the status of JCL location & finding	Defined pattern flight events	JCL finding the expansion strategy for JCL Year projects
				Identify Expectations	Finished						
		Aug-23	Modified Use-Cases	Identified Stake Services	Finished						
				Identify similar successful use-cases to showcase	Started						
	Defined Resources	Mar-24	Defined Resources	List Permits and agreements needed	Finished		Get all approvals	Review all project requirements	Publication Calculations	Service Training	Editorial on website WS
				Get needed Software / ICT tools	Finished		Get all approvals (Community)	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Plan Data Service processes	Started		Get all approvals (Regulations)	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define needed Data	Started		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Define Hub	Dec-23	Define Hub	Define needed hardware equipment	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define needed human Resources	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define Logistic Operations	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define storage location	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Outlined Delivery Route	Dec-23	Outlined Delivery Route	Choose and define type of the HUB	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define delivery target	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Outline delivery resources	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define method of transport	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Defined IT processes	Dec-23	Defined IT processes	Define linking process	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Prepare implementation of IT tools	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Plan interior & exterior of HUB	Started		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Plan installation process	Started		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Prepared HUB Installation	Dec-23	Prepared HUB Installation	Get permits needed for the installation	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Technical and physical requirements for the installation	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Decide on the vehicle model	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define method of obtaining the vehicle rent / buy	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Prepared Vehicles	Dec-23	Prepared Vehicles	Define Storage options	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define Route selective	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Get permits needed	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define Legal Framework	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
	Final Authorization	Dec-23	Final Authorization	Get legal authorization	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Get all permits needed	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Define Legal Framework	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation
				Get legal authorization	Finished		Plan implementation & cost of implementation / value capture	External WS Workshop	Get external agency for evaluation	Get external agency for evaluation	Get external agency for evaluation

Figure 20: Action Plan (Left) & Action Calendar (right)

PEST-Analysis results

The WSs highlighted several challenges across political, social, economic, and technical dimensions throughout the use-cases. Politically, the LL need to navigate restrictions and regulations that could potentially hinder the implementation phase. Additionally, changes in the political leadership team are causing delays and can hinder progress. Socially, it was identified that there is a lack of awareness and acceptance of new logistic solutions among local businesses and residents, alongside a reluctance to change and diverse usage preferences of local stakeholders that aggravate the logistic consolidation process. Economically, the biggest challenge is a pending economic viability of the Use-cases making it hard for local stakeholders to see the economic benefits. Additionally, it is currently unresolved who will fund the necessary equipment, software, and infrastructure after the project concludes. Technically, there are especially challenges with accessing relevant data, and convincing local stakeholders to data-collaboration and the sharing of data across stakeholders and state borders. Finally, some LLs are experiencing a shortage of available Micro Hubs / locations for logistic infrastructure in the city center.

PEST-Analysis	
	Hindering factors for the use-cases
Political	Restrictions and regulations that hinder the implementation of the use case Political changes are slowing down /hinder the progress
Social	lack of awareness Rejection of the project and its implications by local business and residents Unwillingness to change from the local stakeholders Wide diversity in usage preferences and behaviours
Economic	No economic benefit identified for the local stakeholders Who pays for equipment, software and physical infrastructure once the project ends?
Technical	Access to relevant data Lack of awareness about data sharing value Collaboration and sharing of data among stakeholders Sharing of data beyond state borders (IST) Difficulties in implementing ICT tools Lack of micro-hubs to implement the use cases

Table 12: PEST Analysis Results

Two main take-aways from these findings for the ongoing stakeholder engagement strategy is that the LL will focus more on the elaboration and highlighting from similar successful project to help highlight the economic benefits of the use-cases and the potential added value the stakeholders may find in addressing the identified challenges through the defined actions in the use cases. Additionally, there will be a better focus on outlining data sharing frameworks to address open concerns about security and privacy and resolve the stakeholder's restraint to share data.

Following is the individual result from each of the LL.

Hamburg

	Enabling factors	Hindering factors
Political	- Political relevance of the project and its implications - Political acceptance of the project and its implications	- Specifications and restrictions for setting up smart lockers and micro-hubs - Applicable monument protection regulations at the mooring location
Social	- Acceptance of the project and its implications by local business and residents	- Rejection of the project and its implications by local business and residents
Economic	- Positive Publicity - First mover in Hamburg	- Available budget and time capacities - Regulatory requirements for tenders - Project partner DHL is facing severe cost disadvantages in contrast to the initial planning which might outweigh the made experience and positive public perception of the project. - Costs and efforts for the necessary structural changes to the loading and unloading sides
Technical	- Hydro Portal providing the necessary data regarding water depths and tide forecasts available	- Technical unsuitability of the barge - Costs of the necessary adaptation of the barge - Shortage of skilled labour and high order backlog at local shipyards - Necessary data (e.g. on water depths and tide forecasts on HPA's Hydro Portal) only available against payment - Necessary data only available in German

Table 13: PEST Analysis Hamburg

Istanbul

	Enabling factors	Hindering factors
Political	- Having access to effective authorities in decision-making mechanisms	- Processes may progress slowly in local government as election time is approaching
Social	- Highly active population	- Wide diversity in usage preferences and behaviors - Adaptation process
Economic		- Difficulty in purchasing overseas services due to exchange rate difference
Technical	- Active and up-to-date data collection from the field - Regular data analysis (historic-current)	- Since Türkiye is not a member state of the European Union, data cannot be transferred beyond the country's borders

Table 14: PEST Analysis Istanbul

Logroño

	Enabling factors	Hindering factors
Political	- Regulations like low emission zones	- Change of politic group leader could change the position and development of the project
Social	- Positive externality (less public space occupation, less noise, pro sport) - HHRR: Social inclusion and creation of employment	- Local stakeholders focused on their core business, not on delivery - lack of consciousness --> need of dissemination and training
Economic	- Energy prices	- Who pays equipment, software and physical infrastructure once the project ends? - Missing cycle-logistic operator
Technical	- Renting opportunities of vehicles	- Lack of permanent IT maintenance staff - Energy production

Table 15: PEST Analysis Logroño

Nantes

	Enabling factors	Hindering factors
Political	- Aligning political agenda targeting emission reduction	- Change in political priorities
Social	- Demand for reduction in traffic and airpollution	- Habits change for logistics workers (working hours, new tools, security) - Citizens acceptability of hubs in the city
Economic	- Environmental impact measure	- Price variation of materials, equipment and rent
Technical	- Testing of new equipment (like Fleximodal)	- Integration of new tools in the logistics process

Table 16: PEST Analysis Nantes

In summarizing, the enabling and hindering factors across the four LLs common themes emerge. Key enabling factors include positive political relevance, social acceptance, economic feasibility, and technical readiness. However, critical challenges revolve around political acceptance, regulatory hurdles, budget constraints, and technical limitations. Moving forward, it is essential to integrate these insights into the project and use-case development process. For instance, engaging with policymakers early and carefully mapping needed regulations to navigate regulatory hurdles. Also, openly discussing and reviewing cost structures to alleviate budget constraints. Thus, particular attention must be given to mitigating these hindering factors during the implementation of the use cases to ensure the project's overall effectiveness and sustainability.

5.5 BM VALIDATION WS (WS5)

To consolidate the stakeholder's interest and validate the identified BMs for the use-cases (BM's will be further detailed in another deliverable of the project, D5.1), T2.5 will conduct interviews, surveys and WSs combined with visits in each of the LL. The task will be approached in three steps.

1. Interviews / survey to consolidate stakeholders' interest in the identified BMs
2. WSs and on-site visits to specify the economic aspects of the BMs and specify the governance models
3. Assessment of the suitability of the BMs

Target group	Method	Objectives
Key- Stakeholder	Interview	BM - Validation of interest in the current BM - Validation of stakeholder role within the BM - Thoughts on economic feasibility - Long-term perspective and scalability - Expected Outcomes Partnership & Consolidation - Interest in the mapped PPP and consolidation - Hindering aspects and requirements
	WS & Visit	- Review and Co-Creation of the specific consolidation/ partnership framework (PPP) - Review and approval of specific stakeholder roles within the Business / Governance model - Review & assessment of the economic viability of the use-cases based on CBA - Review and update of BM assessment framework (T2.5)
Project relevant stakeholder --> WP8 Generic BM	Survey	Generic BM & Future implementations: - Potential interest in the generic BM mapped for the use-case area - o Which role is interesting - Interest in consolidation and partnership with municipality and other stakeholder - Hindering aspects of participation

Table 17: BM-Validation Method Overview

5.5.1 CONSOLIDATE STAKEHOLDERS' INTEREST

To address stakeholders and validate their interests in the identified BM, CBS and IT started with a clustering of the identified stakeholders in each of the LL. The Stakeholder clustering aims to cluster the stakeholders in 2 categories:

- the **Key Stakeholders for the use-case Implementation:** all stakeholders actively involved in setting up and running the business during the implementation period.
- the **project relevant stakeholders:** all the stakeholders identified as potentially relevant or interested in a potential integration of the use-case BM after the project phase.

The key stakeholders will be validating the specific use-case BM while the project relevant stakeholders will be addressed with the generic BM for the Area targeting the interest and potential in future implementations. Therefore, the project relevant stakeholder will be targeted in WP8 during the development of the Generic BMs. The interviews with the key stakeholders are planned to be held during August 2024. An insight of the stakeholder clustering is provided below.

Hamburg & Istanbul

In both Hamburg and Istanbul, all key stakeholders to run the use-case are identified and actively involved in the preparation of the implementation. The number of stakeholders involved is low and many are part of the consortium, making it easier to conduct in-depth interviews focusing on how well the current BM / Governance model matches their expectations for the Implementation phase. Since the interest of the stakeholders is already confirmed, the goal of the interviews is to validate the current BM while focusing on potential missing elements, on expectations regarding the outcome, foreseen gains / added value brought by the use cases, and the assessment of the economic viability as well as on the interest in continuing the business after the project and the assessment of the scalability of the use-case. Finally, the interviews will also try to assess some frameworks around the governance model / partnerships focusing on the envisioned role of the municipality and reviewing the preliminary governance model developed in T5.3.

Hamburg	use-case 1	DPDHL, OHB, HAM
Istanbul	use-case 1 & 2	MIGROS
	use-case 3	MIGROS, ILETMEN, IMM

Table 18: Relevant Stakeholder Hamburg & Istanbul

Logroño & Nantes

In Logroño and Nantes, the number of use-cases and related stakeholders targeted for the implementation is higher. Additionally, there are more pending confirmations of interest to participate within the frame of the Implementation period from stakeholders. Finally, some Use-cases are still in the creation phase and do not have a finalised agreed process or outline. Therefore, for some use-cases, it would be more challenging to conduct specific interviews with the key stakeholders. Nevertheless, it was agreed to try to interview all potential key-stakeholder targeting current interest, concerns, and requirements for the use-case implementation phase. To support the process, CBS mapped different possibilities for BMs around the primary use-case description to assess and support a compromise on suitable, feasible and interesting BMs for the stakeholders. Therefore, the interviews with stakeholders with pending confirmation will highlight different version of the use-case / BM and focus on narrowing down the most appealing version for the stakeholder. The goal here is to find an agreement and aim for a confirmation of interest and participation.

Logroño	use-case 1	DHL, LGN
	use-case 2	LGN, DHL, Riofarco, Jimeno Tagus
	use-case 3	LGN
Nantes	use-case 1.1	Toutenvélo, Heppner
	use-case 1.2	Triporteur Francais / DB Schenker
	use-case 2	Nantes, Chamber of Commerce
	use-case 3	Nantes, Triporteur Francais

Table 19: Relevant Stakeholder Logroño & Nantes

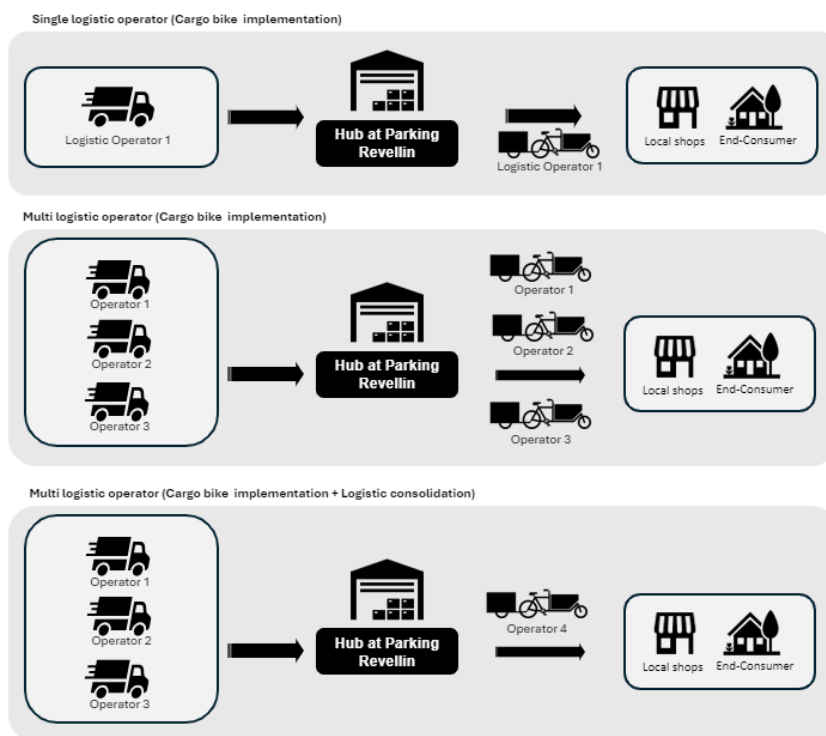


Figure 21: Example: Various possible levels of consolidation for LGN use-case 1

5.5.2 WSs & ON-SITE VISITS

The WSs (WS5) are going to take place in October 2024. The objectives of the WSs are to review and approve the BMs for the use-cases, with a specific focus on the Governance model and Cost-Revenue structure. Additionally, the WSs will be combined with on-site visits in the use-case implementation area to have a hands-on discussion about the process during the implementation and operation phase of the business. For each LL, the WS objectives will be planned around the individual needs of their use-cases and the results from the preliminary interviews held in August.

LL	Date	Stakeholder targeted
Istanbul	31 st October	MIGROS, ILETMAN, Istanbul municipality, NGS, GGI
Hamburg	21 st -22 nd October	OHB, DPDHL, Hamburg municipality, NGS
Logroño	29 th October	DHL, San Blas market, RIOFARCO, Logroño municipality, local pharmacies & orthopedic shops, CPAER, COYETERO
Nantes	8 th October	Toutenvélo, Heppner SEMITAN, Logistic / Cargo bike operator, NANTES Tripoteur Francais, NANTES, Logistic / Cargo bike operator

Table 20: Overview WS October 2024

5.5.3 BM ASSESSMENT

HAM supported by LIHH, NANTES, IMM and LGN will assess the suitability of the WP5 BMs with the local stakeholders and their network. In preparation for that, all partners met for a brainstorming session to assess and identify key areas and factors to consider during the assessment. During this session, seven key areas and related factors were identified:

1. Alignment with local needs: Does the BM address key needs or challenges identified by the community & local stakeholders?

