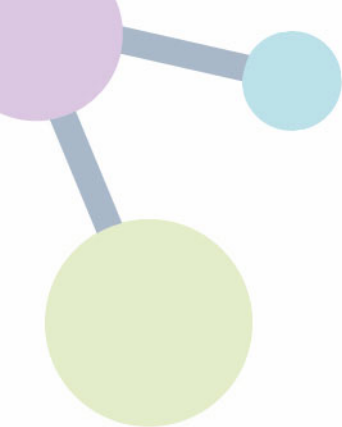




MOVE

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REFLECTIVE MONITORING: INTERIM REPORT

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MOVE21 – Multimodal and interconnected hubs for freight and passenger transport contributing to a zero emission 21st century



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Project Executive Summary

The main objective of MOVE21 is to transform European cities and functional urban areas into climate neutral, connected multimodal urban nodes for smart and clean mobility and logistics. MOVE21 will do this through an integrated approach in which all urban systems are connected, and which addresses both goods and passenger transport together. As a result, MOVE21 will improve efficiency, capacity utilisation, accessibility and innovation capacity in urban nodes and functional urban areas.

The integrated approach in MOVE21 ensures that potential negative effects from applying zero emission solutions in one domain are not transferred to other domains but are instead mitigated. It also ensures that European transport systems will become more resilient. Central to the integrated approach of MOVE21 are three Living Labs in Oslo, Gothenburg, and Hamburg and three replicator cities Munich, Bologna and Rome. In these, different types of mobility hubs and associated innovations are tested and means to overcome barriers for clean and smart mobility are deployed. The Living Labs are based on an open innovation model with quadruple helix partners. The co creation processes are supported by coherent policy measures and by increasing innovation capacity in city governments and local ecosystems. The proposed solutions deliver new, close to market ready solutions that have been proven to work in different regulatory and governance settings. The Living Labs are designed to outlast MOVE21 by applying a self-sustaining partnership model.

MOVE21 partners

The MOVE21 consortium consists of 24 partners from seven different European countries, representing local city authorities, regional authorities, technology and service providers, public transport companies, SMEs, research institutions, universities and network organisations.

- **Norway:** City of Oslo, Viken County, Ruter, Urban Sharing, Mixmove, Institute of Transport Economics, IKT-Norge
- **Sweden:** City of Gothenburg, Rise Research Institutes of Sweden, Business Region Gothenburg, Volvo Technology, Renova, Parkering Göteborg
- **Germany:** City of Hamburg, City of Munich, Hafencity University Hamburg, Deutsche Bahn Station & Service
- **Italy:** Metropolitan City of Bologna, Roma Servizi per la Mobilità, Roma Tre University
- **Belgium:** Eurocities, Polis
- **The Netherlands:** TNO Netherlands Organisation for applied scientific research
- **Greece:** Hellas Centre for Technology and Research



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Deliverable executive summary

This deliverable, **D6.6 Reflective Monitoring: Interim Report**, details the interim results of the reflective monitoring process for the three Living Lab cities and the intermediate results on developing the Innovation Co-Creation Partnerships and on increasing innovation capacity and policy coherence.

In this deliverable we build on the Reflective monitoring approach as described in D6.1 *Reflective Monitoring Guide* (December 2021). Furthermore, for the Innovation Co-Creation Partnerships, we build on D6.5 *Living Labs Establishment Report* (June 2022), that details the development of the Living Lab cities and their Innovation Co-Creation Partnerships for the first year of the project (during the Set-up Stage).

The idea of cities as testbeds is central to MOVE21, and the project comprises three Living Labs in Oslo, Gothenburg and Hamburg. In the Living Labs of Oslo, Gothenburg and Hamburg, processes are set-up to co-create knowledge necessary for choosing, tailoring and deploying the new solutions (innovations) for passenger and goods transport in the local contexts. This is done in the so-called Innovation Co-Creation Partnerships (ICCPs) in which actors from the local innovation ecosystem, local government and agencies, businesses and industries, knowledge institutes and academia and citizens or citizen groups, work together.

There is no blueprint for this process. By means of reflective monitoring, a regular reflection on the process is built in to help the Living Labs and its ICCPs to keep track and to learn how to better promote and deploy the selected innovations. The Reflective Monitoring is geared towards qualitative monitoring of the Living Labs and, in this way, creates a continuous loop of observations, reflections, and actions to improve the operation of the Living Labs and the deployment of innovations. It is about capturing lessons learned from the experiments and the process of co-creation in the Living Labs.

The main topics for the Reflective Monitoring in the Living Lab cities are:

- Innovation Co-Creation Partnerships;
- Innovation Capacity;
- Policy Coherence.

Innovation Co-Creation Partnerships

The ICCPs have further matured in the past year building on the basis of the organisational model and vision and mission that were developed in the Set-up Stage. The partnerships have expanded, the first results have been and are being showcased, and the implementation is ongoing. As part of these actions, (operational) business model(s) have been developed and are tested linked to the innovations and solutions. As things are happening 'on the ground', this also gives the opportunity to further develop the promotion and brand of the Living Lab, in relation to the MOVE21 project and on the level of the Innovation Co-Creation Partnership (also taking into account promotion and branding on the level of individual partners).

We see the biggest challenge regarding the Financing Strategy and Business Model for the ICCP. At this point mainly Hamburg Living Lab has secured this within the Logistics Initiative Hamburg and focuses on the potential for continuation. For Oslo and Gothenburg this will need additional scoping and discussions how capture the commitment from partners involved in the ICCP, defining ownership, to ensure longevity.

Innovation Capacity

MOVE21 uses a categorization that contains five elements of innovation capacity: Leadership, Organisation, Knowledge Management, Network and Learning. Based on a survey and interviews in the Living Lab cities, a first analysis was done on the innovation capacity in the cities. Based on this analysis we see opportunities and activities to increase the Innovation Capacity in Living Lab cities. This translates to active knowledge brokering and peer learning activities. The exact activities will be

designed per Living Lab city based on their specific needs. Furthermore, broader deployment of the Innovation Capacity Survey among additional respondents in the Living Lab cities but also in the Replicator cities is foreseen. Additional reflections are foreseen to be discussed during a peer-learning event among all cities next year.

Policy Coherence

Policy coherence is a multifaceted and challenging issue. Achieving policy coherence necessitates the establishment of robust institutional arrangements that facilitate coordination and integration across different sectors and policy levels. With policy coherence, we focus both on vertical policy coherence (e.g. between levels of government, f.i. EU, national, regional, local) as well as horizontal policy coherence (e.g. across sectors and domains).

Based on the reflective monitoring, the cities have brought forward the following common challenges: Lack of comprehensive mobility plans; Regulatory challenges; Multi-level collaboration; Stakeholder collaboration; Feedback loop and monitoring. These common challenges highlight the need for comprehensive planning, streamlined regulatory processes, collaborative governance, stakeholder engagement, and data-driven decision-making to achieve policy coherence in the complex realm of urban mobility. This will be given follow-up in the next period, continuing to work on use cases in the three cities. Furthermore focus will be put on the topic regarding the uptake of policies in the relevant city plans and strategies. In both activities the link will be made to the TEN-T corridor level and urban nodes, regarding the need for policy integration and the identified risk of increased policy incoherence at urban mobility policy level, both across sectors and cross-level.

Next steps

The deliverable rounds up with an overview of the planning and timeline of the reflective monitoring. The next steps are key in WP6, but they also have important links to activities from other work packages. All activities will be closely planned in collaboration with partners in the Living Labs. Where we see connections to the scope and activities of other work packages, this will be aligned with the concerning work package leaders. Follow-up activities are important input for upcoming deliverables D6.7 *MOVE21 guide on improving city's capacities for promoting sustainable mobility and logistics innovations* and D6.8 *Practitioners' guide for setting up self-sustaining innovation co-creation partnerships*.

Key words

Living Labs, Monitoring, Reflection, Learning, Innovation Capacity, Policy Coherence, Innovation Co-creation Partnerships

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List of abbreviations and acronyms

Acronym	Meaning
D	Deliverable
DT	Digital Twin
GCP	Gothenburg Climate Partnership
GGCZ	Gothenburg Green City Zone
ICCP	Innovation Co-Creation Partnership
LIHH	Logistics Initiative Hamburg
LL	Living Lab
QH	Quadruple Helix
SULP	Sustainable Urban Logistics Plan
SUMP	Sustainable Urban Mobility Plan
TF	Task Force
WP	Work Package
WPL	Work Package Leader

1 Purpose of the deliverable

This deliverable, **D6.6 Reflective Monitoring: Interim Report**, details the interim results of the reflective monitoring process for the three Living Lab cities and the intermediate results on developing the Innovation Co-Creation Partnerships and on increasing innovation capacity and policy coherence. This deliverable relates to task 6.2 in Work Package 6, *Facilitate efforts to increase innovation capacity and policy integration*. This deliverable will be used to adjust the project's direction and focus in the three Living Labs if necessary, in relation to fostering innovation capacity.

In this deliverable we build on the Reflective monitoring approach as described in D6.1 *Reflective Monitoring Guide* (December 2021). For the Innovation Co-Creation Partnerships (ICCPs), we build on D6.5 *Living Labs Establishment Report*, that details the development of the Living Lab cities and their Innovation Co-Creation Partnerships for the first year of the project (during the Set-up Stage).