2. Governance model: Have roles and responsibilities been clearly defined and allocated among the partners?
3. Partnership Objectives & Outcome: Are the objectives of the (private public) partnership / collaboration clearly defined and aligned with the interests of all stakeholders involved?
4. Regulatory Compliance: Does the BM comply with relevant local regulations and legal requirements?
5. Economic Viability: Is the BM financially sustainable in the local market context?
6. Environmental and Social viability: Does the BM provide the required environmental and social benefits to the community?
7. Long term Impact & Scalability: What are the potentials for a long-term implementation and partnerships and are there opportunities for scalability?
8. Alignment with project KPIs

The goal of this assessment is to evaluate the alignment of the BMs with the local challenges and needs identified at the outset of the project. The results aim to highlight the areas where the use case can effectively address these challenges, while also identifying potential gaps in delivering the intended added value. This reflection will guide further development and ensure that the BMs are not only relevant but also impactful in meeting the specific needs of the local stakeholder and the community.

Within the months of October-November, HAM will develop and finalize an assessment framework to be followed during the final evaluation process of the BMs.

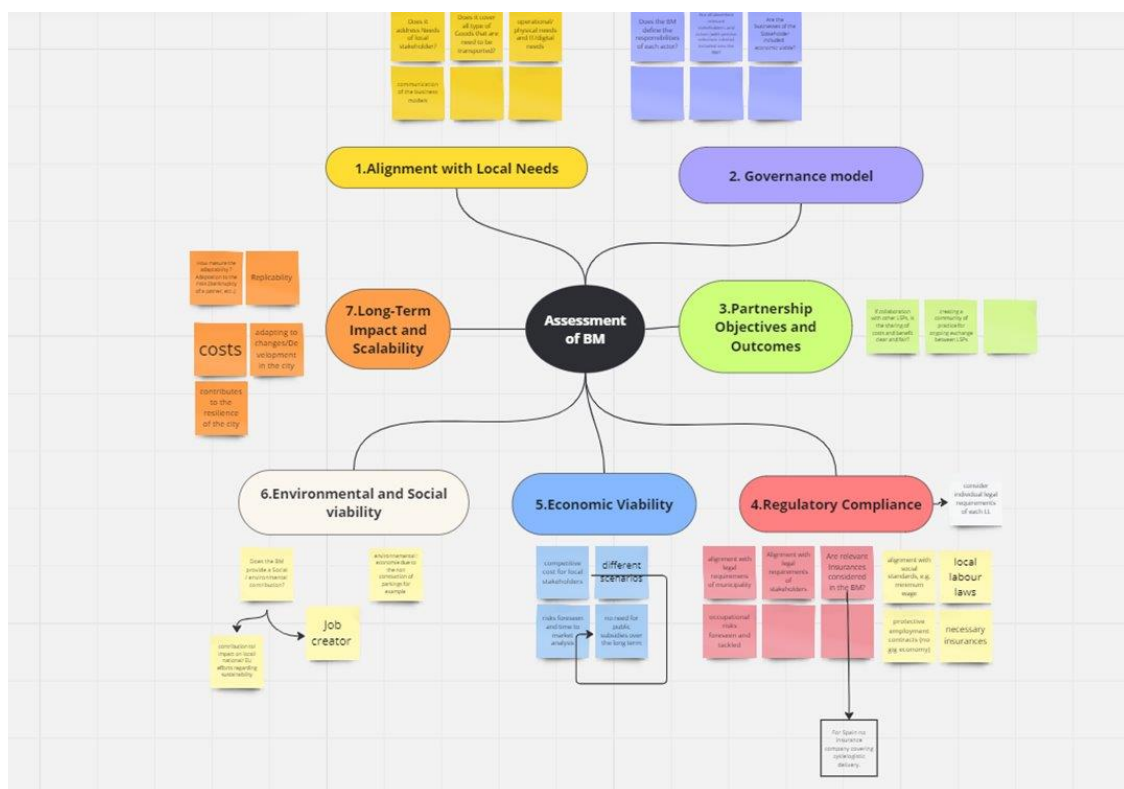


Figure 22: BM-Assessment Brainstorm in MIRO

6 CONCLUSION

The deliverable titled "**Co-Creation Methodologies for Stakeholders and Business Development**" documents the process undertaken to engage stakeholders through various co-creation WSs within Work Package 2 of the DECARBOMILE project. The primary focus of the co-creation process was the development and definition of use-cases, following these steps:

1. Systematically identifying and mapping relevant local stakeholders to ensure comprehensive engagement.
2. Engaging and recruiting use-case relevant stakeholders
3. Understanding specific local needs and challenges
4. Collaborative development of actionable roadmaps and strategies for stakeholder engagement
5. Ensuring that the defined use-cases and BMs align with stakeholder requirements, needs and challenges, and project objectives

This deliverable presents the methodologies employed for stakeholder engagement, detailing the specific tools developed and showcasing the results achieved. The work described set the baseline for the work in all the Task of WP2, especially for T2.2 including the analysis of local needs and challenges and the development of the use-case definitions.

Key outcomes:

1. **Enhanced Stakeholder Engagement:** The WSs created a platform for stakeholders to express their views, leading to a more inclusive and transparent development process. This engagement has been instrumental in building trust, ensuring alignment, and fostering a sense of ownership among participants.
2. **Innovation in use-case Development:** The co-creation approach stimulated creative thinking and the cross-pollination of ideas, resulting in use-cases that are not only feasible but also tailored to the specific challenges faced in the energy sector.
3. **Strengthened use-case & Business Development Strategies:** By incorporating stakeholders' insights directly into the use-case and BM development process, the project identified opportunities for growth and collaboration that were previously unexplored. This led to the creation of more robust and sustainable BMs that align with the market's evolving demands.
4. **Scalability and Replicability:** The methodologies applied in this project showcased the potential for replication across various local contexts. The insights and frameworks established here can serve as a blueprint for other projects seeking to integrate stakeholder input into their use-case & BM development cycles.

Challenges and recommendation

As explored in Chapter 5, the project faced challenges within the engagement process. Given the dynamic and international context, the strategy needed to consolidate different local contexts and development paces. Therefore, it is recommended to adapt the methodology to the project's specific context and continuously monitor the needs and challenges of project partners and external stakeholders throughout the stakeholder engagement process. Nevertheless, the stakeholder engagement strategy successfully secured a satisfying engagement rate during the use-case definition process within WP2 in each of the LL.

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ANNEX

The annex will provide the following documents:

- A) WS overview Gant chart
- B) Example of WS Attendance sheet
- C) Example of WS Invitation Email
- D) Example of WS preparation Checklist
- E) WS Guideline KoM
- F) Reporting template KoM
- G) WS Guidelines WS2
- H) Reporting Template WS2
- I) Results WS2 (Action Frequencie Table & Roadmap of each LL)
- J) use-case Action Plan
- K) Example for Action Calander of each LL
- L) Reaching unreachable Stakeholder WS Templates
- M) WS Guidelines WS3
- N) WS3 Brainstorming-Templates
- O) Reporting Template WS3
- P) Interview Guideline for Validation interview (T2.5)

Task/Theme	Task 2.1 Identification and involvement of local stakeholders	Task 2.2 Analysis of local needs and co-design of the Use Cases with local stakeholders	Task 2.3 Empowering and engaging local businesses towards delivery system chains	Task 2.4 Collaborative recommendations for the implementation strategy of the demonstrations	Task 2.5 Validation of the sustainability of business model with local stakeholders
Task Leaders / Other Partners Involved	IT, CABS, TMTX, LGN, SCU, IMMA, UBC, RCB, IDCAR, CAPIT, TUHH, LGN, CAPIT, IDCAR	NANTES, IT, LIHH, GGI, HAMA, UBC, RCB, TMTX, LGN, IMMA, SCU, GETAFE, CABA, TUHH, IDCAR, CIBS, CAPIT	UBC, NANTES, IT, LIHH	LIHH, HAMA, CABA, RCB, TMTX, MGS, NANTES, LGN, TUJ, IT, CAPIT, CIBS, INT, DPDIH, OHB, IMTA, UBC, CABA, RCB, IDCAR, SCU, MIGROS	CIBS, IT, CABA, IDCAR, UBC, RCB, HAMA, NANTES, RCB, LGN, IMMA, LIHH, TUHH
January	Kick off Meeting / WS1 Hamburg 20.02.2023 Istanbul 25.02.2023 Logrolo 05.07.2023 Nantes 01.03.2023				
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B)



Decarbonising the Last Mile of Logistics

DECARBOMILE (No, Type) Attendance/Consent Template

Type of Meeting	
Date/Place	
Authors	CBS, Isabel Froes, Ben Hales
Status	Draft
Due date	
Document date	
Version number	
	This project has received funding from the European Union’s Horizon Europe Research and Innovation programme under Grant Agreement No. 101069806. This output reflects only the author’s view and the European Union cannot be held responsible for any use that may be made of the information contained therein.

PARTICIPATION LIST

Organisation	Name	Date	Signature

By signing this document, I understand and accept that a minimum of personal data (email address, date/time, images) are recorded by the host server at the premises of the (name of the organisation) and protected by the General Data Protection Regulation (GDPR). They cannot be used for purposes other than the one for which they were gathered (to generate an organisation's profile and identify stakeholders' priorities in order to create an efficient communication within the project stakeholders). They are for the exclusive use of their recipient and subject to confidentiality. They will be deleted within a maximum period of 5 years after the end of the project.

C)

E-mail - for Stakeholder engagement KOM to be translated

Please translate this mail to your local language to engage with your stakeholders.

Subject line: [DECARBOMILE] Living Lab Kick-off Meeting & Project Presentation

CC: *who will be in cc?*

Dear xxx,

We are reaching out to you to introduce you to the DECARBOMILE project, which could be of high interest to you. To move towards the project goals and a valuable outcome, the project is engaging relevant stakeholders in the field of decarbonising last mile logistics. Therefore, we are very interested in your activities and potential contribution to the project's goals.

About the project:

Gathering 31 partners from ten different countries, DECARBOMILE aims to trigger an unprecedented improvement of green last mile logistics in Europe. To reach that goal, DECARBOMILE relies on a strong experience of decarbonising urban logistics through European initiatives such as CIVITAS. Partners will build upon all previous results to develop improved delivery methods, tools, and methodologies, and implement them across Europe. The solutions developed in DECARBOMILE will demonstrate the full potential of decarbonised last mile logistics in four living labs (in Hamburg – Germany, Istanbul – Turkey, Logroño - Spain, and Nantes – France), and four satellites (Getafe - Spain, Ghent – Belgium, Sarajevo - Bosnia and Herzegovina and Tallinn - Estonia) will be involved at a smaller scale to test and study the solution in their own local contexts.

To be successful in its implementation, DECARBOMILE will rely on developed methodologies to implement the new solutions and delivery methods in collaboration with all relevant local stakeholders, based on their needs and behaviours. The relation with and between stakeholders will be facilitated by the creation of a collaborative urban consolidation logistics framework that will include a digital platform, methodologies for collaboration, and ICT and IoT tools. This common framework, along with tailored innovative business models and recommendations on local policies, will allow for a strong collaboration during the project, allow to learn more about the end-users' needs and behaviours. The delivery methods will be strongly improved with urban consolidation centres, micro urban consolidation centres including smart lockers, innovations on cargo bikes and how they can be used with load pooling for instance, electric barge and more. The goal is to use and improve existing solutions and allow their interoperability and modularity to improve their efficiency and use their complementarity.

To facilitate this and to collect insights on a local level, we are reaching out to you to understand your activities and potential contribution to DECARBOMILE. Therefore, we hope you are interested and kindly ask you to go through the attached survey document and state your possible participation in the activities of the project.

- Please do not hesitate to contact us for further information.
- Find further information about the project [here](#) or follow us on [LinkedIn](#) for the latest updates.

We look forward to hearing from you and to you becoming part of DECARBOMILE journey.

Kind regards,

LL names and signature

D)



Decarbonising the Last Mile of Logistics

DECARBOMILE Workshop Preparation KOM-Stakeholder Engagement

Type of Meeting	KOM Stakeholder Engagement
Date/Place	January-March 2023
Authors	Katharina Beck (TUHH), Isabel Froes, Ben Hales (CBS)
Status	Final
Due date	25/01/2023
Document date	20/01/2022
Version number	1.0
	<i>This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n°101069806. Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains.</i>

You can find all information also in the [Guidelines Document](#)

PREPARATION OF WORKSHOP		
What?	Further instructions	Done
Decide on a date and book a room	Decide on the date and book a room, arrange catering etc.	
Invitations to Participants	E-Mail template provided Send invitation to the participants, fill in the Guidelines document with the number of participants, date of the workshop (Chapter 4)...	
Allocate the roles of facilitators in workshop	You will need at least 2 facilitators for the workshop (one main and one supporting facilitator), ideally, you have 1 facilitator / small group (1 facilitator / 8-10 participants) Remember to take pictures of the results!	
Prepare Consent Document	Fill in the yellow highlighted passages in the document DECARBOMILE Meeting attendance consent and save it with the name of the living lab Include the list of participants in the Meeting attendance consent Print out the document once and let it sign before or at the beginning of the workshop	
Prepare a presentation about DECARBOMILE and your Living Lab	Prepare a presentation of your LL and Use Case	
Prepare Material for the workshop	Print out the following documents in A3 or larger if possible: - Brainstorming Activity (in the amount of the groups)	

	- Ranking Activity (in the amount of the groups)	
Other Material	- Post-Its - Pens - Sticky dots	
Prepare Name badges (optional)	If you want, you can prepare name badges	

<u>During the workshop</u>		
Take pictures		
Take notes		
Coordinate the groups		

<u>After the workshop</u>		
Write participants	Write participants thanking them for their participation and list next steps.	
Protocol of the Workshop (in English)	Fill out template (SharePoint) with workshop results and plan for next steps within THREE days after holding the workshop.	
Images and recording	Upload images and recordings (if online) to the repository (SharePoint)	



Decarbonising the Last Mile Logistics

DECARBOMILE T2.1 Workshop with Living Labs & Stakeholders – Kick-off Meeting (KOM) Facilitation Support Document

Type of Meeting	KOM preparation
Date/Place	14/02/2023
Authors	Isabel Froes, Ben Hales (CBS), Katharina Beck (TUHH), Manon Levrey (IT)
Status	Final
Due Date	25/01/2023
Document date	14/02/2023
Version number	1.1
	<i>DECARBOMILE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n°101069806. Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains.</i>

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2 PURPOSE OF THIS DOCUMENT FOR THE STAKEHOLDER KOMs

All LL & SCs have been invited to arrange and facilitate KOMs with their local stakeholders. The purpose of this document is to provide guidance on how to run these meetings, including the goals and the outcome of the KOM.

The KOMs with local stakeholders will provide us with an overview of:

- Knowledge, level of participation and engagement of local stakeholders in all LL/SCs,
- The understanding of the role of each stakeholder and how they want to be involved,
- The next steps of the workshops with the local stakeholders.

All KOMs will be facilitated **in the local language** of the LL & SCs, as this will be more inclusive and lead to better results and more fulfilling discussions.

3 THE LL KOM PRACTICALITIES

3.1 WORKSHOPS DURING DECARBOMILE

Throughout the project, each living lab will be expected to host a number of workshops, including the KOM, engaging their local stakeholders in the project's process. **This document will focus on the KOM only.** Further information regarding future workshops will be finalised and shared with you once available.

The consortium members who will participate in these KOMs are the LLs + SCs: **HAMBURG, NANTES, LOGROÑO, ISTANBUL** + CBS, IT, TMTX / CAPIT, TUHH, + local partners from each LL (listed below).

Hamburg: LIHH, TUHH, DPDHL, OHB

Nantes: Fleximodal, IMT Atlantique, Triporteur Nantais, ID4CAR

Logroño: Intelligent Parking

Istanbul: MIGROS, SCU

NB: Satellite Cities - **GETAFE, SARAJEVO, TALLINN, GHENT** - will have the opportunity to host a KOM if the partner believes it is relevant.

3.2 KOM GOALS

The goals of the workshop are the following:

- To contribute to the goals of the project with this exercise by creating awareness of the project among local stakeholders (business, academia, citizens, public authorities, etc.)
- Identify six key needs and challenges related to last mile logistics in the local context and based on the use cases that the living lab will present.
- Identify the level of participation of stakeholder interested in engaging with the living lab/satellite city activities and use cases.
- Set up the plan for stakeholder engagement – next steps.

3.3 PREPARING FOR THE KOM

- Set up a date and send out an invitation email to all stakeholders ([template provided by Copenhagen Business School \(CBS\)](#)). Each stakeholder listed in the stakeholder mapping process should be invited to join as the KOM will present the project to all and allow space for questions and concerns. Please communicate to the stakeholders that the workshop will take around two hours to half a day – this will depend on the number of stakeholders you intend to invite. If you need any guidance, please reach out to CBS, IT, or TUHH.
- Book room/location, arrange coffee, water, etc. Each LL has a dedicated budget under WP2 for these requirements.
- **The preference would be to hold these workshops in person**, however, if you feel the meeting should be online, please consider the following: Zoom/Teams link, Access to Miro or other virtual whiteboard software, ability to record the session. If you require assistance with this, please reach out to IT or CBS. Please let both CBS and IT know well in advance of this.
- Prepare materials (for printing, in case of physical meetings; online files in case of online meeting). You will find the full list of documents to print in the [SharePoint](#) folder. The exercises can easily be replicated using a whiteboard, however, if this is not possible, we recommend printing in A3.
- What to print: Brainstorming Activity (amount: number of groups + 2 for the facilitators), Ranking Activity (amount: number of groups + 2 for the facilitators), **DECARBOMILE_Meeting_attendance_consent (amount: 1) - THIS MUST BE AVAILABLE AT THE REGISTRATION DESK FOR ALL STAKEHOLDERS TO SIGN ON ARRIVAL!!**
- Decide who will be the main facilitator and the supporting facilitator. The supporting facilitator should be responsible for taking pictures, helping the main facilitator in the activities – making sure the right colour Post-it notes are being used, etc.
- If a hybrid meeting, please make sure to have at least three facilitators two for the physical space and another one for the online part.
- Depending on the size of the group, the activity can be run as one or in separate groups. **If there are up to 12 people, the workshops activities can be done as one group with the facilitator coordinating it, if more people than that, then we advise breaking the participants into groups of 5-10 people**, where each group will do the Brainstorming and Ranking and then all the results will be gathered by the facilitator. Ideally, every small group has its own facilitator, but one facilitator can also coordinate two groups.

3.4 THE KOM FORMAT

Before the workshop (on the day):

- Please make sure everyone signs the document stating their consent (sent by CBS) to recording and image material (this is to be [uploaded to the SharePoint](#) together with the [reporting template](#)).

During the workshop:

- Please remember to record the session if online.
- Please take pictures of the sessions, including the boards after each activity.

Workshop agenda:

10 min	People presentation
10 min (+ 10 mins)	Project presentation – Living Lab/Satellite City use cases and purpose of workshop (Space here for any questions from the audience about the use cases – optional time which can be taken somewhere else if needed)
20 min	Brainstorming in small groups on key issues relating to the needs and challenges of the stakeholders regarding Last Mile Logistics (remember to take pictures when done) based on the Living Lab/Satellite City use cases > See section 3.5 below to help you out with tools and methodologies for this part of the workshop
15 min	Present and discuss/ clarify identified issues
10 min	Break (supporting facilitator: take pictures of the key needs and challenges)
20 min	Ranking the identified needs and challenges in small groups in the Relevant Ranking table (remember to take pictures when done)
10 min	Discuss/ Clarify and select the most relevant ones
10 min	Break
15 min	Discuss/align expectations (see below)
15 min	Lay out the plan for next steps (see below)
5 min	Wrap up

Note: These are suggested times, the discussions sometime can take a bit longer and if they are on topic, they are welcomed, however, if they derail off-topic, then they should be politely interrupted and guided back into the local case/topic discussion.

Post workshop:

- Write participants thanking them for their participation and list next steps.
- [Fill out template \(SharePoint\)](#) with workshop results and plan for next steps within THREE days after holding the workshop.
- Upload images and recordings (if online) to the repository (SharePoint)

3.5 DISCUSS/ALIGN EXPECTATIONS & NEXT STEPS

The final section of the workshop should clarify the following with the stakeholders present:

Expectations of the Stakeholders:

- How much engagement each stakeholder would like in the project. Some stakeholders may simply want updates from the project as to how it is progressing, whereas others may want to take part in future workshops to assist in the development of the use cases etc. Finding this out is important for the future workshops.
- Possible option of involvement according to the Survey:

- Transport & Logistic Operators: Workshops (at project level), workshops (at city level), Events (webinar, conference...), Testing tools and/or vehicles improving operations; Testing tools improving decision making by analysing data of your activity; Connecting your tools to other systems and data bases that help your operations; Uncovering opportunities to get more value from data of your activity
- Economic Actors: Events (webinar, conference...), Workshops (at project level), Workshops (at city level)
- Depending if you have the results of the survey: Each stakeholder should shortly summarize their expected involvement. Interested participants should also add a X in the Meeting attendance consent document.
- To collect results about the future engagement of stakeholders, feel free to use software such as [Slido](#). Reach out to CBS, TUHH or IT if you wish to utilise this and would like some support.
- Collection (on Post-Its): Are some stakeholders missing in the workshop that should be included in the upcoming workshops/project progress?
- Collection (on Post-Its): Potential risks, what do we need to consider if we want to implement our solution/use cases, what could be potential pitfalls

Next steps:

- The results of the KOMs will be compiled and analysed in bulk by CBS. Within the results, universal/common needs and challenges will be highlighted to be taken forward to the next stage of workshops, as well as highly relevant local needs and challenges from each LL. The next workshops will address how to tackle these needs and challenges and will continue to engage with the local stakeholders.
- The timeline of future workshops: The next workshop will take place around June 2023, coinciding with the start of T2.3: empowering and engaging local businesses towards delivery system chains, as well as business development. I have included additional information in 5. Annex section of this document.
- Goal of the (currently planned) upcoming workshops: Engaging relevant stakeholders, Business Development, Evaluation of the project
- **Current plan of the upcoming Workshops:** [DECARBOMILE GANT workshops.xlsx \(sharepoint.com\)](#)

3.6 SUGGESTED TOOLS & APPLICATION

In the following you can find the tools to use during your workshops. They are easy to replicate simply with Post-it notes and a white board. You can find the online version and further description [here on MIRO](#). You have access to this board without an account, however, if you are running the KOM online please register for free on Miro in case you do not have an account yet – then you will get access to the tools.

Tool 1: NEEDS & CHALLENGES BRAINSTORM

Tool 2: Relevance Ranking

Instructions

What is it?

Brainstorm on key needs and challenges related to last mile logistics in the local context. Think of all related actions, problems, needs, challenges etc. that come to your mind.

How it works

- Write down your thoughts about key issues on a post-it and place it in the respective column.
- Please make sure to write one need or challenge per post-it.

Description

Needs:

"Need Statements are about defining what the problem is, without including a solution."

What is it that you as a stakeholder need from LSPs in your local region? What characteristics do you find problematic about last mile logistics? The focus here is to not think about solutions, just the needs that relate to you and your local region.

E.g. The need to install the depots (UCCs)

Challenges:

"Challenge Statements are intended to provoke perspectives of the unmet need."

What challenges do you face as a local stakeholder in the context of last mile logistics? What differing perspectives can you see about these challenges?

E.g. The permits, peoples acceptance etc.

Post-its



Relevance Ranking

Rank the identified issues according to relevancy.

	Needs	Challenges
High Relevance		
Medium Relevance		
Low Relevance		

Send feedback miro

Instructions

What is it?

Take the identified needs and challenges from the previous brainstorming exercise and place them according to relevancy and identify three key pressing needs and the three key pressing challenges.

How it works

- Take the post-its with the identified needs and challenges and place them on the relevance ranking canvas.
- The scale goes from low relevance to high relevance and the post-its can be placed freely in between.
- The ranking will be done as a group or in smaller groups depending upon number of attendees.

Description

High relevance: Highly relevant issue which needs to be addressed immediately with special attention.

Medium relevance: Relevant issue which needs to be addressed.

Low relevance: The issue is relevant but not urgent.

4 TIMETABLE FOR KOM

Please fill out the following table as soon as you have the information regarding the upcoming kick-off meeting in your LL/SC if relevant.

	Workshops with Stakeholders		
Living Lab Case	Number of Stakeholders invited for workshop	Number of attendees (from outside the consortium)	Date & Time
Hamburg		18 (7)	20 February 2023 @ 15:00
Istanbul		Approx. 80 (XX)	25 January 2023 @ 13:30
Logroño		Approx. 30 (25)	23 February 2023 @ 08:45
Nantes		Approx. 25 (20)	1 March 2023 @ 09:00

5 ANNEX

Further information regarding the workshops planned for June & October 2023 come directly from the Grant Agreement, T2.3 & 5.2. Included below are texts directly from the agreement that will give you some idea of what to expect in the two workshops of 2023.

T2.3: The goal of the co-creation workshops is to bring people together, to create a common agenda, and to establish long-lasting networks. Through the workshops, **CBS** and **TUHH** will carry out a value proposition assessment, which will include the analysis of the socio-economic context in the pilot regions, assets and obstacles that could empower or restrict businesses from achieving success (e.g., regulations, lack of integration, cultural and social perceptions and trends) - *essentially the needs and challenges identified in the KOM*, as well as enabling aspects that might create growth opportunities. The first round of workshops will be followed by a second round of workshops, where citizens, policy makers and local businesses will be invited to share their ideas for the creation of new networks and processes that can positively impact the mobility and transportation of goods and facilitate the creation of related businesses in the pilot areas.

T5.2: Based on the added-value service identified and the Cost-benefit Analysis of each use case, **CBS** will supervise the business model definition of each living lab (**D5.1**). Existing methodologies, tools and business models based on state-of-the-art frameworks for business modelling and other innovation tools will be taken into consideration. To make sure that the business models are indeed in line with local contexts, **HAM**, **LGN**, **IMM**, **NANTES**, **TLN**, **SARA** and **GETAFE** as support will also be involved in defining the business models for their city's realities. The design of the business models will also be made in cooperation with **IT**, **UBC**, **LIHH**, **ID4CAR**, **CARA** and **RCXB** and validated with the local stakeholders (**T2.5** - M19-24).

The validation process with local stakeholders is currently scheduled for August 2024. This will be workshop #3.

Further details regarding exactly what activities will be done in these workshops will be sent to all LL/SCs at a later date. If you have any queries or concerns, please reach out to IT or CBS.

F)



Decarbonising the Last Mile of Logistics

DECARBOMILE KoM-Reporting Template

Type of Meeting	LL KOM – LL NAME
Date/Place	
Authors	CBS, Isabel Froes, Ben Hales
Status	Draft
Due date	
Document date	28/08/2024
Version number	
	<i>This project has received funding from the European Union’s Horizon Europe Research and Innovation programme under Grant Agreement No. 101069806. This output reflects only the author’s view and the European Union cannot be held responsible for any use that may be made of the information contained therein.</i>

Reporting Template

The table below should be filled out, sent back to CBS, and uploaded to the SharePoint folder

Time	Description
Living Lab	
Number of attendees	
Which stakeholder groups were represented	For each stakeholder group, please specify: • potential contribution • current level of engagement • desired level of engagement • channel of communication used to reach them
Which stakeholders were not reached and why	
Identified local needs	(please list all of them)
Identified local challenges	(please list all of them)
Which were the prioritised needs?	
Which were the prioritised challenges?	
Ideas to support the development and implementation process, if any were discussed/mentioned during the meeting	
Next Steps	



Decarbonising the Last Mile of Logistics

DECARBOMILE (No, Type) /
Guidelines to Analyse local Needs and Challenges, and Co-design
Stakeholders Engagement plan (T2.3) for the Uses Cases Definition
(T2.2)

Type of Meeting	
Date/Place	
Authors	CBS, Isabel Froes, Ben Hales, TUHH, Katharina Beck, IT, Manon Levrey
Status	Draft
Due date	
Document date	
Version number	1.0



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1 CONTENTS

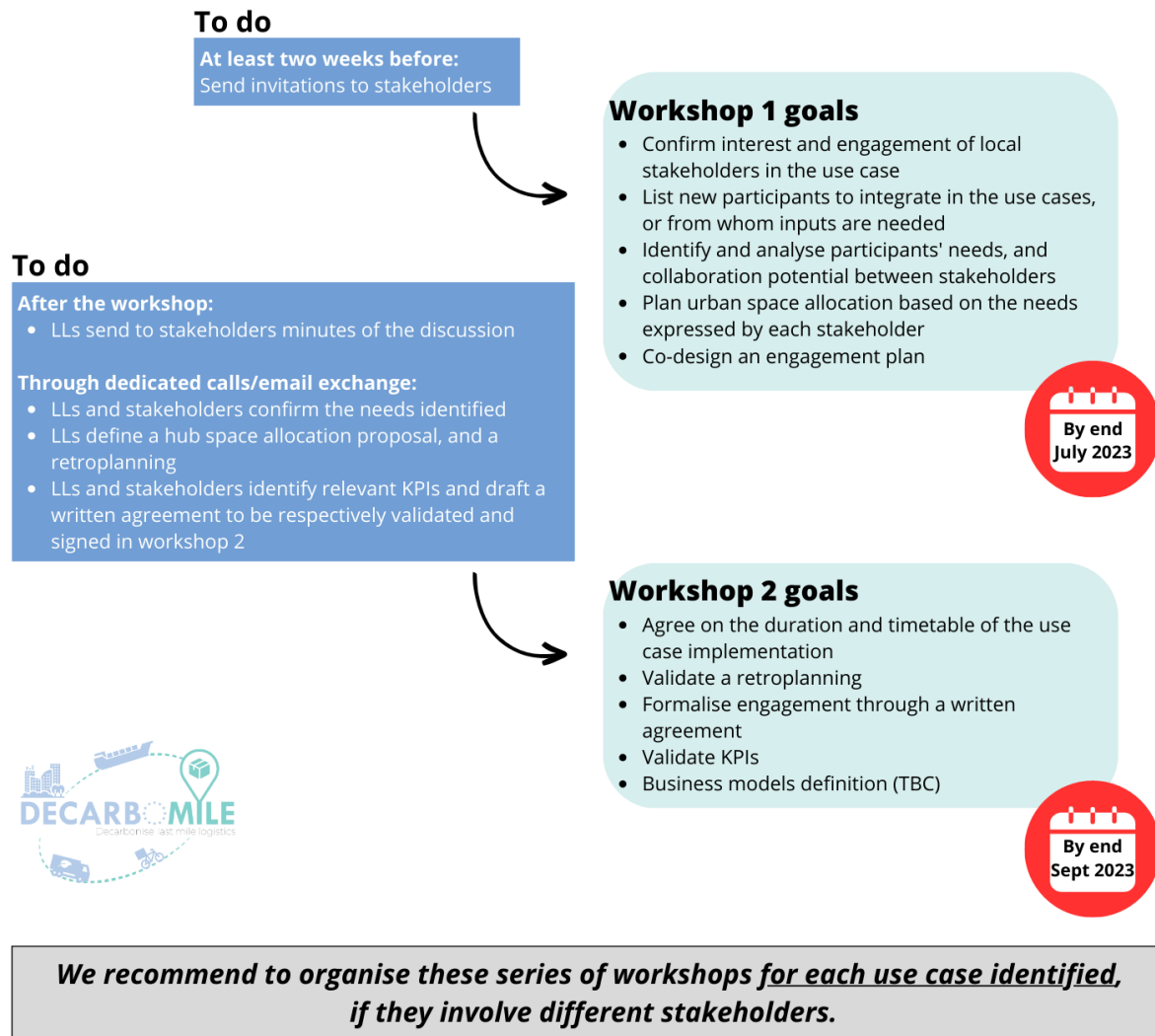
2	The Workshop Practicalities	3
2.1	Preparing for the Workshop	3
2.2	Workshop Goals	4
2.3	The Workshop Format	4
2.4	Suggested Tools & Application	6
3	Purpose of the Training Workshop	Error! Bookmark not defined.
4	Timetable for Workshops	Error! Bookmark not defined.