1.1 Attainment of the objectives and explanation of deviations

The objectives related to this deliverable have been fully achieved and as scheduled.

1.2 Intended audience

This deliverable is public and therefore relevant to a broad audience.

First, the audience is intended to be the project participants in general, as well as the stakeholders involved in the Living Labs. This relates to directly involved stakeholders – Living Lab project managers, involved city officials, Task Force members, ICCP members – as well as stakeholders related to the three cities that are interested in the MOVE21 Living Labs. Also, the report is relevant for work packages in MOVE21 that have a link with the Living Labs and the establishment and self-sustaining of the concept, as well as support to achieve this.

Furthermore, this deliverable is interesting for a general audience that wants to set up self-sustaining Living Labs and would like to learn on the approaches implemented in MOVE21 – specifically regarding innovation capacity and policy coherence.

1.3 Structure of the deliverable and links with other work packages/deliverables

The deliverable reports on the reflective monitoring process that has been executed regarding the Innovation Co-Creation Partnerships, Innovation Capacity and Policy Coherence. The Reflective Monitoring activities covered in this interim report span the period January 2022 – September 2023.

The deliverable describes progress, insights and challenges on the topics of ICCP's, Innovation Capacity and Policy Coherence in the three Living Lab cities Oslo, Gothenburg and Hamburg. Furthermore, it reassesses the Reflective Monitoring approach and details next steps regarding the Reflective Monitoring activities, including a planning update.

Finally, the next steps define activities needed to achieve the projects' goals in the Living Lab cities regarding self-sustaining Innovation Co-Creation Partnerships and fostering innovation capacity.

From this deliverable we see links with several work packages: WP3, 4, 5, 7, 8, 9 and 10.

There is a strong link to work package 8 *Measuring and Impact Assessment*. In WP8 the focus is on monitoring impacts of the Living Labs (and the replicator cities; Munich, Bologna and Rome), which is more focused on quantitative monitoring. The monitoring that is taking place in WP6 under the reflective monitoring section is focused on the process in the ICCP's leading towards implementation of measures and impacts in the Living Labs. The results from the Reflective Monitoring in WP6 can deliver explanations for the results of the quantitative monitoring in WP8. More directly there is a link to result

indicators 4.9 and 4.10 regarding Innovation Capacity and result indicator 4.8 regarding Policy Coherence, as reported in D8.1 *Impact Analysis Framework for the Living Labs* and D8.3 *Ex-ante implementation of the Impact Analysis Framework for the Living Labs*.

There is also a link to WPs 3, 4 and 5. WP3 (the Urban Social Layer), WP4 (Governance Innovation) and WP5 (Technological Solutions and Integration) will exchange knowledge with the Living Labs on the topics of the urban social layer, governance innovation, technology solutions, technology integration and digital twins. Some of the tasks in WP6 will be taken up collectively with these WPs and collaboration between WP3, 4, 5 and 6 is evident in the Living Lab processes.

With WP7 (Replication and Take-up), the link is mostly on knowledge exchange and peer learning, capacity building and replication activities between the Living Labs and the replicator cities.

With WP9 (Exploitation Management) there is a link regarding key exploitable results, related to business plan development and the exploitation of the business models, both on a strategic level (partnerships) and operation level (measures and solutions).

Finally, with WP10 (Outreach and Dissemination), the link is regarding knowledge management, capturing and disseminating the results and learnings of the Living Labs towards a broader audience. Furthermore, we closely cooperate with WP10 on the topic of Policy Coherence on Urban Nodes and TEN-T Corridor topics (vertical policy coherence; the Scan-Med Observatory).

2 Introduction

In this chapter, we will illustrate the relevant MOVE21 context for this deliverable. We will start with an introduction on the reflective monitoring in the MOVE21 Living Labs including the scope. D6.1 *MOVE21 Reflective Monitoring Guide* sets out the framework, methodology and protocols for ex-durante observations of the interactions related to the Living Labs. This deliverable reports on the first results of the reflective monitoring.

Based on MOVE21's Grant Agreement and the Reflective Monitoring guide, three main topics were selected for monitoring in the three Living Lab cities: Innovation Co-Creation Partnerships, Innovation Capacity and Policy Coherence. The monitoring scope for these three topics, and a brief overview of applied methodology (thus far) is given.

We close this chapter with a reading guide.

2.1 Reflective monitoring in the MOVE21 WP6 Living Labs

The idea of cities as testbeds is central to MOVE21, and the project comprises three Living Labs in Oslo, Gothenburg and Hamburg. In the Living Labs of Oslo, Gothenburg and Hamburg, processes will be set-up to co-create knowledge necessary for choosing, tailoring and deploying the new solutions (innovations) for passenger and goods transport in the local contexts. This is done in the so-called Innovation Co-Creation Partnerships (ICCPs) in which actors from the local innovation ecosystem, local government and agencies, businesses and industries, knowledge institutes and academia and citizens or citizen groups, work together.

There is no blueprint for this process. By means of reflective monitoring, a regular reflection on the process is built in to help the Living Labs and its ICCPs to keep track and to learn how to better promote and deploy the selected innovations.

2.2 Introduction to Reflective Monitoring

Activities in the Living Labs are monitored by WP6 through a reflective monitoring approach, in addition to monitoring activities carried out by WP8 as part of the evaluation framework. The Reflective Monitoring is geared towards qualitative monitoring of the Living Labs and, in this way, creates a continuous loop of observations, reflections, and actions to improve the operation of the Living Labs and the deployment of innovations. It is about capturing lessons learned from the experiments and the process of co-creation in the Living Labs. In this project, the focus is on system solutions: solutions that are not (yet) proven and require more than a simple implementation.

"If a project wants to realize the far-fetching ambitions of system innovation, then reflection and learning must be tightly interwoven within it" (Van Mierlo, 2010, p. 11). Monitoring and reflection should therefore not only focus on the innovations itself but also – and in the case of the monitoring in WP6 – specifically on the process towards innovation. Reflective monitoring is part of the process, not just an action in itself and encourages the Living Lab participants to reflect on some key items: project ambitions, as well as current daily practices and their relation to the institutions and developments that allow opportunities for change and implementation of solutions.

The goal is to facilitate action-oriented learning. It facilitates reflections, observations and gathers lessons learned throughout the project that could in turn feed back into the project. The input from the Reflective Monitoring is used for organising exchange, trainings or workshops on topics like innovation capacity and policy coherence. Outcomes of the Reflective Monitoring process will feed into upcoming deliverables D6.7: *MOVE21 guide on improving city's capabilities for promoting sustainable mobility and logistics innovations* and D6.8: *Practitioners' guide for setting up self-sustaining Innovation Co-Creation Partnerships*.

The main topics for the Reflective Monitoring in the Living Lab cities are:

- Innovation Co-Creation Partnerships;
- Innovation Capacity;
- Policy Coherence.

For these topics the scope of monitoring is given in Figure 1. The monitoring methodologies consist of: WP6 Process Logbooks¹, Meeting Observations, Participant Exit Surveys, Semi-structured Interviews and Innovation Capacity Surveys. More details on the methodologies can be found in D6.1.

Within the Reflective Monitoring of the Innovation Co-Creation Partnerships local monitors have been appointed in each Living Lab to support WP6 on the reflective monitoring activities. The local monitors connect to the Living Lab Task Forces and are therefore up to date on important events, steps that are being taken or meetings that are coming up that might be interesting to include in the reflective monitoring process.

Innovation Co-Creation Partnerships	Innovation Capacity	Policy Coherence
• <i>What is being monitored:</i> • ICCP and Task Force establishment, interactions, development, stakeholder representation and roles and responsibilities • Co-Creation sessions and Knowledge brokerage sessions (incl. WP3, 4 and 5) • Policy Co-Creation sessions with policy-makers • Sustaining the ICCP beyond the lifetime of the project	• <i>What is being monitored:</i> • Present state of Innovation Capacity (Baseline) • Progress on Innovation Capacity including dedicated trainings and sessions organised on the topic of Innovation Capacity	• <i>What is being monitored?</i> • Process of formulating integrated policy responses • Implementation of coordinated or integrated policy responses • Process of removing obstructive policies and barriers • Uptake of policies in relevant city plans and strategies (e.g. SUMP/SULP)

Figure 1: Overview of monitoring scope in MOVE21 for Innovation Co-Creation Partnerships, Innovation Capacity and Policy Coherence

¹ The WP6 Process Logbook allow the Task Forces to keep track of their internal and external meetings, workshop or other events connected to the Living Lab in their city. It logs the date, type of event, participants and main agenda items.

2.3 Reading Guide

After the introduction (chapter 2) we give an overview of the methodology and approach in MOVE21 regarding the Living Labs (chapter 3). Chapter 4 reports on the status regarding the Innovation Co-Creation Partnerships in the Living Lab cities Oslo, Gothenburg and Hamburg. Chapter 5 shares insights on the reflective monitoring regarding Innovation Capacity, highlighting the status in the Living Lab cities on the elements of Leadership, Organisation, Knowledge Management, Network and Learning. Chapter 6 describes the concept of policy coherence and how the Living Lab cities are dealing with policy coherence and incoherences, focusing on a specific use case in each city.

Finally, chapter 0 gives an overview of conclusions and chapter 8 gives recommendations towards next steps and reassesses the reflective monitoring framework going forward. In this chapter further cooperations with other WP's are connected to the next steps. Also, an update on planning and timeline of the Reflective Monitoring is given.

3 Methodology and approach

MOVE21 is a European Horizon 2020 Innovation project that works on transforming European cities and their surroundings into smart, zero emission nodes for mobility and logistics. The overall project contributes to the target of participating cities to achieve 30% transport-related emission reduction by 2030 by implementing 15 transport-related innovations. These can be both technical and non-technical innovations. MOVE21 will connect urban systems via an integrated approach and address both goods and passenger transport. The aim is to improve efficiency, capacity utilization of existing vehicles and transport related infrastructure, accessibility, and innovation capacity in urban transport.

In this chapter we highlight the core of the methodology and approach in the Living Labs.

3.1 MOVE21 Living Labs

The three Living Labs in MOVE21 – Oslo, Gothenburg and Hamburg – co-create, test, deploy, and upscale (combinations of) technological and non-technological mobility innovations under real-life conditions. New solutions on local, regional, and corridor (TEN-T) level will be tested and those that are proven to pave the way toward a zero-emission future will be implemented, upscaled, and replicated. MOVE21 will test innovations that support climate-resilient transport solutions and facilitate zero-emission cities, taking into account social cohesion and liveability.

Oslo, Gothenburg, and Hamburg have committed to maintain the Living Labs beyond the lifetime of the project. Maintaining a Living Lab and its results is a known challenge (Gascó, 2017). In MOVE21, specific actions are taken – being aware of the possible pitfalls – to maximize the sustainability of the Living Labs in the cities: (i) policy actions to promote uptake of innovations through policy coherence, (ii) increasing the innovation capacity of the cities, and (iii) establishing and sustaining long-lasting innovation co-creation partnerships with a dedicated organisation and business model.

Below we describe the approach connected to each of these actions:

- establishing and sustaining long-lasting innovation co-creation partnerships with a dedicated organisation and business model – section 3.2 Quadruple helix innovation model;
- increasing the innovation capacity of the cities – section 3.3 Improving Innovation Capacity of the city governments;
- policy actions to promote uptake of innovations through policy coherence – section 3.4 Increasing Policy Coherence.

3.2 Quadruple helix innovation model

MOVE21 uses an innovative, agile, and iterative innovation and co-creation model which involves quadruple helix partners in the innovation process. The Living Labs are based on an open innovation model in which (local) quadruple helix partners will co-create, tailor, deploy, and upscale urban transport innovations. The Living Labs are geared towards lasting partnerships and upscaling impacts with focus on a self-sustaining partnership model and increasing innovation capacity and uptake in cities and local ecosystems. Innovations are tailored to the local contexts and bottlenecks for deployment are removed.

The quadruple helix partners consist of representatives from government, private sector, knowledge institutes, and citizens/civil society. The Innovation Co-Creation Partnership is the specific collaboration between local actors (Quadruple Helix) to shape and implement the MOVE21 measures in the local context. Figure 2 shows the general governance scheme of the Living Lab, and indicates the relationships between the ICCP, Task Force (TF), test sites, knowledge brokerage and existing partnerships (i.e. those possible networks adopting the ICCP in their existing organisational structures beyond the lifespan of the MOVE21 project). We will describe the role as foreseen for each entity in the governance scheme.

Living Lab City

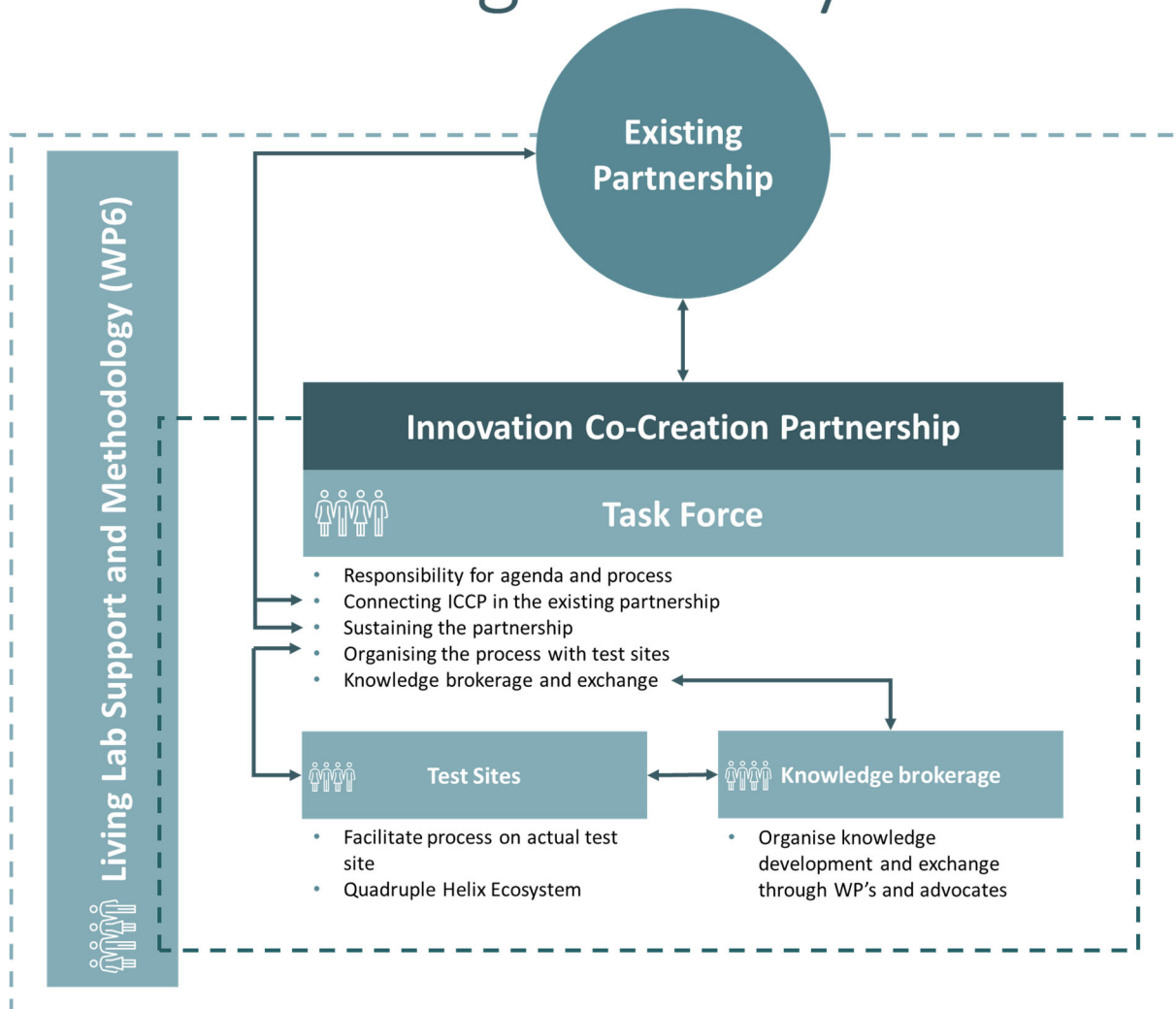


Figure 2: Governance of the Living Lab and the ICCP

3.2.1 Innovation Co-Creation Partnership

The Innovation Co-Creation Partnership (ICCP) is the specific collaboration between local actors (Quadruple Helix) to shape and implement the measures of MOVE21 in the local context. This collaboration takes into account all quadruple helix stakeholders; governments, the private sector, knowledge institutes and citizens/civil society. The ICCP will be 'adopted by' an existing (city-wide) partnership. This is important for its continuation after the MOVE21 project is finished. MOVE21 needs to confirm the match with the local partnerships, to make sure they are willing to adopt the ICCP within their existing structures. Each Living Lab will have one ICCP, tailored to the local context.

3.2.2 Task Force

The ICCP has a Task Force that will act as the core team of the ICCP that is responsible for the agenda and process, organizing the ICCP and safeguarding progress and sustainability of the ICCP. Furthermore, the Task Force will organize the process with the test sites as well as the knowledge brokerage and exchange.

The Task Force consists of 4-6 persons, representing quadruple helix stakeholders and local partners. The ICCP/TF appoints a main contact point for the ICCP. The exact composition of the Task Force will be determined by each Living Lab City.

3.2.3 Test sites

In the Living Labs in MOVE21, often more than one location is studied. These specific locations are called test sites. Since the locations often are quite diverse, each test site requires its own quadruple helix ecosystem in cooperation with the TF. The participants of the test sites should be determined by a stakeholder analysis. Each test site has decided to bring forward a lead contact.

3.2.4 Governance operationalisation

As already mentioned above, the governance scheme needs to be adapted to the context in each Living Lab City. There is no one solution to the governance of the partnerships, but the key elements have been presented to guide the Living Labs in the Set-up Stage of the Living Lab. How this has been developed in each Living Lab city, and also has developed over time, is elaborated in chapter 4 *Interim Report: Innovation Co-Creation Partnerships*.