Following the kick-off meetings in early 2023, Living Labs should now organise working sessions with stakeholders to further discuss and detail each use case. T2.2 (M7-M12) workshops will aim to (i) identify local needs and challenges building on the KOMs results, (ii) define the use cases (including potential interviews and field visits in each LL, and a summary of the type of needs / flows / logistic scheme / geographical perimeter for each use case - which will feed into D2.1). Partners involved in these activities, in addition to the LLs local partners, are: NANTES, UBC, IT, LIHH, TUHH, CAPIT, CBS, TMTX, GGI, and CARA.

In parallel, T2.3 (M10-M18) will identify obstacles and opportunities for local business development, based on each use case defined, through a set of two workshops in the LLs.

We have created these joint guidelines to provide a methodological framework for these upcoming workshops. The below figure represents the different steps (workshops) we recommend finalising (by September 2023) the description of the use cases with local stakeholders.

The goal is to implicate and engage stakeholders in each step of the cocreation process and throughout the implementation of the use cases. For this, it is important to identify **which stakeholders** want to be involved in **which use cases** (bearing in mind that some of them have already been pre-identified during the Kick off meetings held in each LL earlier this year), and **how** (identify the actions, level of engagement, roles, calendar, success criteria, etc.).



2.1 PREPARING FOR THE WORKSHOP

2 THE WORKSHOP 1 PRACTICALITIES

- Set up a date and send out an invitation email (template provided by CBS) – please communicate to the stakeholders that the workshop will take half a day. Preparatory workshops with the internal partners of each DECARBOMILE LL will take place in May, while the workshops with external stakeholder should take place around June / July.
- (Physical meeting) Book room/location, arrange coffee, water, etc.
- Prepare materials (for printing, in case of physical meetings; online files in case of online meeting).
- Decide who will be the main facilitator and the supporting facilitator. The supporting facilitator should be responsible for taking pictures, helping the main facilitator in the activities – making sure the right colour post-its are being used, etc.)

- If a hybrid meeting, please make sure to have at least three facilitators, two for the physical space and another one for the online part.

The first working session to define the use cases and cocreate the engagement strategy has the following goals:

- Analyse local stakeholders' needs and problematics
- 2.2 **WORKSHOP GOALS**
 - Start co-designing the Uses Cases with locals' stakeholders
 - Co-create the engagement action plan amongst the stakeholders for each local use case.
 - Co-define the action plan for each use case, plus next steps.
 - Identify the actions (activities) that need to be done (meetings, workshops, planned communication, etc.)
 - Identify who will participate in the actions and their roles.
 - When and where should the actions take place
 - Identify what needs to be achieved with each action
- Define the action calendar.
- Define the success criteria for each action.

2.3 **The Workshop Format**

Before the workshop:

- Please make sure everyone signs the document stating their consent (sent by CBS) to recording and image material (this is to be uploaded to the repository together with the reporting template). DECARBOMILE_Meeting_attendance_consent_Template_v1.1.docx

During the workshop:

- Please remember to record if online and please take pictures of the sessions, including the boards after each activity.
- We encourage to have participants broke down in small group discussions (around 10) when discussing the use cases, to facilitate the exchange of ideas and relevant inputs. Each group should be led by a facilitator.
 - It is up to the LL to decide how to form the groups: it may be relevant to mix professions in order to encourage trans-sectoral collaboration, or to put together representatives of one profession to consolidate their needs and requirements.
- You may use Post its, flipchart paper and large white papers to structure and take note and the discussions.
- Always spare time at the end of the discussion (10-15 minutes) for each group to provide a synthesis of their exchange to the rest of the participants.

Workshop agenda:

5 min	Welcome
20 min	Use case presentation, including presentation of IT tools (WP3) of potential interest
20 min	Identify which stakeholders want / need to be involved in the said use case
15 min	Set up location criteria
30 min	Discuss consolidation potential of the hub / services between the different stakeholders
45 min	List the needs and related tasks / actions
10 min	BREAK
15 min	Co-creating the Stakeholder Engagement plan: Types of actions and how often
15 min	Present and discuss/clarify identified actions
20 min	Team Alignment Map: What you need to know/do/reach (is needed – success criteria)
10 min	Present and discuss/clarify
20 min	Align results and set them on roadmap
15 min	Set success criteria to each of the events on the roadmap (output x result)
10 min	Present and discuss
10 min	In/out activity for participants, indicate which and how they would like to engage (from the final selection) (remember to take pictures when done)
10 min	BREAK
5 min	Final discussion
5 min	Wrap up

Post workshop:

- Write participants thanking them for their participation and list next steps.
- Fill out template (sent by CBS) with workshop results and plan for next steps within three days of holding the workshop: DECARBOMILE_Reporting Template_Workshop1.docx
- Upload images/photos and recordings (if online) to the repository (SharePoint)
- Set up dedicated calls or follow-up exchanges with stakeholders to:
 - confirm the needs identified,
 - cocreate a hub space allocation proposal and a retro planning of the use case implementation,
 - identify relevant KPIs and draft a written agreement to be respectively validated and signed in workshop 2.

In the following you can find the tools to use during your workshops. You can find the online version and further description here on MIRO (please register for free on Miro in case you do not have an account yet – then you will get access to the tools).

- **TOOL 1: ACTIONS – FREQUENCY – USE CASE – INFORMATION – RESPONSIBLE**

2.4 SUGGESTED TOOLS & APPLICATION

TYPE OF ACTIONS	HOW OFTEN	USER CASE NUMBER	WHAT YOU NEED TO KNOW/DO/REACH	WHO IS IN/RESPONSIBLE

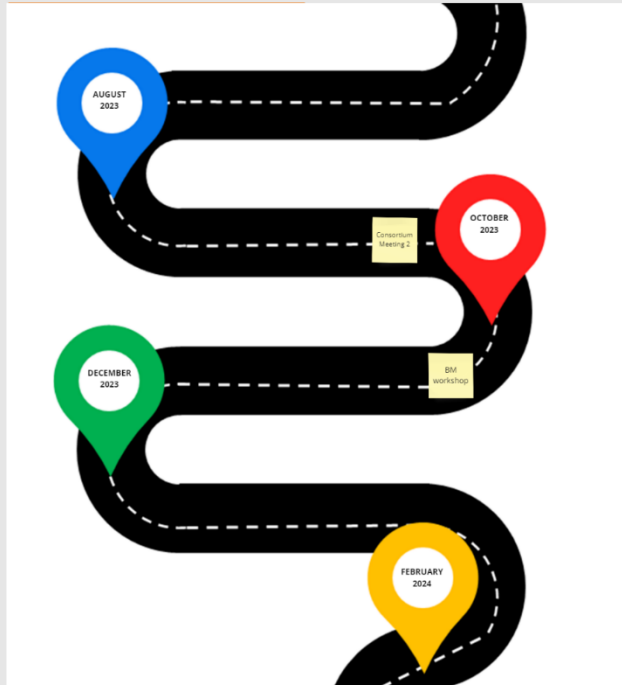
Example:

TYPE OF ACTIONS	HOW OFTEN	USER CASE NUMBER	WHAT YOU NEED TO KNOW/DO/REACH	WHO IS IN/RESPONSIBLE
Email	Every 2 weeks	All use cases	How the project is developing Intervention Dates	Municipality
?? webinar Online Meeting	Once a month	1 3		Partner 2 Partner 3
Workshop	two weeks before the intervention	2		
Physical Meeting Interview Seminar	Once every 4 months			

- Tool 2: ROADMAP & SUCCESS CRITERIA

Roadmap & Success Criteria

Align the actions and information required on the roadmap following the defined frequency and afterwards identify one success criteria per action

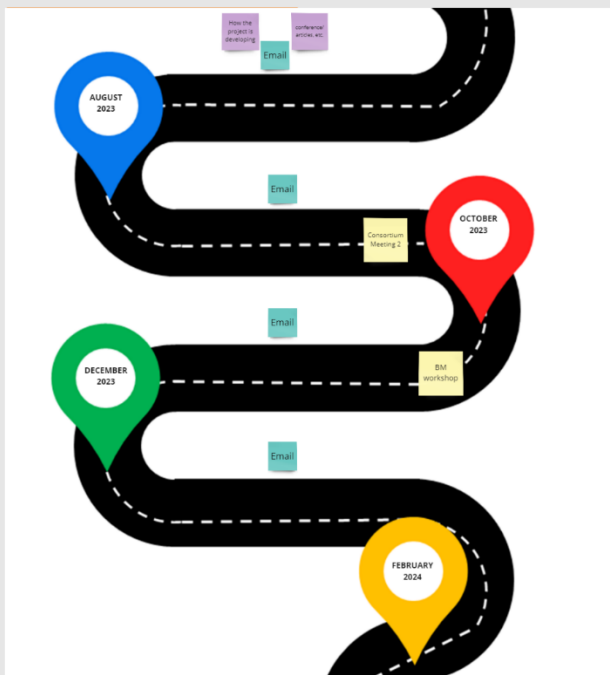


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Example:

Roadmap & Success Criteria

Align the actions and information required on the roadmap following the defined frequency and afterwards identify one success criteria per action

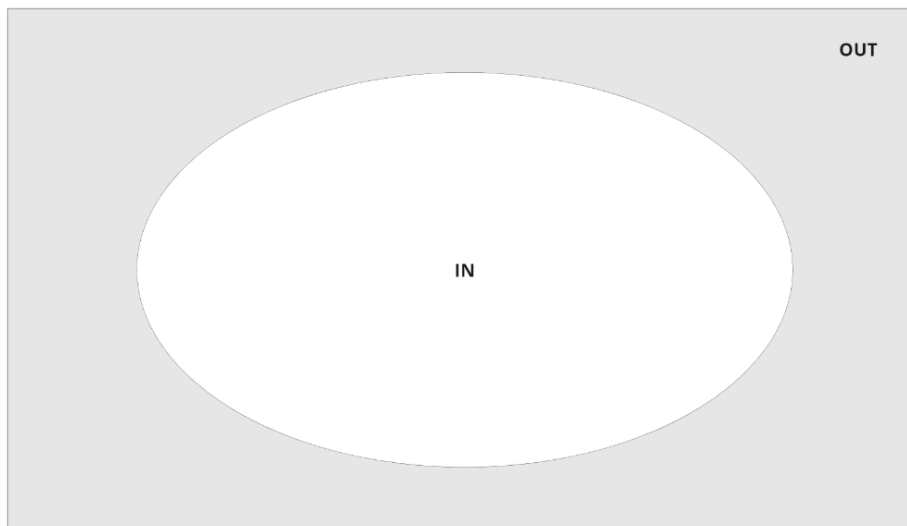


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- **Tool 3: IN /OUT ACTIVITY**

IN/ OUT Activity

Trough which activities can you contribute and how would you like to engage? Are you actively/passively, continuously/ one time etc. contributing?



Regarding the IN/OUT activity, this is the part of the workshop where you run through the activities on the roadmap that has been co-created with the stakeholders. Each stakeholder says how much they are involved in each activity – are they “IN” and to what extent they are in, e.g., actively or passively, how often, etc., or are they “OUT” where they do not want to be involved in that activity. Each stakeholder should use a sticky note for this exercise and indicate how actively they are part of the activity by placing it in the circle or outside the circle. This should give you more of an idea of who to involve in each activity when you come to perform it.

3 TIMETABLE FOR LIVING LABS’ WORKSHOPS

Please fill out the following table as soon as you have the information regarding the upcoming workshops.

Living Lab	Preparatory internal workshop: Date & Time	Workshops with Stakeholders					
		External workshop 1 (by end July 2023): Date & Time	Number of Stakeholders invited	Type of meeting (online/physical)	External workshop 2 (by end Sept 2023): Date & Time	Number of Stakeholders invited	Type of meeting (online/physical)
Hamburg	1 June @ 09:30	4 July (TBC)		physical	TBC (September)		
Istanbul	24 th May @ 10am	9 June @ 9 am		physical	TBC (September)		
Logroño	17 May @ 15:00	5 – 7 June		physical	TBC (September)		
Nantes	1 June @ 13:00	21 & 30 June		physical	TBC (September)		

H)



Decarbonising the Last Mile of Logistics

DECARBOMILE (No, Type) Reporting Template

Type of Meeting	LL Stakeholder Engagement Co-Creation Workshop 1 – LL NAME
Date/Place	xx/xx/2023
Authors	CBS, Isabel Froes, Ben Hales
Status	Draft
Due date	
Document date	28/08/2024
Version number	1.0
	<i>This project has received funding from the European Union’s Horizon Europe Research and Innovation programme under Grant Agreement No. 101069806. This output reflects only the author’s view and the European Union cannot be held responsible for any use that may be made of the information contained therein.</i>

Objective	Description
Living Lab	
Number of attendees	
Which stakeholder groups were represented	For each stakeholder group, please specify: • potential contribution • current level of engagement • desired level of engagement • channel of communication used to reach them
Which stakeholders were not reached and why	
Needs or problems identified (in addition to those identified at the KOM – please elaborate on the more specific needs & problems)	(Please list all of them)
Please explain how the use case has been further defined during this session	
Has a stakeholder engagement action plan been created for the living lab? Is the plan use case specific?	
Please specify the actions within the stakeholder engagement action plan, clearly defining the success criteria and those who are “in”/responsible. Is it possible to include a copy/clear photo of the roadmap and in/out exercise completed during the workshop, however, an English synopsis is preferred.	(Please list all of them)
Any additional comments: Ideas to support the development and implementation process, if any were discussed/mentioned during the meeting Any difficulties or problems that became apparent during the workshop Etc.	
Agreed Next Steps	

1)