3.3 Improving Innovation Capacity of the city governments

With cities taking an important role in facilitating urban innovation, their city governments must have the capacity in place so their cities can fulfil this role adequately. Different types of skills, structures, and capabilities are highlighted in literature (Timeus, K. and Gascó, M., 2018). Building on this body of literature and by adapting findings from presented by the OECD (2019), MOVE21 will focus on three interdependent pillars to improve the innovation capacity in the Living Lab cities (Figure 3). The first pillar “organisation” contains the organisational factors, such as leadership, a dedicated team that knows how to co-create and support innovations in the city, with easy access to other relevant departments, enough funding to do the tasks, and Human Resource Management (HRM) policies in place that reward activities and behaviour that will generate and support innovations. The second “Partnerships” pillar contains the capability of the city government to deal with the outside world of stakeholders, relevant networks, the local innovation ecosystem, and quadruple helix actors (including citizens and representatives of civil society). Common to both these pillars is governance and co-governance capabilities, which are important factors for the innovation capacity in the Living Lab cities and, thus, for the deployment and upscaling of the proposed innovations. The final pillar “Technology, data and knowledge management” contains the capabilities to deal with relevant data, information, knowledge and technology for designing innovations and for their uptake and upscaling.

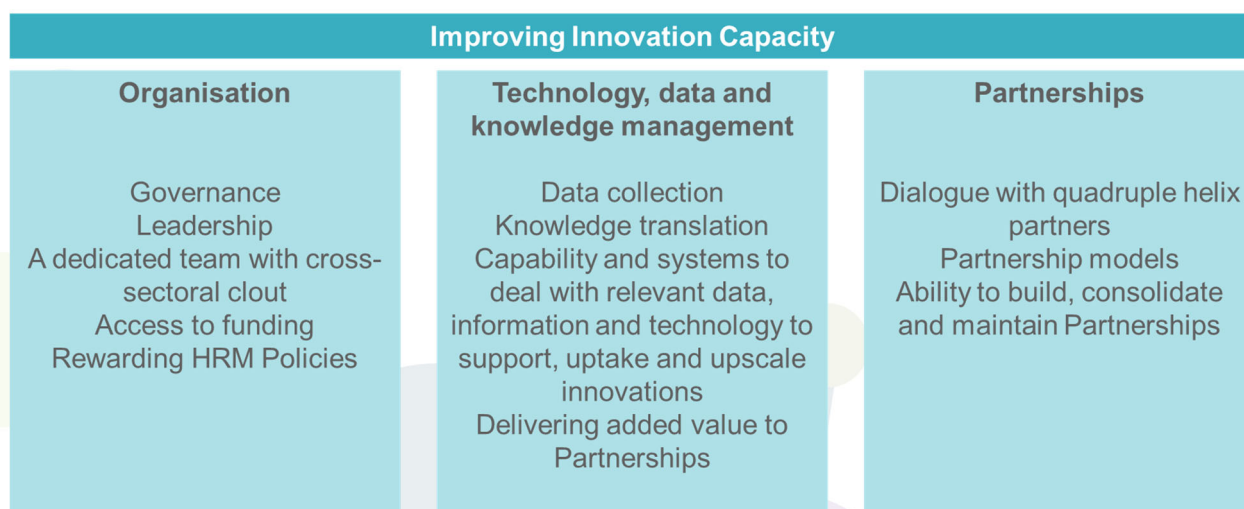


Figure 3: Three main pillars of innovation capacity of cities

These pillars have been translated to a framework for innovation capacity in order to assess the Living Lab cities. MOVE21 uses a categorization that contains five elements of innovation capacity: Leadership, Organisation, Knowledge Management, Network and Learning (see chapter 5 *Interim Report: Innovation Capacity* for further operationalisation). Whereas Leadership and Organisation connect to the pillar Organisation, Knowledge Management connects to the pillar Technology, data and knowledge management. Network connects to the pillar of Partnerships and finally Learning connects to the overall ambition to improve innovation capacity.

3.4 Increasing Policy Coherence

Cities will support the uptake of the innovations from the Living Labs through corresponding policy objectives and actions. The three Living Lab cities each have relevant policy goals in place for the short and long term. The transformation of current urban transport systems into zero emissions, climate resilient systems will require a holistic systems perspective that interacts with other systems in the city, for instance data/information, energy and spatial systems. These planning concepts should be considered in the broader context of policy integration and coherence: not only in terms of integrated plans but rather as ambitions to align and integrate the design and substance of central policy domains in order to increase policy coherence (EEA, 2016).

MOVE21 supports the ability of decision makers to increase policy coherence and policy integration in central policy domains (transport, spatial planning, energy) through dedicated tasks. The improved alignment or integration as a result of MOVE21 activities will deliver synergistic win-win effects between policy goals and policy tools.

MOVE21 aims is to bring participating cities a few steps closer to policy coherence and aligned or integrated policy planning related to mobility, logistics, infrastructure, energy and spatial planning to deliver on the multiple targets of the cities while increasing liveability and attractiveness of cities as places to live, work and invest. With policy coherence, we focus both on vertical policy coherence (e.g. between levels of government, f.i. EU, national, regional, local) as well as horizontal policy coherence (e.g. across sectors and domains).

The steps taken to increase policy coherence and first insights are presented in chapter 6 *Interim Report: Policy Coherence*.

4 Interim Report: Innovation Co-Creation Partnerships

In this chapter, the interim results regarding the monitoring activities for Innovation Co-Creation Partnerships are shared for the three Living Lab cities of Oslo, Gothenburg and Hamburg. The chapter will first shortly introduce the development stages of the Innovation Co-Creation Partnerships. This is followed by an overview of the applied methodologies, tasks and efforts thus far to monitor the activities related to the ICCPs.

Then, each Living Lab is introduced by their organisational model that illustrates the set-up of the Innovation Co-Creation Partnership, the Task Force and the test sites (Gothenburg and Hamburg) or concepts (Oslo), and the actors involved in each. This is followed by insights on the Set-up Stage, Maturing Stage, Task Force and ICCP meetings, Co-creation sessions on MOVE21 solutions and Knowledge Brokerage processes with WP3, 4 and 5 Finally, some preliminary insights and challenges will be documented (for all three Living Labs), as well as detailing next steps going forward.

4.1 Innovation Co-Creation Partnerships

4.1.1 The development stages of the Innovation Co-Creation Partnership

The MOVE21 Living Labs, with the Innovation Co-creation Partnerships at their core, develop in three stages and work towards becoming self-sustaining, continuing beyond the lifetime of the project (see Figure 4: Development stages of the MOVE21 Innovation Co-creation Partnership).

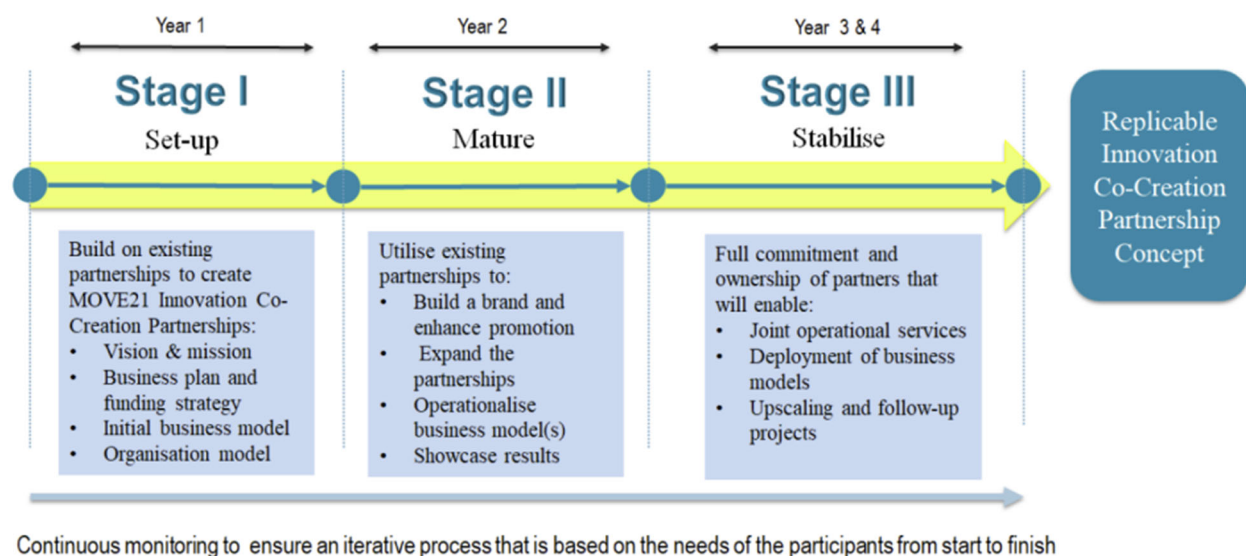


Figure 4: Development stages of the MOVE21 Innovation Co-creation Partnership

Deliverable D6.5 *Living Labs Establishment Report* focused on describing results from Stage 1 (M1-12), the Set-up: establishing Innovation Co-Creation Partnerships in the Living Labs. This Deliverable, D6.6, looks at Stage 2 (from M13): Maturing the Innovation Co-Creation Partnerships. Furthermore, an outlook is given to future steps taken towards Stage 3: Stabilising the Innovation Co-Creation Partnerships.

Hereafter, the main tasks for all three different stages are shortly described, for a more elaborate description we refer to Deliverable 6.5.

In the Set-up Stage, each Living Lab Task Force develops the following activities:

- The vision and mission of the ICCPs, that clarifies roles and guides the further development of the Partnerships during all subsequent stages;
- A business plan and funding strategy for the long term;
- An initial business model for the Partnership;
- A Local Communication Plan;
- An organisational model that facilitates the Partnerships and a founding document that describes vision and mission, organisational structure, role of the Task Force, roles and tasks of participants, rules for accession and departure, rules for decision making and conflict resolution.

During the Maturing Stage, the following activities are conducted:

- The Partnerships commit themselves to promote and enforce the branding of the MOVE21 Innovation Co-creation Partnerships and the innovations developed. This collaboration will be formalised and structured.
- The local network is expanded to encompass all actors that have an important impact on the deployment of urban mobility and logistics innovations. It is an agile network that expands and shrinks with the occurrence of certain opportunities and obstacles during the deployment and upscaling of the innovations. The actors will to an extent be the same in the existing partnerships and the MOVE21 Innovation Co-creation Partnerships.
- The milestones reached and the impacts of the sustainable mobility and logistics innovations are showcased to support and enhance motivation locally and used for outreach to other EU cities via factsheets, online events and study visits.
- Initial business models are tested and adapted to the local context and the experiences of the ICCPs. The investment plan for the Partnership is completed.

In the Stabilising Stage, the following activities are deployed:

- Operational services and joint facilities are developed;
- Dedicated business models for mobility and logistics service innovations are developed and deployed;
- Upscaling and follow-up open innovation projects are developed (local, national, or international remit).

4.1.2 Monitoring the Innovation Co-Creation Partnerships

In the beginning of the MOVE21 project (in D6.1) a set of monitoring activities and methods with regards to Innovation Co-Creation Partnerships were defined. In Table 1 the methodologies for the monitoring activities related to the Innovation Co-Creation Partnerships are given.

Table 1: Proposed monitoring methodologies for the ICCP's (extracted from D6.1)

Activity	Monitoring Detailing and Methodology
Task Force	Monitor through analysis of the WP6 Process Logbook, observations and interviews: TF meetings, representation in the TF; roles, ownership, community and/or shared responsibility in the TF
ICCP-meetings	Monitor through analysis of the WP6 Process Logbook, observations and exit surveys: ICCP establishment and meetings; role, tasks and representation of ICCP; topics discussed, processes, dynamics, interactions of ICCP; satisfaction of involved participants
Co-creation sessions on MOVE21 solutions	Monitor through WP6 Process Logbook, observations and exit surveys: Number of sessions, objectives, involved parties, outcomes

Activity	Monitoring Detailing and Methodology
	and follow-ups; processes, dynamics, interactions of ICCP; satisfaction of involved participants
Knowledge brokerage sessions on specific topics with WP3, 4, 5	Monitor through WP6 Process Logbook, observations and exit surveys: Number of sessions, objectives, involved parties, outcomes and follow-ups; topics discussed; processes, dynamics, interactions of ICCP; satisfaction of involved participants
Policy co-creation sessions amongst policy makers from various domains	Monitor through WP6 Process Logbook, observations and exit surveys: Number of sessions, objectives, involved parties, outcomes and follow-ups; topics discussed; processes, dynamics, interactions of ICCP; satisfaction of involved participants
Sustaining the ICCP beyond the lifetime of the project	Monitor through WP6 Process Logbook, interviews and exit surveys: activities taken up by the ICCP, involved parties, outcomes; experiences, lessons learned, future cooperation, sustainability; overall satisfaction, future collaboration

For this deliverable input has been gathered from several sources:

- The WP6 Process Logbooks – here different ICCP related meetings are listed; this links to specific ICCP meetings, as well as additional meetings with current and potential ICCP-members.
- Task Force Meetings and bilateral meetings with the Living Lab cities, including joint meetups with the Living Lab project managers – giving input on topics, challenges, observations.
 - In February 2023 the Task Force meetings with WP6 were dedicated to the topic of the ICCP – Maturing Stage. Here information was collected on the status, challenges and progress.
- Knowledge brokerage sessions (bi-monthly) set-up by WP6 between the Living Labs with WP3, 4 and 5, started from November 2022 – discussing relevant topics and follow-up interactions.
- D6.5, detailing information about the Set-up Stage of the ICCP.
- Input from local monitors in the Living Lab cities, through observations, collected information from exit surveys and local monitor reflection sessions with WP6.

Hereafter, we will give an overview of the status on the Innovation Co-Creation Partnership in each of the Living Lab cities – Oslo (2.2), Gothenburg (2.3) and Hamburg (2.4). We will close this chapter with conclusions, insights and next steps (2.5).

4.2 Oslo

4.2.1 Description of the ICCP of Oslo (Set-up Stage and Maturing Stage)

This section details the collected insights regarding the Innovation Co-Creation Partnership in Oslo. It builds on the status in the Set-up Stage, and details information about the current Maturing Stage, looking towards sustaining the ICCP beyond the lifetime of the project.

4.2.1.1 Organisational model

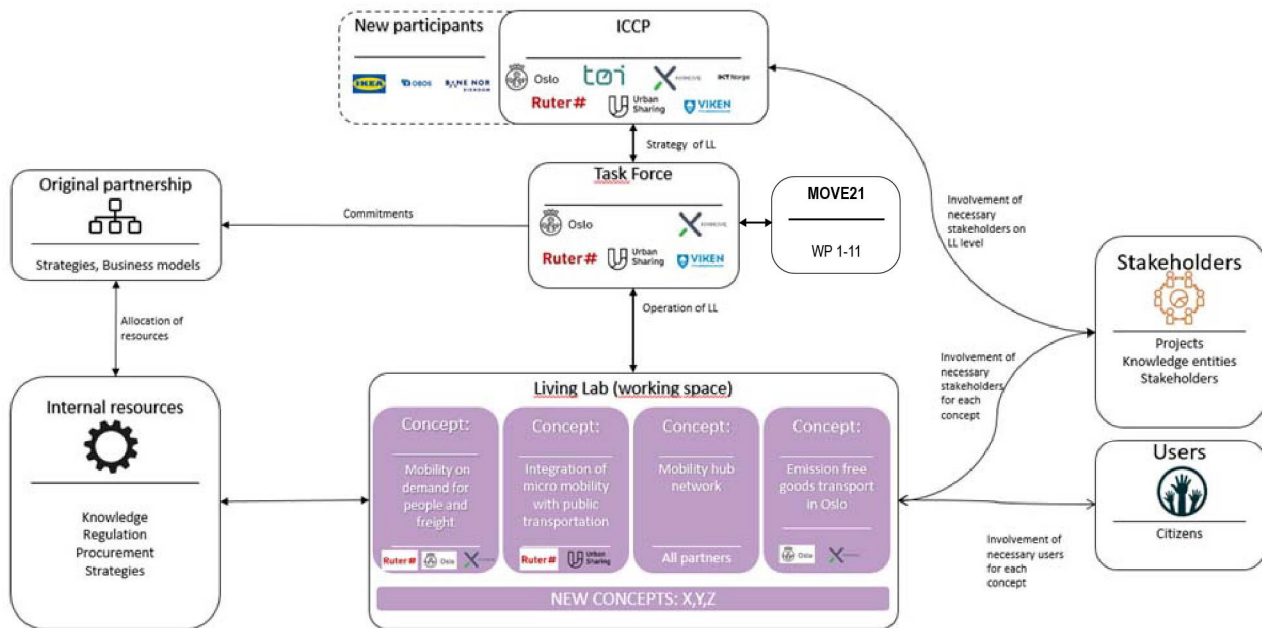


Figure 5: Organisational model of the Oslo Living Lab

As the organisational model shows (Figure 5 – for a larger view, see Appendix A – Organisation model Oslo Living Lab) the ICCP consists of partners of government, businesses, and a knowledge institute. Compared to deliverable 6.5, the following actors are added to the ICCP: Bane NOR, IKEA, OBOS (housing association).

The TF consists of partners of government and businesses, while citizens and/or civil society connect to the project at the level of the concepts. In the current Maturing Stage, this organisation structure continues. Since Deliverable 6.5, the TF in Oslo has changed. TOI (Institute for Transport Economics) is no longer part of the TF and the Viken County has been added.

As a change at the level of the concepts, since Deliverable 6.5 Ski Station is no longer a concept.

D6.5 listed four challenges concerning the organisation model for all LLs in the Set-up Stage. For this deliverable, the TF in the Oslo Living Lab reflected on these challenges:

Challenge 1: Connecting distinct fields of passenger mobility and freight transport in the Living Lab organisational model.

Connecting the distinct fields is still a challenge. All TF members acknowledge the need to connect these fields, however, the implementation of measures and the collaboration between partners (also beyond the ICCP) must still be assessed to determine which approaches work.

Challenge 2: Implementing the Living Lab organisational model within existing network and organisational settings in the city, and inviting quadruple helix stakeholders.

More than the organisational model itself, implementing the model has shown that the difference in culture of the different organisations is challenging. The LL work approach differs from that of many organisations, including the city administration. Working in silos is discouraged and cooperation among LL actors on shared problems and goals is encouraged. But, practices on how to do this differ. Cooperation with the citizens or civil society mainly takes place connected to specific measures and sites.

Challenge 3: Establishing clear roles in the Living Lab organisation.

Original role descriptions of the Living Lab organisation do not always sufficiently cover the tasks that need attention. The TF had an exercise on ownership of results. This was a difficult task for all involved, especially for public organisations since it is a new way of working. The private sector understood this better.