COMMUNICATION

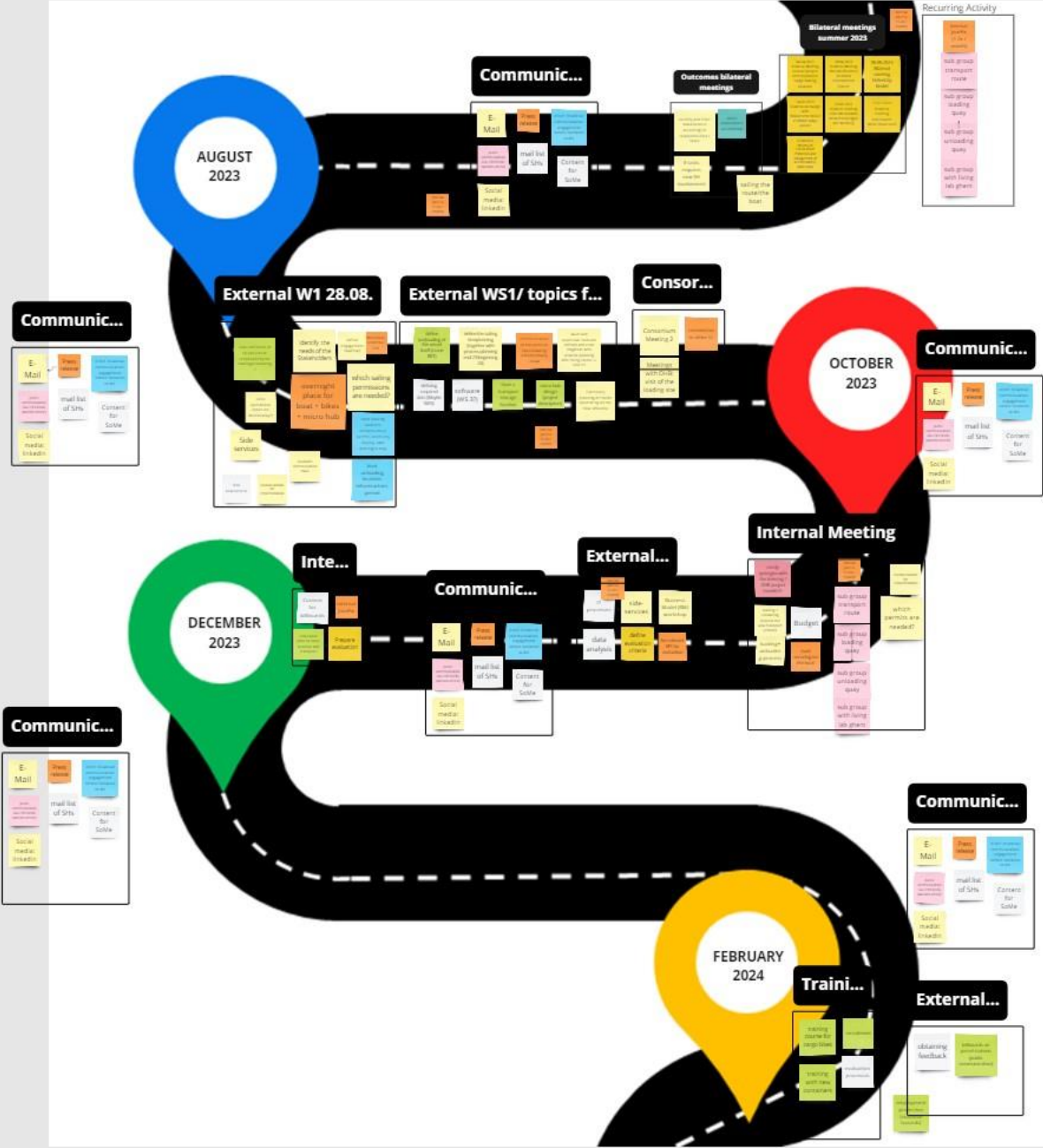
DEFINITION

PREPARATION FOR
INTERVENTION

TRAINING

SECURITY

Hamburg Roadmap

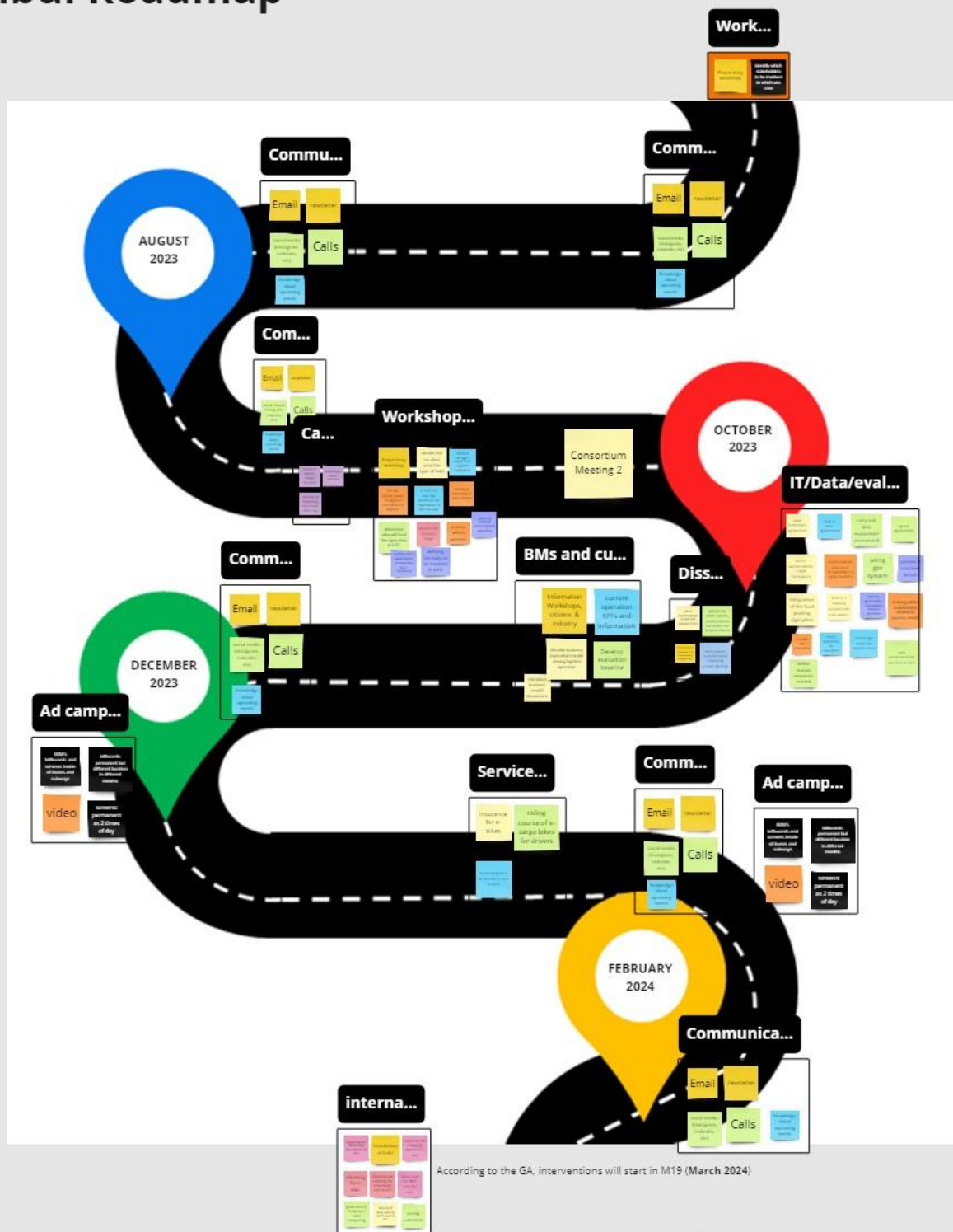


According to the GA, interventions will start in M19 (March 2024)

One post-it per activity type and one post-it per frequency

[illegible]

Istanbul Roadmap



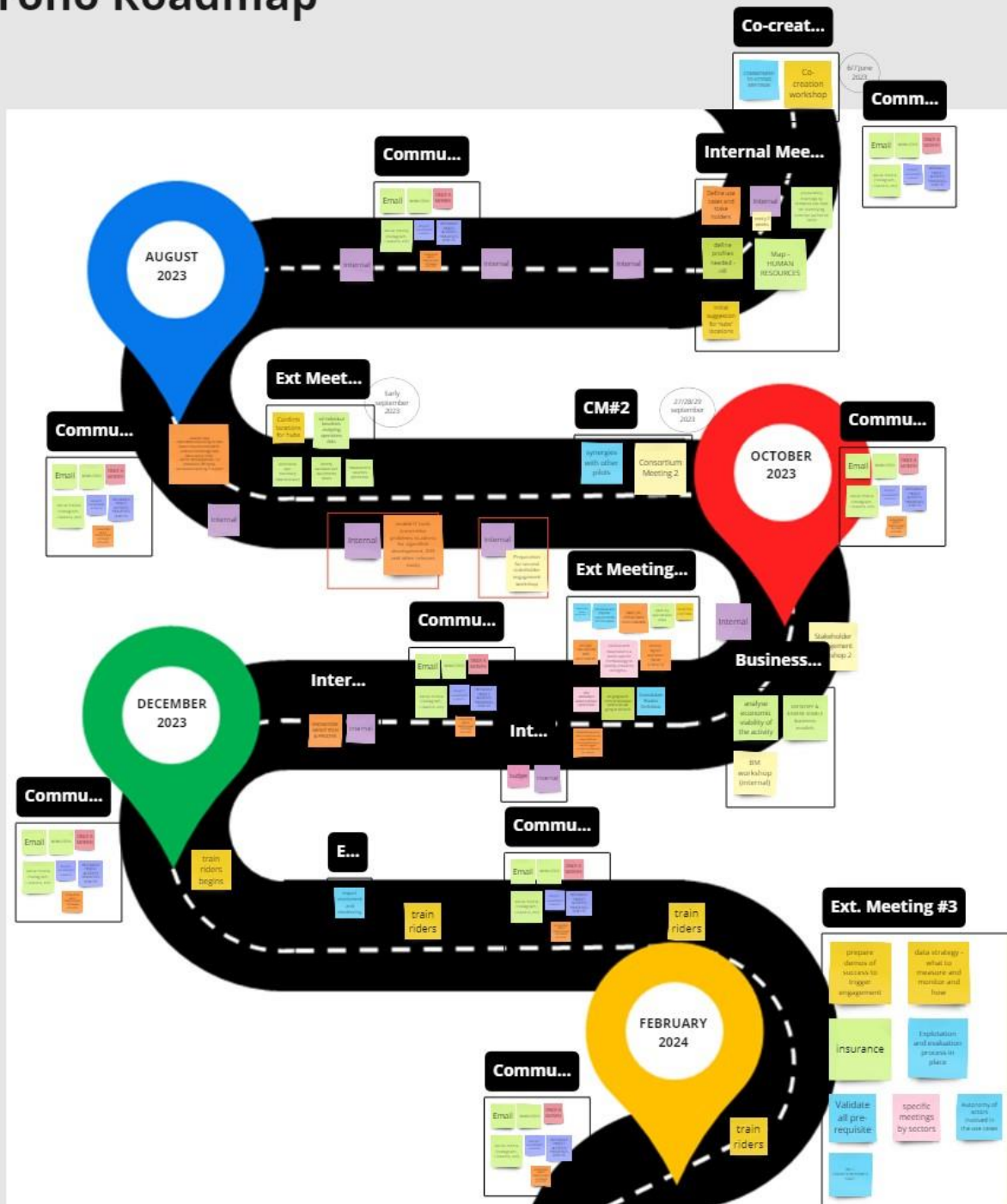
Logroño - Actions and Frequency

One post-it per activity type and one post-it per frequency

TYPE OF ACTIONS			HOW OFTEN	WHAT YOU NEED TO KNOW/DO/REACH	USER CASE NUMBER	WHO IS IN/RESPONSIBLE
COMMUNICATION	contact in local fairs/events	Email	twice a month	Linkedin once a week	PROJECT AWARENESS & REACH COMMITMENT IN THE PROJECT INFO ABOUT PROJECT ACTIVITIES, PROGRESSES, BENEFITS MAKE JOB OPPORTUNITIES VISIBLY KNOWN	
	providers	calls	ONCE A MONTH	ONCE	social support	
DEFINITION	past by operations data	set individual case studies by analysing operations data	Internal : 2 / month	Resources (time, equipment...)	CHOICE OF HARDWARE/COST technical and physical infrastructure for the space synergies with other pilots	
	Subscribers definition	Identify hardware and equipment with needs	External : 1 / 2 month	Internal	Confirm locations for hubs	
INTERVENTION PREPARATION	specific meetings by sectors	little workshops about shared experiences	2 MONTHS BEFORE USE CASES IMPLEMENTATION ~ 2 MEETINGS	Validate all pre-requisite	KNOWLEDGE ABOUT PREVIOUS UPSCALED ACTIVITIES SUCCESS CRITERIA	
	data protection	present domains of interest to citizens	2 meetings / use case / month	KNOWLEDGE ABOUT TECH & PROCESS	Exploration and evaluation process in place impact assessment and monitoring	
TRAINING	train riders	INFORM BUSINESSES	Permanent once we start operating	WELL TRAINED/INFORMED STAFF	Autonomy of actors involved in the use cases	
		INFORM CITIZENS	X trainings / week 1 month before pilot		define profiles needed - HHRR	
SECURITY						

Send feedback

Logroño Roadmap



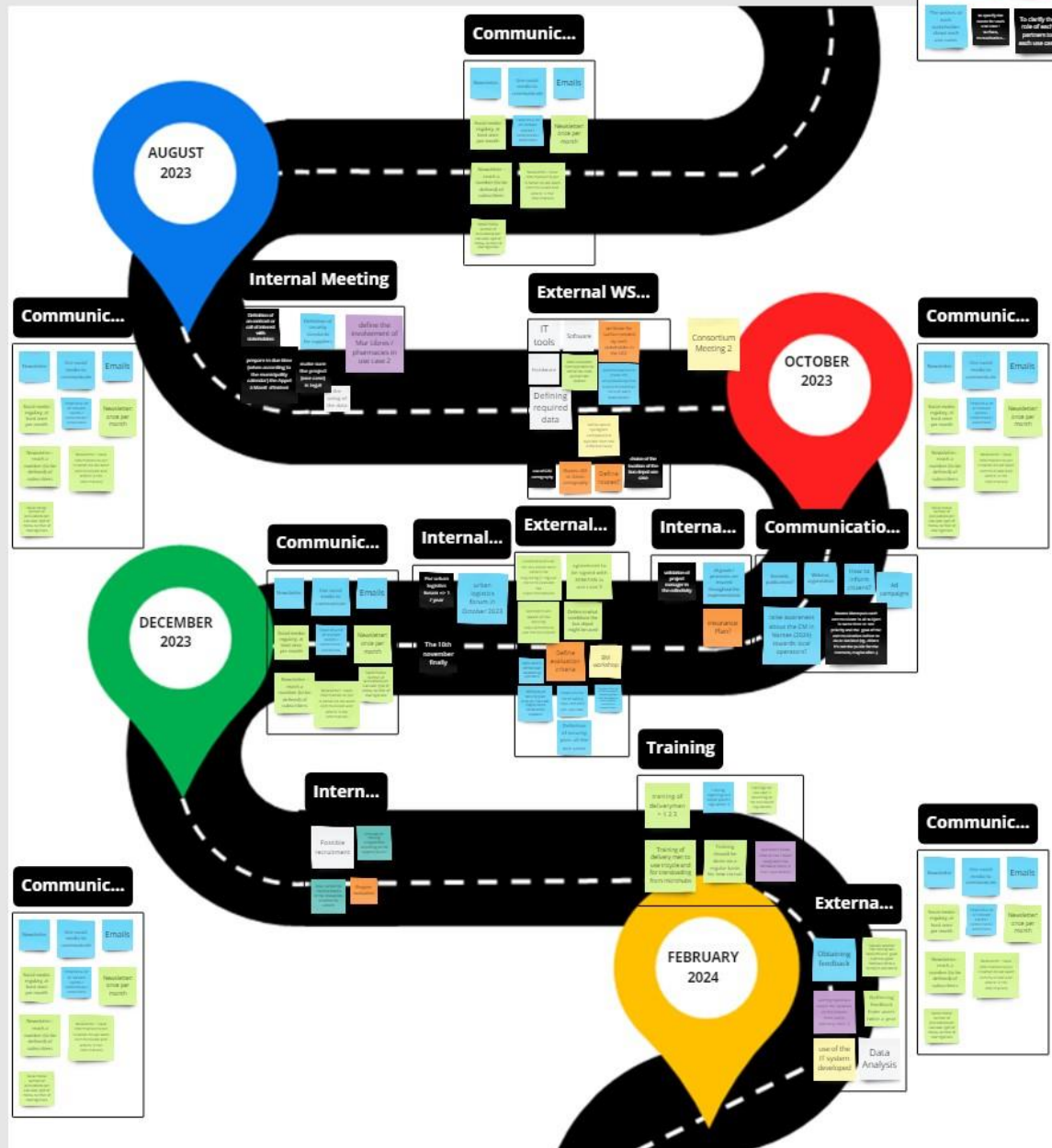
According to the GA, Interventions will start in M19 (March 2024)

Nantes - Actions and Frequency

One post-it per activity type and one post-it per frequency

TYPE OF ACTIONS		HOW OFTEN	USER CASE NUMBER	WHAT YOU NEED TO KNOW/DO/REACH	WHO IS IN/RESPONSIBLE
COMMUNICATION					
Newsletter	urban logistics forum in October 2023	For urban logistics forum > 1 / year	transversal	Newsletter : reach a number (to be defined) of subscribers	Newsletters / have information to put in (what do we want to communicate and where is the information)
Use social media to communicate	10th november ready	1/2 times per year (depending on the existing conferences / events / magazines)		Social media: number of publications per use case, type of media, number of sharings/likes	Establish a list of relevant events / conferences / exhibitions
Scientific publications?	Emails	How to inform citizens?			
Ad campaigns					
Workshops?	Webinar organization	Gathering feedback from users twice a year	Feedback = 1, 2, 3	know the latest stakeholder for each use case + their engagement willingness	The wishes of each stakeholder about each use cases
define the involvement of pharmacies in use case 2	define the benefits of the use case for each type of stakeholder	2 workshops with local stakeholders before the end of September 2023	required data : use case 1, 2, 3	questionnaire to know the stakeholders' doubts	
define the involvement of pharmacies in use case 1?	define the involvement of pharmacies in use case 1?	additional regular defining regular workshops with local stakeholders to work on the BMA, the KPIs, etc.	mobile hub (parking place) = use case 2	the use of data	use of GIS/cartography
define the involvement of pharmacies in use case 3?	define the involvement of pharmacies in use case 3?	once	bus depot = use case 3	make sure the project (use case) is legal	
define the involvement of pharmacies in use case 4?	define the involvement of pharmacies in use case 4?	Start after WS1 - Ongoing	Data analysis : use cases 1, 2, 3	each route is defined and validated by operators	operators know how to use / have integrated the software tools in their operations
define the involvement of pharmacies in use case 5?	define the involvement of pharmacies in use case 5?	prepare in due time (when according to the municipality calendar) the Appel à Manifeste	use cases 1, 2, 3	evaluate whether the training has been efficient : good practices, good feedback (send a survey to operators)	
define the involvement of pharmacies in use case 6?	define the involvement of pharmacies in use case 6?	Once: before the implementation of the innovations to define the content	training of deliverymen = 1, 2, 3	operators are aware of the security requirements to use the bus depot	To assess the risks of the innovations comparing them with the baseline and to define indicators to measure them
define the involvement of pharmacies in use case 7?	define the involvement of pharmacies in use case 7?	Training should be done on a regular basis for new recruit	Definition of security plan: all the use cases	Establish the list of safety requirements per use case	
define the involvement of pharmacies in use case 8?	define the involvement of pharmacies in use case 8?	Definition of security plan: once per use case, maybe some iteration for updates?		all goods / processes are insured throughout the implementation	
define the involvement of pharmacies in use case 9?	define the involvement of pharmacies in use case 9?				
define the involvement of pharmacies in use case 10?	define the involvement of pharmacies in use case 10?				
define the involvement of pharmacies in use case 11?	define the involvement of pharmacies in use case 11?				
define the involvement of pharmacies in use case 12?	define the involvement of pharmacies in use case 12?				
define the involvement of pharmacies in use case 13?	define the involvement of pharmacies in use case 13?				
define the involvement of pharmacies in use case 14?	define the involvement of pharmacies in use case 14?				
define the involvement of pharmacies in use case 15?	define the involvement of pharmacies in use case 15?				
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define the involvement of pharmacies in use case 98?	define the involvement of pharmacies in use case 98?				
define the involvement of pharmacies in use case 99?	define the involvement of pharmacies in use case 99?				
define the involvement of pharmacies in use case 100?	define the involvement of pharmacies in use case 100?				
PREPARATION FOR INTERVENTION					
validation of project manager in the collectivity	Obtaining feedback	Definition of an contract or call of interest with stakeholders		make sure the project (use case) is legal	
Define routes?	IT tools	Define evaluation criteria		each route is defined and validated by operators	
Software	Hardware	to specify the needs for each use case : surface, mutualisation...		operators know how to use / have integrated the software tools in their operations	
TRAINING					
Training of delivery men to use bicycle and use tricycle and for transloading from microhubs	Template for training programmes depending on the targeted public?	use of the IT system developed	training of deliverymen = 1, 2, 3	evaluate whether the training has been efficient : good practices, good feedback (send a survey to operators)	
Prepare evaluation	possible recruitment		training regarding bus depot specific regulation: 3	operators are aware of the security requirements to use the bus depot	
training for use case 3 according to the bus depot regulations					
Agreement to be signed with SEMITAN in use case 3					
SECURITY					
Definition of security plan: once per use case, maybe some iteration for updates?	Definition of security standards for suppliers	Use secured hubs	Definition of security plan: all the use cases	Establish the list of safety requirements per use case	To assess the risks of the innovations comparing them with the baseline and to define indicators to measure them
Insurance Plan?					
				</	

Nantes Roadmap



According to the GA, interventions will start in M19 (March 2024)

J)

Identified Use-Case Actions

Time	Phase	Deadline	Milestones	Tasks
M7-M19	Use-Case Definition	M12	Stakeholder Identifikation	Map relevant stakeholders
				Identify their needs and challenges
				Identify stakeholders' expectations
				Identify their potential roles within the Use-Case
		M12	Use-Case Description	Identify the logistics baseline situation
				Identify the general reference situation
				Describe the use case
				Set performance indicators corresponding to the use case actions
				Identify added-value side-services
				Identify possible other/additional scenerios for the Use-Case
				Identify similar successful use-cases to showcase
		M16	Hub Definition	Define Hub-Location
				Choose and define type of the hub
		M16	Delivery Process Definition	Define delivery range/area
				Map delivery routes and geographical scope
				Define method of transport
				Define (un)loading process/es
		M19	Resource Definition	Define needed hardware equipment
				Define needed software (ICT tools)
				Define needed Data
				Plan Data Security process
				Pre-define needed Human Ressources
				Pre-define the needed financial resources
				List permits and agreements needed
				Identify Logistic Operators
				Formalise success factors in the urban logistics strategies

M17-M25	Preparation of Use-Case Implementation	M25	IT- Implementation Process	Prepare implementation of IT tools
		M23	Hub-Installation Process	Plan interior & exterior of hub
				Plan installation process
				Get permits needed for the installation
				Define hub governance model
		M19	Vehicles & Equipment Preparation	Develop technical equipment needed
				Decide on the vehicle model and quantity
				Define method of obtaining the vehicle: rent / buy
				Define Storage options
				Coupling of ICT tools with vehicles / equipment
		M19	Delivery Route Definiton	Define Route schedule
				Get permits needed
		M24	Autorization Process	Define Legal framework
				Get public authorization
				Get all permits needed
				Get written Stakeholders' agreement
		M24	Business Model	Develop the sustainable business model Canvas
			Marketing Plan	Define Targetgroup
				Define Marketing / Communication tools
		M24	Evaluation Process	Define evaluation criteria
				Set relevant KPI
		M24	Budget	Set budgets for the Use-Case
		M18	Security Framework	Plan security during transport
				Plan security for Employees
				Safety protocols for equipment handling
				Plan how to protect the ressources
		M19	Insuranceplan	Develop Insurance plan to cover location, vehicle & transport
				Plan insurance for Employees
		M25	Recruitment Process	Define profil of employees needed
				Outline the Recruitment Process
				Write and plan the job announcments
		M25	Training Process	Outline the Training process
				Plan the Feedbackprocess

Final Use-Case Action plan

Time	Project Phase	Deadline	Milestones	Tasks	Related WP
M7-M19	Use-Case Definition	M12	Stakeholder Identification	Map relevant stakeholders	WP2
				Identify their needs and challenges	T2.1
				Identify stakeholders' expectations	T2.3
				Identify their potential roles within the Use-Case	T2.3
		M12	Use-Case Description	Identify the baseline situation	WP1
				Analyse the baseline situation	WP2
				Describe the use case	WP2
				Set performance indicators corresponding to the use case actions	WP2
				Identify added-value side-services	WP5
				Identify possible other/additional scenerios for the Use-Case	WP2
				Identify similar successful use-cases to showcase	WP1
		M16	Hub Definition	Define Hub-Location	WP2
				Choose and define type of the hub	WP4
		M16	Delivery Process definition	Define delivery range/area	WP2
				Map delivery routes and geographical scope	WP2
				Define method of transport	WP4
				Define (un)loading process/es	WP4
		M19	Resource Definition	Define needed hardware equipment	T5.2
				Define needed software (ICT tools)	T5.2
Define needed Data	WP3				
Plan Data Security process	WP3				
Pre-define needed Human Ressources	T5.2				
Pre-define the needed financial resources	T5.2				
List permits and agreements needed	WP2				
Identify Logistic Operators	T2.2				
		Formalise success factors in the urban logistics strategies	T2.4		
M17-M25	Preparation of Use-Case Implementation	M25	IT implementation process	Prepare implementation of IT tools	WP3
		M23	Hub-Installation process	Plan interior & exterior of hub	T2.4
				Plan installation process	WP2
				Get permits needed for the installation	WP5
				Define hub governance model	T5.3
		M19	Vehicles & Equipment Preperation	Develop technical equipment needed	T4.1
				Decide on the vehicle model and quantity	T4.1
				Define method of obtaining the vehide: rent / buy	T4.1
				Define Storage options	WP2
				Coupling of ICT tools with vehicles / equipment	T4.2
		M19	Delivery Route Definiiton	Define Route schedule	T3.2
				Get permits needed	T7.1
		M24	Autorization Process	Define Legal framework	T7.1
				Get public authorization	T7.1
				Get all permits needed	T7.1
				Get written Stakeholders' agreement	WP2
				Develop the sustainable business model Canvas	T2.5
		M24	Marketing plan	Define Targetgroup	WP5
				Define Marketing / Communication tools	WP5
		M24	Evaluation process	Define evaluation criteria	WP8
				Set relevant KPI	WP8
		M24	Budget	Set budgets for the Use-Case	WP5
M18	Security Framework	Plan security during transport	WP7		
		Plan security for Employees	WP7		
		Safety protocols for equipment handling	T4.3		
		Plan how to protect the ressources	WP7		
		M19	Insuranceplan	Develop Insurance plan to cover location, vehicle & transport	WP7
				Plan insurance for Employees	WP7
		M25	Recruitment Process	Define profil of employees needed	WP7
				Outline the Recruitment Process	WP7
Write and plan the job announcements	WP7				
M25	Training process	Outline the Training process	WP7		
		Plan the Feedbackprocess	WP7		
M25-M30	Implementation of the Use-Case		Hiring Process	Hiring of staff	
			Legal framework	Ensure all contracts / agreements are in place and finalized	
				conclude insurance contracts with	
		M30	Employee Training	Train the Loading and unloading	WP7
				Train Usage of hardware & software equipment	WP7
		M31	Use-Case Installation	Install the Hub	T7.2
Provide vehicles	T7.2				
Install ICT tools needed and implement software solutions	T3.4				
Implement on-site infrastructures	T7.2				
M31-M37	Pilot testing / demonstration and monitoring	M37	Demonstration	LL oversee the demonstration activities	T7.3
		M37	Data collection	Collect relevant data	WP7
M37-M48	Impact evaluation	M48	Use-Case Evaluation	Environmental impact, social and economic assessments of the use cases based on the KPIs	T8.1
		M48	Replication guidelines	Develop the project blueprint for replication and uptake of the solutions	T8.4

K)

Action Calendar - Hamburg

October	November	December	January	February
	21/11 clarify technical adaptation of the vessel (with OHB) 21/11 develop tidal-based schedule (with HPA) 30/11 Finalizing Use-Case methodology	Finalized Use-Case definition Written confirmation for micro-hub location Confirmation of 6 sailing days	Defined boat route	28/02 set up KPIs for Use Case
Project management - Update internal Excel Permits & Licenses - clarify synergies with the Interreg / OHB project InnoWaTR - clarify licenses needed for implementation - clarify permits needed Loading & Unloading process - clarify loading + unloading and transport process - Plan load security on the boat Budget - Discuss the budget for the Use-Cases Internal WS - Preparing stakeholder WS	Define Use-Cases - Define Hub-Location - Discuss IT processes - Review side-services - Discuss partner tools integrated Evaluation - define evaluation criteria - Set relevant KPI for evaluation - data analysis BM-Workshop - define BM with associated project partners - Finalize Value Proposition Canvas	Marketing - Discuss content for Billboards Evaluation - Prepare Use-Case evaluation Insurance - Develop insurance plan to cover location and Route planning Hub Location - Set up confirmation letter	Route planning define start & endpoint of the barge	Use-Case Implementation - planning Use-Case implementation Marketing - Billboards on Parcel Stations (Public Communication) Training & Recruitment - Plan recruitment - Develop Training courses for cargo bikes - Develop an evaluation process - Training with new containers Security - Discuss employment protection (seasonal hazards)
18/10 Internal Meeting 23/20 Internal WS	DD/11 Stakeholder WS 23/11 BM-Workshop 21/ 11 Exchange with OHB	dd/12 Internal Meeting	DD/01 Internal WS	DD/02 Stakeholder WS