Challenge 4: Sustaining the Living Lab organisational model beyond MOVE21 project.

There has not been time to look beyond the lifetime of MOVE21. Sustaining both the organisation and the working culture could be a challenge.

4.2.1.2 Vision and mission

In the Set-up Stage, the Oslo Living Lab formulated the overall goal to contribute to the Climate Strategy for Oslo towards 2030 (2020) which is a central policy strategy in Oslo, and to help achieve its ambitious climate targets but also the target of traffic reduction by one-third by 2030 compared with 2015. In the Maturing Stage, the set vision is still valid; however, it is a challenging situation to live up to what we promise. To communicate to partners, the vision is mostly presented via three pillars: climate strategies, optimization of space and traffic reduction. Currently, the step from vision to mission is a challenge. If we stay with this vision and the project, we need to come up with new ways to come close.

D6.5 listed three challenges concerning the vision and mission for all LLs in the Set-up Stage. For this deliverable, the TF in Oslo Living Lab reflected on these challenges:

Challenge 1: Connecting the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities.

Translating the vision to three main pillars has helped to communicate to local stakeholders. The step from vision to mission is a challenge. This step also entails a political process, or a process in which city departments are involved rather than only the different agencies of the City of Oslo.

Challenge 2: Anticipating changes in visions and missions over time due to stakeholder involvement.

Each measure has its own vision/goals to achieve. These align with the overarching vision/goals of Oslo Living Lab (e.g., Mobility hub network: Increase liveability without the need for private car). This simplifies engaging with businesses and generates their interest in collaboration.

Challenge 3: Anticipating the feasibility of visions and missions given existing governance structures and decision-making about passenger mobility and freight transport in the city.

Regarding feasibility, the TF needs to involve more partners that provide mobility/logistic services. The TF needs to be aware that these partners have a minimal budget, and they will thus hesitate to invest if the business opportunities are not clear. Currently, the TF uses concepts to get stakeholders on board. It would be easier if they were already in the consortium.

4.2.1.3 Financing strategy and business model

Following the Set-up Stage, Oslo LL primarily focused on the concepts with the aim to ensure that concepts consist of viable business models on an operational level. Strategic financing and the business model for the ICCP have not been discussed. The TF's assumption is that it is best to first demonstrate that the Oslo Living Lab can develop viable solutions in order to attract actors interested in investing in the Oslo Living Lab as a whole. Oslo LL will focus on strategic financing and the business model for the ICCP in 2024.

D6.5 listed two challenges concerning financing strategy and business model for all LLs in the Set-up Stage. For this deliverable, the TF in Oslo Living Lab reflected on these challenges:

Challenge 1: Developing and connecting realistic financing strategies and business models for both the ICCP and (local) interventions/concepts/solutions.

The TF is testing financing strategies and business models mostly on the concept level, however no viable business models on the level of the LL or the ICCP have been developed yet.

Challenge 2: Engaging stakeholders in the Living Lab without offering financial incentives.

If the TF connects to new stakeholders, there needs to be a specific context to join the LL. The TF has no funding to offer, thus mainly establishes the connection on the level of knowledge. The prerequisite for this to work out positively is that stakeholders have an agenda in line with MOVE21.

Several actions have been taken to engage stakeholders. Examples are:

- The TF focus has focused on implementing measures in order to show the industry that this network is interesting to join.
- The TF looks for synergies (short- and long term) where everybody benefits. This is not always funding, but also solving common frictions.
- From a user perspective integrating services in, for instance, one app, is preferable. However, to do so each provider needs to agree on how to split revenues or static/fluid availability management. In many cases, this sometimes leads to an impasse.

4.2.1.4 Expand the partnership

The Oslo LL has experienced that it takes a lot of effort to make connections as external partners have other priorities. Overall, the first talks with partners are very positive, but when it comes to practicalities, e.g., signing agreements, then it is another matter entirely.

The ecosystem is expanding, among others due to other EU projects that wish to collaborate and this makes MOVE21 also more visible.

Oslo LL maintains an ongoing dialogue with the business community. This communication typically occurs at the level of specific initiatives. For instance, Mobility hub network, engages with mobility operators and has established strong collaborations with actors involved in the development of the mobility hub in Grorud. These collaborations include Bane NOR Eiendom, Voi, Lime, Bikelly, Hyre and Getaround. As another example, the emission-free goods transport initiative primarily focuses on logistics operators and shippers for its development. Regarding the Mobility as a Service (MaaS) project, the aim is to enable partnerships between public and private mobility operators, improving multi-

modal travel uptake and reducing car ownership, congestion and pollution, and enhancing infrastructure investments.

The City of Oslo has made an agreement to cooperate with BaneNor Eiendom (real estate department of railway infrastructure) and has linked this agreement to MOVE21 and the Oslo Living Lab, and is actively working on establishing similar agreements with OBOS and IKEA. The latest ICCP-meeting (June 2023) included the participation of OBOS and Bane NOR Eiendom. IKEA also received an invitation but was unable to attend.

4.2.1.5 Operationalise business model(s)

The Oslo Living Lab has not yet developed a business model for the ICCP. At the level of the concepts, there have been a lot of discussions about the business models for different measures, but these models haven't been tested yet.

4.2.1.6 Build a brand and enhance promotion

There is the option to build a MOVE21 brand or to enhance existing brands (e.g. supported by MOVE21). Currently, branding is taking place at the level MOVE21 (instead of ICCP specific) and at the level of the test sites. Also, individual partners have room to build their own brand. For instance, Ruter brands their solution "order a bike at the same time as buying a bus ticket". Other test sites and the overall project need another year to further develop the branding.

4.2.1.7 Showcase results

In the Maturing Stage first measures and concepts are implemented and therefore showcased. In the Oslo Living Lab the following concepts and innovations have been showcased.

Ruter and MixMove will test a new way to efficiently transport goods and reduce traffic by combining the transport of people and freight in its Mobility on Demand (MoD) service for seniors. The service, which transports seniors to key destinations such as shopping centres, will also offer home transportation of goods purchased from stores in the shopping centre. Currently, the Integration between information systems has been completed, and the solution may be implemented in any shopping centre that wants to offer home transportation of goods.

Urban Sharing develops a Mobility as a Service (MaaS) project that simplifies integration for public and private mobility operators. The project uses an Application Programming Interface (API) developed by Urban Sharing, which is a simple and lightweight version of the existing Transport Operator to Mobility Provider (TOMP) standard. The API is language agnostic, allows mobility operators to handle customer support directly, and maintains GDPR compliance by excluding personally identifiable information. The aim is to enable partnerships between public and private mobility operators, improving multi-modal travel uptake and reducing car ownership, congestion and pollution, and enhancing infrastructure investments. Urban Sharing pilots this approach with active mobility operators and creates guidelines for fostering smoother collaboration between public and private entities in the European mobility space.

On 31 August 2023 the City of Oslo's Mobility Hub Network launched its first mobility hub. The existing mobility hub at Grorud Station (land owner Bane NOR Eiendom) was improved by transforming a park and ride facility into an attractive mobility hub. The mobility hub consists of electric bikes from Lime, electric scooters from Voi, smart bike lockers from Bikely, car sharing from Hyre and Getaround, and autonomous vehicles that are part of the ULTIMO project (Horizon Europe Grant agreement 101077587), which seeks to enhance public transport. This hub showcases a combination of options that cities and regions can take into consideration for more sustainable transport.

The fourth measure in the Oslo Living Lab is Emission free goods transport. This measure is under development and has not been realised yet. The City of Oslo aims to test a solution that reduces the overall energy consumption and the number of kilometers driven within urban logistics by developing a sustainable solution for consolidating goods across value chains. The solution will gather goods from

various suppliers, consolidate, and reload them onto environmentally friendly vehicles. This could lead to more targeted last-mile distribution with high delivery density. The main challenge for a successful solution is achieving a sufficient volume of goods. Therefore, the project collaborates closely with various suppliers to find an optimal operation and business model for the solution. Ultimately, this could become the city's new tool to influence how goods are transported within the city's borders, and influence how goods flow from corridor-level (TEN-T) to the urban area.

4.2.2 Interactions in the ICCP of Oslo

This section details the collected insights regarding interactions in the ICCP of Oslo. We will describe the following interactions and the development in the interactions:

- Task Force meetings
- Knowledge Brokerage with Work Packages 3, 4 and 5
- ICCP meetings
- Co-creation sessions on MOVE21 solutions

Task Force meetings

Instead of the weekly meeting – as was done during the Set-up Stage, the TF currently meets every two weeks. The main agenda usually consists of a general status update, the status for each concept (status provided by concept leaders), the advocates mention what has happened in collaboration with the other WPs. Furthermore, depending on the need, there is time to collectively discuss issues that are relevant.

Knowledge Brokerage with Work Packages 3, 4 and 5

Since Deliverable 6.5 Knowledge Brokerage meetings have taken place between the TF and work packages 3, 4 and 5. The main topics were: the Advocates for WP3/4/5 in Oslo Living Lab (e.g. role); how to combine people and goods on vehicle side (WP4); Digital Twin (WP5); knowledge exchange regarding urban logistics (how to establish neutral consolidation terminals) (WP5); reflection on the LL innovations by WP3/4/5 as part of the ex-ante monitoring and evaluation.

ICCP meetings

The agenda of the ICCP meetings varies, depending on the most relevant issues.

The Oslo Living Lab has held four ICCP-meetings. The original plan was to conduct these meetings regularly.

Each of the meetings have been structured into two segments. The first segment focuses on the status of the project's ongoing activities. This arrangement is designed to ensure that all participants are equipped with necessary information and a comprehensive understanding of the project's advancement, along with related challenges.

The second segment primarily revolves around strategic discussions concerning the Oslo Living Lab. The topics covered have fluctuated depending on the level of maturity and progression in the Oslo Living Lab. In its initial stages, the Oslo Living Lab's emphasis was predominantly on the collection of information and the establishment of a common perception of the challenges. Participation in these early discussions was restricted to the local partners on operational level. The themes deliberated upon were idea generation, preferences, wishes and expectations from local partners and the type of approach the Oslo Living Lab should adopt in engaging with the business community. This involved the selection of participating entities in the ICCP, methods for initiating collaboration, and definition of combining people and freight.

As the Oslo Living Lab advanced and matured, external stakeholders beyond the local partnership were included in the dialogue. This expansion was intended to highlight the project's inherent value and chart the future trajectory. During the most recent ICCP meeting, the discussion was directed towards an examination of how local partners could ensure the expansion of solutions. The conversations raised questions about how different partners could facilitate scaling, as well as the mechanisms available

within the framework of the Oslo Living Lab. For this purpose, invitations were extended to diverse organisations which Oslo LL through the City of Oslo is collaborating with such as Bane Nor Eiendom, OBOS and IKEA. This last ICCP meeting has not been followed up with the ICCP, so priorities for the ICCP and the wider community, including the policy-level in the City of Oslo, remain unclear.

Co-creation sessions on MOVE21 solutions

The TF co-creation sessions of the Maturing Stage have aimed to further develop the concepts to ensure that the solutions consist of the right components and have sustainable business models. The sessions not only lead to the improvement of concepts but also open up opportunities for new ideas that can enrich solutions or be worked on in addition to what is already on the table. Examples of sessions on the concepts were the Mobility Hub Network: the main focus of the co-creation sessions was on mobility services; and the emission-free goods transport: here the main focus was on shippers. Moreover, co-creation workshops looked at business models, behaviour changes and locations.

4.2.3 Observations and insights regarding the ICCP of Oslo

Oslo's organisational model allows changes in partners or test sites without these harming the main set-up of the TF or the ICCP. The LL is still in the Set-up Stage, with some activities moving into the Maturing Stage. Until now the TF did not look thoroughly into sustaining the ICCP beyond the lifetime of MOVE21. In 2024 the TF aims to suggest a viable business model on the level of the ICCP.

Some of the main challenges (and some connected breakthroughs) of the Oslo TF were:

1. Organisational model: Implementing the Living Lab organisational model within existing network and organisational settings in the city remains a challenge. Citizens or civil society are connected to the LL at the level of the concepts,
2. Vision-mission: the step from a vision to a mission was a challenge, a breakthrough was translating the vision to three main pillars, which has helped to communicate to local stakeholders.
3. Financing strategy and business model: mobility providers have low budgets and they will thus be hesitant to invest if the business opportunities are not clear, this links to the operational business models of innovations. The TF learned that looking for synergies (short- and long term) where everybody benefits and solving common frictions can also attract partners, this links to the strategic business model on the level of the ICCP.
4. Expanding partnerships: Overall the first talks are positive, but when aiming to make things more concrete, partners have other priorities.
5. Operationalise business models: Integrating goods and people is a challenge, among other things, it needs to become clear on how the revenues or static/fluid availability management for each provider is split.
6. Branding and showcasing: it needs to be determined what works best, should we build a MOVE21 brand or enhance existing brands (e.g., supported by MOVE21)?
7. The use of public space: there are strict rules concerning the use of public space and the rules can only be bent to a certain extent. Especially, when setting up other hubs in other locations, this needs to be looked at.

4.2.4 Next steps in the ICCP of Oslo

Currently three new partners have shown interest in participating in the ICCP (there is not an agreement yet). These partners have a more forward-looking perspective and see the advantage of the ICCP as a platform to test new innovations. Their perspective gives the existing ICCP partners food for thought concerning the ICCP and the ambition to sustain the public private collaboration beyond the lifetime of the project.

The TF will start a discussion on the viability of the business model and continuation of the ICCP together with the ICCP, and would like more input from the WPs on these and other topics.

4.3 Gothenburg

4.3.1 Description of the ICCP of Gothenburg (Set-up Stage and Maturing Stage)

This chapter details the collected insights regarding the Innovation Co-Creation Partnership in Gothenburg. It builds on the status in the Set-up Stage, and details information about the current Maturing Stage, looking towards sustaining the ICCP beyond the lifetime of the project.

4.3.1.1 Organisational model

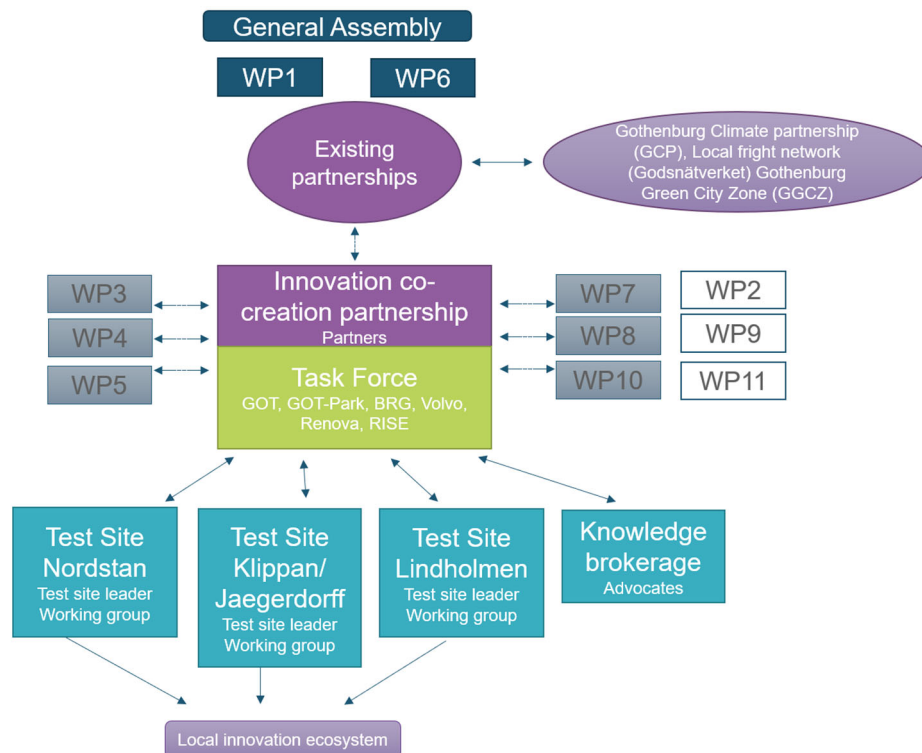


Figure 6: Organisational model of the Gothenburg Living Lab

As Figure 6 illustrates (for a larger view, see Appendix B – Organisational model Gothenburg Living Lab), the ICCP consists of partners of government, businesses, and a knowledge institute. In M18 (October 2022) the Gothenburg ICCP consisted of the City of Gothenburg (Urban Transport Administration, Sustainable Waste and Water Department), the Business Region Gothenburg (procurement, innovation capacity), VOLVO (electric charging, technological solutions), Göteborg Stads Parkering AB (the city owned parking company) (Klippan, lateral technology solutions), RENOVA (Lindholmen, reverse logistics) and RISE (governance innovation and innovation exploitation). Due to reorganisation in the City of Gothenburg, the Urban Transport Administration changed name to Urban Environment Department. Bridges are being built with other groups within the Urban Environment Department.

The composition of the TF has developed based on the Living Labs status and needs. In the Set up-Stage a knowledge institute was part of the task force, providing knowledge and facilitating the establishment of the Living lab. In the Maturing Stage the following actors are involved: the Urban Environmental Department, Göteborg Stads Parkering AB, Business Region Göteborg AB, Volvo and Renova Miljö AB. RISE is not a formal partner of TF. They have the role of a local monitor and are the lead of a test site.

As described in D6.5, the Gothenburg TF was planning on appointing leads in each test site. These test site leads have been established and organise the process in each test site location. Moreover, each

test site now has a dedicated working group, that, among other things, oversees the process in the test site, develops measures and organises test activities.

The test sites, their accompanying leads and members of the working groups are:

- Nordstan: Business Region Göteborg is the lead and the real estate association Nordstans Samfällighetsförening (as part of the test site ecosystem) are included in every other working group meeting.
- Klippan/Jaegerdorff: Urban Environment Department is the lead and projects “Pilotområde Cykel” (assigned by the municipal council) and “Mobilitet Rosenlund” (funded by the Swedish Transport Administration) are included in regular meetings.
- Lindholmen: RISE is the lead and numerous property owners are included in meetings.

The test site leads and the Living Lab project manager have a joint weekly stand-up meeting to oversee progress, identify challenges and need for support.