Action Calendar - Istanbul

October	November	December	January	February
	[UC1] location determined	[UC3] finding the suitable UCC location in Istanbul	Defined partners digital needs	[UC3] selecting the operation manager of the UCC from partners [UC3] deciding the e-cargo bike provider partner
Set up agreements - data protection agreement - security agreements / frameworks between operators - NDA or other Agreements - public authorization / legal framework Plan implementation & usage of DEARBOMILE's digital platform - which IT tools to support the use cases - integration of the load pooling algorithm - using GPS system - current IT solutions details Training of stakeholders training other stakeholders related to success results Hiring - define human resources needed - post announcement and hire drivers - knowledge about job opportunities Evaluation - Setup aspects to be evaluated - prepare the evaluation - carry out data evaluation/assessment BM and current state of the art - current operation KPI's and information - Win-Win business (operation) model among logistics operators - Develop evaluation baseline - Introduce business model discussions	Finalize value proposition assessment Internal BM Workshop - Co-Creation of sustainable business model with associated project partners External Co-creation WS2 - Finalize Use-Case definition - Finalize stakeholder action plan - Prepare Implementation phase - Analyze socio-economic context Consolidation center location - topographic data - thresholds analysis - user profile preferences - infrastructure agreement Data Collection & Security - creating instant periods for data security Tool selection (Hardware) - vehicles models comparison - energy savings calculations - determination of charging station model	Pollution Calculations - environmental analysis & evaluation HUB definition: Cargo Vending Machine Supply - Model decision - autonomous delivery & return process Last mile technologies - normalized delivery data - operational consultancy Training (Software integration) - SCU, ILETMEN, KARGOPARK, ARAS KARGO	Service Training - sign data protection agreement - riding course of e-cargo bikes for drivers - Knowledgeable & service driven drivers Marketing (AD-Campaigns) - plan IMM's billboards and screens inside of buses and subways - Plan video advertisement	External co-creation WS - Co-Creation of Use-Case implementation phase Internal physical installation - organizing the interior and the exterior of CCs - installation of e-bike charging station - Installation of hubs - obtaining the e-bike - obtaining and installing the smartlocker next to UCC Security of HUB - goods security in the hub + when transporting - security of hubs, security cams/ alarms etc. HR selection & Training - riding & security courses
environmental or last mile events or fairs conferences regarding urban logistics publications	16/11 Internal BM Workshop dd/11 External Co-creation WS2		dd/01 Service Training	dd/02 External co-creation WS

Action Calendar - Nantes

October	November	December	January	February
each route is defined and validated by operators	List and timeline of the locations' availabilities by Nantes (updated with project implementation timeline: M31-M48)	List of actors clearly involved in the case study Definition of specific use cases requirements (hub size, location, type of flows..) MoV = use case def template completed		Insurance and security plan for the use cases (goods, location, etc.)
Project Management - validation of project manager in the collectivity Insurance - Insurance Plan for goods & processes Stakeholder agreements - agreement to be signed with SEMITAN (UC 3) Use-Case definition - Define conditions of bus depot usage Use-Case evaluation - Define evaluation criteria - Assess the risks of the innovations comparing them with the baseline and define indicators to measure them Security & Risk assessment - Definition of security plan - Establish the list of safety requirements per use case - Definition of security plan: all the use cases	Internal BM Workshop - Finalize value proposition assessment - Co-Creation of sustainable business model with associated project partners External Co-creation WS2 - Finalize Use-Case definition - Finalize stakeholder action plan - Prepare Implementation phase - Analyze socio-economic context	Training - Develop Templates for training programmes depending on the targeted public? Use-Case evaluation - Prepare Use-Case evaluation - feasibility and opportunity studies	Training - training of deliverymen [UC1,2,3] - training regarding bus depot specific regulation [UC3] - Training of delivery men to use tricycle and for transloading from microhubs - Train operators on how to integrate & use the software tools in their operations	External co-creation WS Co-Creation of Use-Case implementation phase Evaluation of Training Evaluate training efficiency send a survey to operators Obtaining feedback Getting feedback about the location of microhubs from users (delivery men...) IT Implementation - Use of the IT system developed - Data Analysis
23 /10 Internal WS DD/10 External co-creation WS	Internal-Urban logistics forum Internal BM Workshop External Co-creation WS2	Internal Meeting External co-creation workshops	Training	dd/02 External co-creation WS

Action Calendar - Logroño

October	November	December	January	February
		Number and specific requirements for vehicles & HUB	Requirement and technical specificity APP microhub (Intelligent Pkng + Getafe)	
send added value services (Carmen prepares and Laura sends) PREPARE EVALUATION AND ASSESSMENT - develop with stakeholders a sector-specific methodology to identify problems, strengths... HUB preparation - define resources (time, equipment,...) - technical and physical requirements for the space - Identify logistic operators (NEW SERVICES) Hiring Process - make job opportunity visible/known Defining Route - set geographic limits of operation (where are we going to deliver?) - hold little workshops about previous experiences - pass by operations data - sequential approach with consecutive use cases (different functionalities/services that trigger conditions/demand for others) Develop Business Model - analyze economic viability of the activity - IDENTIFY & ASSESS VIABLE business models	Define Ressources for Use-Case - Knowledge about tech and process Internal BM Workshop - Finalize value proposition assessment Co-Creation of sustainable business model with associated project partners	Evaluation & Validation - impact assessment and monitoring Training - start training of the riders External Co-creation WS2 - Finalize Use-Case definition - Dedicated time at the workshop to respond the survey - Finalize stakeholder action plan - Prepare Implementation phase - Analyze socio-economic context	Success demo - prepare demos of success to trigger engagement Data strategy - what to measure and monitor and how Evaluation & Validation - Exploitation and evaluation process in place - Validate all pre-requisite - Autonomy of actors involved in the use cases - specific meetings by sectors Training - WELL TRAINED/INFORMED STAFF Insurance	External co-creation WS Co-Creation of Use-Case implementation phase
23 /10 Internal WS Internal Meeting External Meeting Internal Meeting	Internal BM Workshop External Co-creation WS2			dd/02 External co-creation WS

L)

Stakeholder engagement in WS1 - NANTES

Local authorities and decision-makers	Logistics and Transport	(Local) Businesses & User	Research and others
FFB Nantes Metropole, river department Association des commerçants de la Route de Vannes	Atlantique Boissons Pomona Terre Azur Transport Heppner DB Schenker Tout en Vélo Boite à Vélo Coopcycle SEMITAN	CAPEB	
Stakeholders not available due to scheduling constraints: JC Decaux			

Project Partners			
NANTES	ID4CAR, FLEX, CARA, TRI, IT		IMT

Stakeholder engagement in WS1 - HAMBURG

Local authorities and decision-makers	Logistics and Transport	(Local) Businesses & User	Research and others
Ministry for Environment Agency for Roads, Bridges and Waterways Hamburg Port Authority			Fraunhofer Institute
Stakeholders not available: Business Improvement District Neuer Wall, Monument Protection Office and Urban Design			

Project Partners			
HAM, ITS	LIHH, DPDHL		TUHH



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Stakeholder engagement in WS1 - ISTANBUL

Local authorities and decision-makers	Logistics and Transport	(Local) Businesses & User	Research and others
Kadıköy Municipality İstanbul Enerji	Paket Taxi Kargopark İletmen DHL Logistic Aras Kargo Hepsijet	Hepsiburada	
Stakeholders not available on the WS day: Scotty, MNG Kargo, Sürat Kargo, Yango Delivery			

Project Partners			
IMM	MIGROS		SCU

Stakeholder engagement in WS1 - LOGROÑO

Local authorities and decision-makers	Logistics and Transport	(Local) Businesses & User	Research and others
Association of Logrono historical centre Government of La Rioja (Rural Development) Government of La Rioja (Innovation)	Dacysir (glass bottle reuse) Jimenez Tagus (oil recycle) DHL RCXB	Representative of “100 SHOPS WALK” RIOFARCO TSYS San Blas Market Mercadona CPAER Ciclo XXI Nuts Ángel Rosalinda eggs	Chair of Commerce Roja University International University of La Rioja
Stakeholders not available: MRW, Summertime by Bianca, Chamber of Commerce, Mykonos, Ecologistas en acción, Association of Residence for Elderly/Sector Council for the Elderly, Companis bakery (CPAER), La huerta de rizos (CPAER, Chamber of Commerce, Corregidor Market, HORECA, Planeta limpio) Confirmed but not attended: GLS, El colletero (CPAER), CPAER, Papin Not reached (by phone): Gelee boutique, Hotel Association, Touristic Apartments association, Rioja Government – Telecare, Yayacletas, De Torre, DellaSera			

Project Partners			
LGN	RCXB		CAPIT

Challenges identified in WS1

- 1) Availability issues
- 2) Stakeholders are hard to reach out to
- 3) Stakeholder roles were not clearly defined
- 4) Stakeholder won't commit until economic viability is proven

Collect problems and challenges you are facing when engaging with stakeholders.



Step 2

How well does the current stakeholder engagement support the success of the project?



5 min

Remember to reflect on how well you already include all important stakeholder groups.



Excellent



Good



Medium



Poor



Very Bad

Please explain your ranking. Focus on which aspects are going well and which aspects you would like to improve.

We are happy with...

We want to improve...



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1. **Troubleshoot:** Discuss potential underlying causes of the problems from **Step 1**.
2. **Formulate solutions:** Collect ideas to tackle the challenges.

Example: Availability issues

1. **Troubleshoot:** *They don't have time to travel.*
2. **Solution:** *We might offer the option to join the WS online.*

Post-It: *Offer online participation.*





Decarbonising the Last Mile of Logistics

DECARBOMILE (No, Type) / Guidelines for the Third Series of Stakeholder Engagement Workshops (WS3)

Type of Meeting	
Date/Place	
Authors	CBS, Isabel Froes, Isabella Hauswald
Status	Draft
Due date	
Document date	
Version number	1.0
	<i>DECARBOMILE has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement n°101069806. Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains.</i>

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3	Purpose of the Training Workshop.....	Error! Bookmark not defined.
4	Timetable for Workshops	Error! Bookmark not defined.

During the first series of workshops, LLs, together with external stakeholders, were able to further define the use cases, identify additional stakeholder needs and challenges, and co-create a stakeholder engagement roadmap where key future activities were identified, allocated, and success criteria designed to ensure the successful implementation of the interventions.

This second series of workshops will follow on from the first and will aim to wrap-up T2.2 and define each of the use cases in full; continue working with T2.3 in identifying local business development opportunities where citizens, policy makers and local businesses will be invited to share their ideas for the creation of new networks and processes that can positively impact the mobility and transportation of goods and facilitate the creation of related businesses in the pilot areas; and this time, introduce T2.4 in collaborative recommendations for the implementation strategy. These workshops will lead to the formalisation of the key factors required in the urban logistic strategies and urban regulation frameworks (mobility, urbanistic) of each LL as well as feed the collaborative implementation strategy definition.

Partners involved in the above activities, in addition to the LLs local partners, are NANTES, IT, LIHH, TUHH, CAPIT, CBS, RXCB, and CARA.

We have created these joint guidelines to provide a methodological framework for these upcoming workshops. The below figure represents the different steps (workshops) that we recommend finalising by November 2023.

The goal is to implicate and engage stakeholders in each step of the co-creation process and throughout the implementation of the use cases. For this, it is important to monitor the engagement of stakeholders including at what capacity they can engage with the project and interventions.

2 WORKSHOP 2 PRACTICALITIES

2.1 PREPARING FOR THE WORKSHOP

- Set up a date and send out an [invitation email](#) (template provided by CBS) – please communicate to the stakeholders that the workshop will take **half a day**. A preparatory meeting with the internal partners of each DECARBOMILE LL will take place in advance of the workshops. The workshops with external stakeholder should take place around October / November.
- In preparation of the external stakeholder WS, there will be an internal workshop run-through with CBS and all the LL to discuss the workshop goals and prepare all the tools based on the individual needs of the LL.
- Prepare PPT presentation and Tools for the WS
 - Prepare the presentation of the USE-Cases with an overview of partner tools and an update on the potential site locations
 - Prepare the engagement roadmap by already filling in WS and meetings that are mandatory based on the GA and also prepare ideas for the overall communication guidelines for each month to be reviewed
 - Prepare ideas for overall phases and milestones for the action plan --> utilize already existing action plans from last WS
 - Prepare material for analysing the socio-economic context of the LL
- Book room/location, arrange refreshments, etc.
- Prepare materials (for printing, or online files in case of an online meeting).
- Decide who will be the main facilitator and the supporting facilitator. The supporting facilitator should be responsible for taking pictures, helping the main facilitator in the activities – making sure the right colour post-its are being used, etc.)
- If a hybrid meeting, please make sure to have at least three facilitators, two for the physical space and another one for the online part.

2.2 WORKSHOP GOALS

This second series of workshops will have the following goals:

- (1) Review the defined use-cases
 - Discuss & Choose partner tools to be integrated into each use case
 - Confirm the potential hubs location
 - Clarify the objectives for each UCs
- (2) Review (and update if needed) the stakeholder engagement plan
 - Remind of meetings and communication planned
 - Revise (update if needed) the activities to take place on the upcoming workshops
- (3) Review the stakeholder action roadmap for the use cases
 - Identify milestones and review actions / activities
 - Reflect which stakeholders wants to contribute
 - Define responsible project partner & success criteria for each action

(4) market environment analysis

- analysis of the socio-economic context in the pilot regions
- Analysis of assets and obstacles that could empower or restrict the businesses success
- Analysis of enabling aspects that might create growth opportunities

(5) Prepare an outline of the Use-Case implementation strategy

- Discuss the implementation strategy to implement the use cases, based on your needs
- Brainstorm the outline of the implementation roadmap by identifying important steps

2.3 THE WORKSHOP FORMAT

Before the workshop:

- Prepare the room and place all the needed materials
- Please make sure everyone signs the document stating their consent (sent by CBS) to recording and image material (this is to be uploaded to the repository together with the reporting template). [DECARBOMILE_Meeting_attendance_consent_Template_v1.1.docx](#)

During the workshop:

- Please remember to record if online and please take pictures of the sessions, including the boards after each activity.
- We encourage to have participants broken down in small group discussions (around 6-8) when discussing the use cases, to facilitate the exchange of ideas and relevant inputs. Each group should be led by a facilitator.
 - It is up to the LL to decide how to form the groups: it may be relevant to mix professions to encourage trans-sectoral collaboration, or to put together representatives of one profession to consolidate their needs and requirements.
- You may use Post its, flipchart paper and large white papers to structure and take note and the discussions.
- Always spare time at the end of the discussion (10-15 minutes) for each group to provide a synthesis of their exchange to the rest of the participants.

Workshop agenda:

Objective	Time	Activity
Use Case definition (45 min)	10 min	Welcome / Icebreaker with slido
	20 min	Use case presentation, including presentation of IT tools (WP3) of potential interest
	15 min	Discuss and define Hub Location
	20 min	Discuss which partner tools and which hardware equipment will be used (providers, compatibility with the ICT tools, etc.)
	15 min	Open Questions about Use-Cases & Discussion about tool integration (WP3)
	10 min	BREAK
Use-Case implementation (30 min)	30 min	Discuss the Implementation phase of the Use cases. - Brainstorm how the use-case be implemented. Co-create the draft of a timeline defining actions needed - Discuss timing of the implementation - Reflect on potential challenges / issues that might encounter / critical steps for the use case - Define critical stakeholders for the implementation phase
	5 min	Break
Stakeholder Action plan (40 min)	10 min	Present the next steps to the stakeholder
	15 min	Identify and discuss milestones for the project until the intervention starts
	15 min	Review let each stakeholder indicate where and how they can contribute Define responsible project partners for the milestones
	10 min	BREAK
Stakeholder Engagement plan (25 min)	10 min	Present and explain the stakeholder engagement plan
	10 min	Reflect the plan with stakeholders and update the plan an if needed. Reflect and discuss engagement problems
	5 min	Reflection and wrap up of results / Update of contact information if needed
	5 min	BREAK
PEST- analysis 40 min	5 min	Introduction and explanation of PEST-Analysis
	10 min	Review of material provided about the socio-economic context of the LL
	15 min	Brainstorm aspects for each category
	10 min	Review and ranking the aspects
WRAP UP	15 min	Short wrap up of the WS results, what was decided, what are next steps.

Post workshop:

- Write participants thanking them for their participation and list next steps.
- Fill out template (sent by CBS) with workshop results and plan for next steps within three days of holding the workshop: [DECARBOMILE_Reporting Template_WS2.docx](#)
- Upload images/photos and recordings (if online) to the repository (SharePoint)
- Set up dedicated calls or follow-up exchanges with stakeholders to:
 - confirm the needs identified,
 - cocreate a hub space allocation proposal and a retro planning of the use case implementation,
 - identify relevant KPIs and draft a written agreement to be respectively validated and signed in workshop 2.

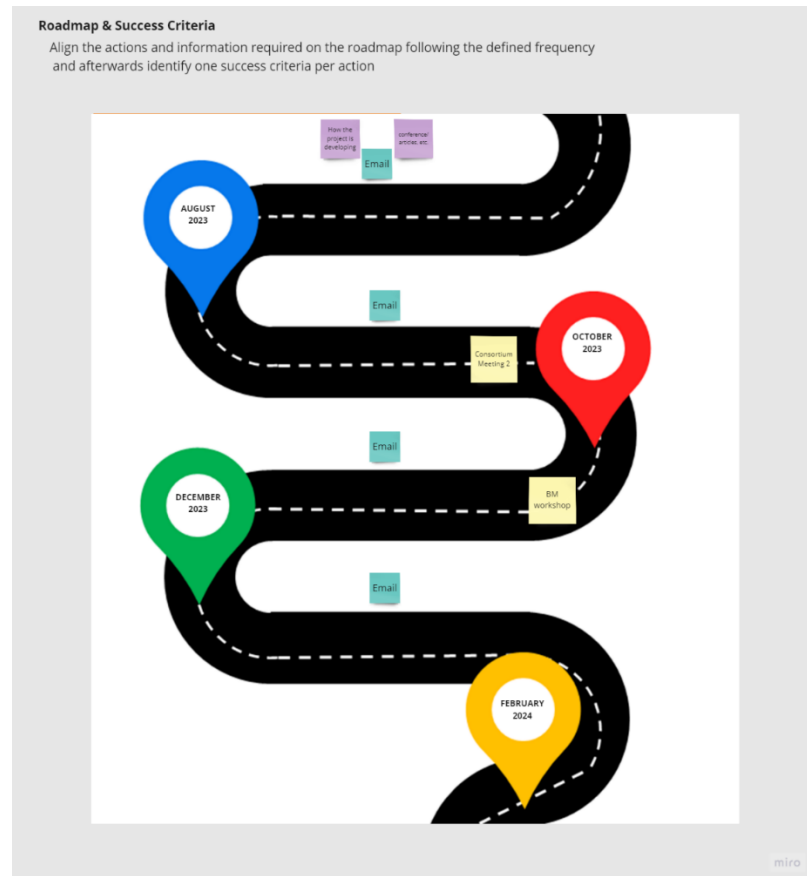
2.4 SUGGESTED TOOLS & APPLICATION

In the following you can find the tools to use during your workshops. You can find the online version and further description [here on MIRO](#) (please register for free on Miro in case you do not have an account yet – then you will get access to the tools).

Find the Brainstorm templates here:

The LL-preparations will be done during the internal workshop session and finished by the LL until the external stakeholder WS take place.

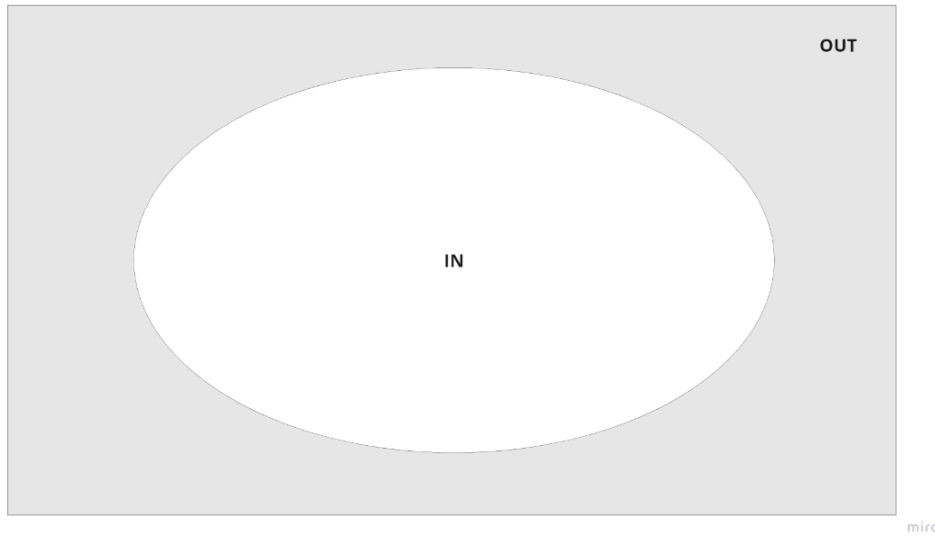
Stakeholder engagement Roadmap



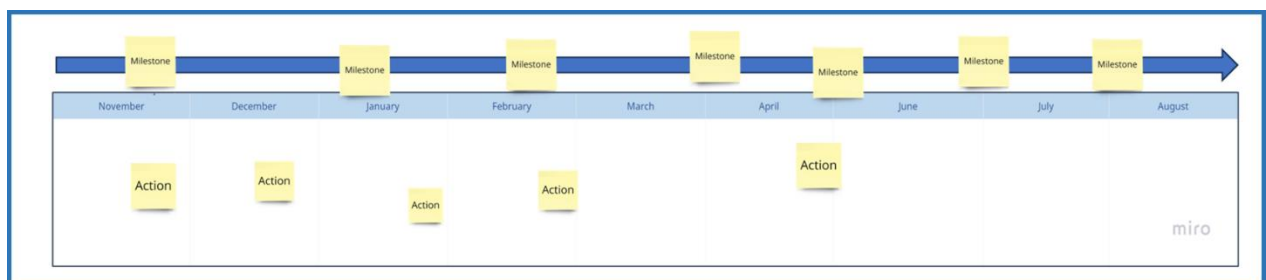
In & out activity

IN/ OUT Activity

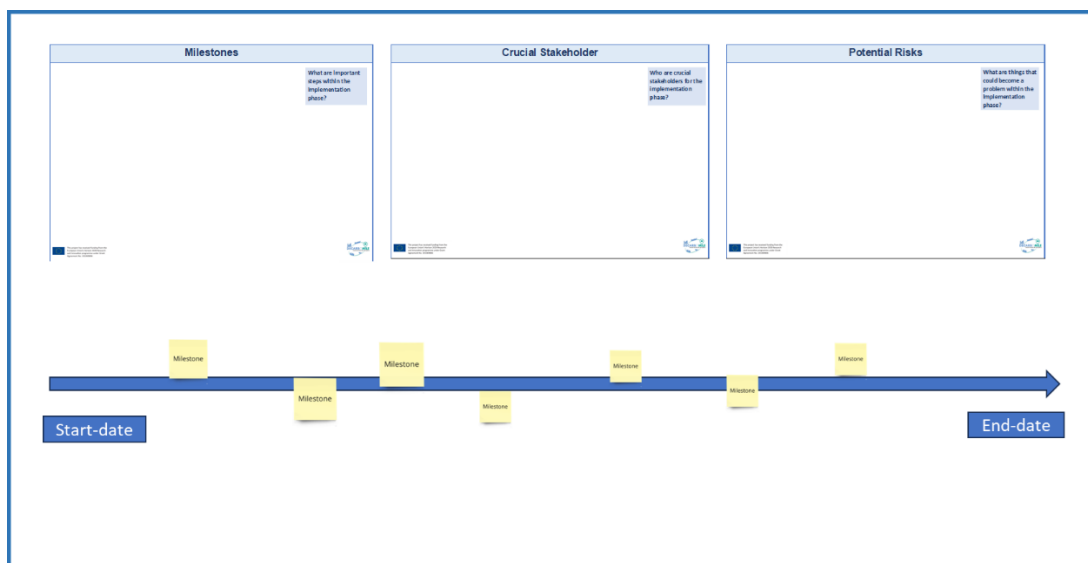
Trough which activities can you contribute and how would you like to engage? Are you actively/passively, continuously/ one time etc. contributing?



Use-Case action plan



Use-case Implementation



PEST-Analysis

Political	Social
Political factors look at how government policies, regulations, and incentives can impact the sustainable last mile delivery business.	Social factors consider things like consumer preferences, behaviors, and cultural trends that may influence our sustainable last mile delivery operations.
Economical Economic factors focus on things like market growth, costs, and financial trends that can affect our business.	Technological Technological factors examine the technological advancements and tools that can either enhance or disrupt our business processes.

3 TIMETABLE FOR LIVING LABS' WORKSHOPS

Please fill out the following table as soon as you have the information regarding the upcoming workshops.

External Stakeholder Co-Creation WS2			
Living Lab	Preparatory internal workshop: Date & Time	External workshop 2 Date	Number of Stakeholders invited
Hamburg	23.10.2023 1-3pm	2 November	
Istanbul	23.10.2023 1-3pm	TBC November	
Logroño	23.10.2023 1-3pm	14th December	
Nantes	23.10.2023 1-3pm	TBC (November/December)	

Use-Case action plan	Milestones
	1. Brainstorm important milestones. 2. Discuss and add the important milestones to the timeline. 3. Discuss responsible project partner for each milestone.



1. Brainstorm important actions to achieve the milestones set.
2. Discuss responsible project partners.
3. Decide which stakeholder wants to participate in what action.



This considers how government actions and policies can affect a business. It's about laws, regulations, and political stability.



Social factors focus on how people's attitudes, values, and lifestyles can influence a business. Think about demographics, cultural trends, and social preferences.



This looks at the economic conditions that can impact a business. It involves factors like inflation, exchange rates, and overall economic health



This is all about technology and how it affects a business. It includes things like advancements, innovation, and how technology can change industries.



What are things that could become a problem within the implementation phase?



Who are crucial stakeholders for the implementation phase?



What are important
steps within the
implementation
phase?







Stakeholder Problems



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Stakeholder Needs



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Decarbonising the Last Mile of Logistics

DECARBOMILE (No, Type) Reporting Template

Type of Meeting	LL Stakeholder Engagement Co-Creation Workshop 2 – LL NAME
Date/Place	xx/xx/2023
Authors	CBS, Isabel Froes, Isabella Hauswald
Status	Draft
Due date	
Document date	24/10/2023
Version number	1.0
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Reporting Template

The table below should be filled out, sent back to CBS, and uploaded to the [SharePoint](#).

Reporting Template – Co-Creation WS2					
Living Lab					
Use-Case					
Total number of attendees					
Number of Stakeholder invited					
Number of Stakeholder represented in the WS					
Which stakeholder groups were represented? Please make sure to update the information in the stakeholder map					
Stakeholder	potential contribution	current engagement level	desired engagement level	Contact	Preferred channel of communication
Which stakeholders were not reached and why? Please make sure to update the stakeholder map accordingly					
Stakeholder		Reason			

Stakeholder needs and problems identified		
Stakeholder	Needs	Problems

Data Security		
Please list below the identified concerns and expectations from stakeholders regarding data sharing and data security.		
Stakeholder	Concerns	Expectations / requirements

Stakeholder engagement		
Stakeholder engagement plan	Please specify if and how the stakeholder engagement plan has been updated during the WS. - What meetings, WS etc.. are planned?	
Challenges identified	Please specify if there were problems/ challenges identified and how you are planning to address them.	
Summary of the next steps	What are agreed next steps within your stakeholder engagement?	

Use-Case definition	
Status of Use-Case definition	In Bullet points please describe the current work status of the Use-Case. Identify what has been done and what steps still need to be taken. When are you planning to finish the Use-case definition?
Challenges identified	What are critical actions / problems at the moment? What potential solutions could be identified?
Hub-Location	Please list the discussed Hub-Locations with a short summary of the discussion.
Partner tools to be integrated	Describe which partner tools and which hardware equipment will be used in the use-case
Additional changes of the Use-Case definition	In case the Use-Cases were defined any further please explain how.

Use-Case action plan
Was a Use-case action plan created? Please list the milestones and actions below. Make sure to upload the pictures of your results.
<u>November</u> Milestone 1 [Success criteria] - Action 1 (Responsible PP) - Action 2 (Responsible PP) Milestone 2 [Success criteria] - Action 1 (Responsible PP) - Action 2 (Responsible PP) <u>December</u> Milestone 1 [Success criteria] - Action 1 (Responsible PP) - Action 2 (Responsible PP) Milestone 2 [Success criteria] - Action 1 (Responsible PP)

Use-Case Implementation	
Potential Risks What are things that could become a problem within the implementation phase?	
Crucial Stakeholder Who are crucial stakeholder for the implementation phase and why?	
Implementation Milestones What are important steps within the implementation phase?	Please list the steps in chronological order.
Timing of the Implementation phase What is the planned time for the implementation phase?	Please describe how many months you are planning for the implementation phase as well as when do you plan it to start and end.
Additional comments	

PEST-Analysis

Please list all the identified factors below. Make sure to keep the order of relevance by starting the list with the most relevant and finishing with the least relevant factors.

	Enabling factors	Hindering factors
Political	- Most relevant factor for use-cases - - Least relevant factor for use-cases	
Social		
Economic		
Technical		

Optional: Quick feedback about the WS experience

How did the WS go? Are you happy with the results? Were you able to meet all the objectives? Did the tools work? Did you experience any problems?

Instructions

Before the Interview, copy the template into the Living Lab folder and prepare the template with the Use-Case / Stakeholder specific Question. During the interview you can use the template to take notes and after the interview to complete it based on the recordings.

Use-Case xx	Interview with xxx from xx	Date xx.xx.xxxx
What challenges does the use cases address for you and what added value will it provide / are you hoping to get out of it?		
Are there any additional features or services you believe should be included in the business model to better serve your needs in the context of the identified use-case?		
Are there any concerns from your side regarding the functionality of the current BM/Use-Case for your Business?		
What factors do you believe are most critical for the success of this business model from your perspective?		
- What outcomes are you expecting for your business to consider it a success? - What outcome would symbolize a failure of the Use-Case?		
How do you assess the economic viability of the Use-Case for your Business?		
- Are there any concerns regarding the economic viability? If yes, what concerns to you have? - Do you have specific questions / concerns on the acquisition of the hardware (<i>specify if already known</i>) for the use case?		
How do you assess the scalability of the current Business model?		
Would you be interested in implementing the Use-Case in the long term?		
- If not: What is hindering you to implement it in the long term? What factors would be important for you to consider for a long-term implementation? - If yes: How would you change your BM in the future to further improve the service? (e.g. reverse logistics)		
How do you envision the partnership with xx & xx during the Implementation period?		
- How do you envision your role in the partnership? - What potential benefits are you hoping to get out of the partnership / collaboration? - Are there any concerns regarding the collaboration / partnership with the other stakeholders?		



DECARBOMILE

Decarbonise last mile logistics