Since D6.5 possible collaborations and exchanges have been set-up with the existing partnerships: Gothenburg Climate Partnership (GCP), Godsnätverket (local freight network) and Gothenburg Green City Zone (GGCZ). GGCZ is considered the most suitable partnership to continue with. Gothenburg Green City Zone was established jointly by the City of Gothenburg, Volvo Cars and RISE in 2021 as an ambitious initiative towards zero-emission transport. GGCZ is established based on previous efforts and work, and is driven by the combined goals of the city, academia, and the local business community, and occurring concurrently with endeavours to designate Gothenburg as one of EU's 100 climate-neutral cities and to establish pioneering projects like MOVE21. During the maturing phase of the Gothenburg ICCP, dialogue is ongoing regarding how to best sustain both the specific measures developed in MOVE21 and associated processes and collaborations.

Another important development, that is not visible in the organisational model, is that bridges are being built with other groups within the Urban Environment Department, with other parts of the City of Gothenburg, and with other stakeholders in the local innovation ecosystem. In this phase, the project has been further anchored in other parts of the City of Gothenburg, for example through an established working group on mobility hub guidelines, led jointly by Urban Environment Department and the Urban Planning Authority. In each test site, several different measures are being implemented. Engagement of different stakeholders from the local innovation ecosystem differs between different measures, for example: several micro-mobility and micro-logistics companies are participating in the micro-mobility hotel Nordstan and several property owners participate in the measure EIFFEL (Effectivize and minimize For Future ELectrified building properties) in Lindholmen test site.

D6.5 listed four challenges concerning the organisation model for all LLs in the Set-up Stage. For this deliverable, the TF in Gothenburg Living Lab reflected on these challenges:

Challenge 1: Connecting distinct fields of passenger mobility and freight transport in the Living Lab organisational model.

A challenge is not just to connect these distinct fields but also to question what is in between those fields. E.g., the craftsman hub: it is not freight, since it is not delivery, nor people mobility. Thus, it is not about just connecting different fields but also addressing issues that are connected to both areas. An example of such an issue is the accessibility of micro mobility, which is relevant for both passenger mobility and freight transport. In the specific case of the handyman hub in the micro-mobility hotel Nordstan, service technicians use cargo bikes, not for delivery, but to transport themselves and their equipment.

Challenge 2: Implementing the Living Lab organisational model within existing network and organisational settings in the city, and inviting quadruple helix stakeholders.

Test sites have specific sub-ecosystems with targeted stakeholders, which are part of the working group but civil society is not always reflected in each site. The different test sites have, to some extent, reached out to more stakeholders. For example, in Lindholmen much effort has been made to engage and commit local property owners, including municipal real estate developers and in Klippan/Jaegerdorff open day events and on-site surveys among residents have been held. Together with WP3, further work to involve citizens and gain public acceptance for solutions is currently planned.

Challenge 3: Establishing clear roles in the Living Lab organisation.

A LL meetup called “MOVE21 Forum” was held in September 2023 as an onboarding for new colleagues, and a project progress update at the halfway point. The establishment of working groups for each test site with appointed test site leaders has proven to be a successful set up to clarify roles and expectations.

Challenge 4: Sustaining the Living Lab organisational model beyond MOVE21 project.

Concerning long term sustainable partnerships, currently it is more of an informal structure and there is no long-term solution established yet. The current organisational model will probably not be sustained, but some sort of organisational model will exist. The different measures developed will, at least to some extent, continue and the knowledge and experiences from the Living Lab procedures will be embedded into future work. For sustaining this specific partnership, a business model is needed to evolve. Currently, the strategies to obtain those resources include seeking to secure municipal strategic funding, in-kind contributions (through working hours) of participating stakeholders, and potentially additional public funding from various levels of government outside of the municipality of Gothenburg.

4.3.1.2 Vision and mission

The vision of the Gothenburg Living Lab is to transform Gothenburg into a smart zero-emissions node for mobility and logistics. The vision and mission have helped us to get together, provide direction, align goals, and set up test site working groups. It is not set in stone. In the Set-up Stage, the Gothenburg Living Lab formulated missions for each of the test sites. These test sites missions were developed to provide guidance and to outline the project’s purpose and direction. They have been instrumental in helping the TF to decide on measures, activities, and aligning team members. The missions are flexible and can be updated.

D6.5 listed three challenges concerning the vision and mission for all LLs in the Set-up Stage. For this deliverable, the TF in Gothenburg Living Lab reflected on these challenges:

Challenge 1: Connecting the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities.

The measures used are in line with the vision and mission. New measures have been evaluated in relation to the vision of the Gothenburg Living Lab.

Challenge 2: Anticipating changes in visions and missions over time due to stakeholder involvement.

In September 2023 the Gothenburg LL arranged a full day meet-up called “MOVE21 Forum”. The purpose was twofold. The initial portion entailed giving an overview and orientation for new project team members, as well as delivering a progress report on the halfway point. The latter portion involved collective efforts aimed at ensuring goal attainment, aligning with a unified vision, and operating in an efficient and purposeful manner. Based on the discussions, changes in the manning of different test site working groups were made and suggestions on budget reallocations to the MOVE21 General Assembly were developed, to further optimise the collaborative work in the Gothenburg LL.

Challenge 3: Anticipating the feasibility of visions and missions given existing governance structures and decision-making about passenger mobility and freight transport in the city.

Prior to the MOVE21 Forum in Gothenburg, each partner prepared a presentation on their motivations and ambitions within MOVE21, which several partners used as a dynamic process to rejuvenate their involvement in the project, enhance teamwork, and keep everyone moving in the same direction. A vision and mission change can also be seen as an opportunity instead of a challenge. Changes are part of the process.

4.3.1.3 Financing strategy and business model

At the ICCP level, already in the Set-up Stage, the Gothenburg LL was working on establishing stable sources of resources to cover the operational costs for coordinating the partnership (at the ICCP level) after the lifetime of MOVE21. In the Maturing Stage, all financial strategies for the ICCP are still on the table. The TF doesn't see the business model where the participants should pay a yearly fee as a sustainable model, rather the city should allocate money for this collaboration.

Concerning the test site business models, the funding structure for each test site and measure is different, for example:

- Klippan/Jaegerdorff: measures are not about long-term funding, but about set-up costs.
- Nordstan: the goal is to develop a long-term sustainable business model that will be used in other sites and with other micro-mobility providers.
- Lindholmen: there is a business model where the financing of the measures is dependent on creating value for property owners. Through piloting of solutions, property owners have seen the value and are willing to fund for an extended period.

D6.5 listed two challenges concerning financing strategy and business model for all LLs in the Set-up Stage. For this deliverable, the TF in Gothenburg Living Lab reflected on these challenges:

Challenge 1: Developing and connecting realistic financing strategies and business models for both the ICCP and (local) interventions/concepts/solutions.

Being a financial contributor in a hub makes it a bit easier, but still not easy. Several providers are start-ups and they are not eager to take risks because of the current economic situation. The TF wants to develop solutions that these providers can profit from, but this development needs to take place in communication with different stakeholders. Furthermore, these solutions need to underline the shared vision and goals to shift to other modes of transportation.

Challenge 2: Engaging stakeholders in the Living Lab without offering financial incentives.

The City of Gothenburg's goal of becoming carbon neutral is a good argument for engagement by property owners who have a similar goal. The strategic direction the city has outlined towards climate-neutrality implies that there will be more stringent requirements, expectations, but also increased opportunities for businesses and organisations that are at the forefront of the transition. This provides compelling reasons and motivation to build commitment and interest in participating in this endeavour. Still, the formal engagement of stakeholders is a challenge.

4.3.1.4 Expand the partnership

In Gothenburg, there is a tradition of collaboration and innovation, both in formalised partnerships and projects and on a more informal level. The specific "brand" of the collaboration is not the primary question – where different actors can see mutual benefits from collaborating, collaboration is welcomed. This is both an opportunity and a challenge. New possible partners are positive to exploring collaborating opportunities, but there are challenges in forming new partnerships, signing agreements and establishing formal new relationships. While the partnership has expanded when it comes to

different stakeholders being directly or indirectly involved in different measures, no formal expansions have been made.

Important development that is not visible in the organisational model of the Gothenburg Living Lab is that bridges are being built with other groups within the Urban Environment Department, other parts of the City of Gothenburg, and other stakeholders in the local innovation ecosystem.

4.3.1.5 Operationalise business model(s)

If the organisation beyond the lifespan of this project needs to be a formalised organisational network or partnership, it would need support from the municipality. Such a formal structure might not be the most effective way to progress.

The Gothenburg Green City Zone (GGCZ) is a potential way of working beyond MOVE21. Several of its partners are part of MOVE21 and there are ongoing collaborations in testing different innovative solutions. Furthermore, with a few adjustments, GGCZ aligns with the MOVE21 vision and goals. To connect to GGCZ, the TF needs to show what MOVE21 is doing and highlight the similarities.

On the test site level, few business models have matured so far. The parcel lockers measure in Lindholmen is part of the overall Lindholmsleveransen concept, where all the goods for the area are being delivered to the local micro terminal, and distributed by an electric minitruck that delivers goods to and collects waste from several properties in Lindholmen. The business model for the lockers has been developed, tried and redefined, and a dedicated business model has been developed where the value for the property owner has been identified. On the basis of this, the property owner has committed to support with funding for Lindholmsleveransen to continue the parcel locker service for an extended period, with no cost for the tenants. The operation in general regarding the parcel lockers adds value to the Lindholmsleveransen concept with few costs connected to the development of the concept, and at the same time long-term sustainability is clear where property owners see the value of the concept and are willing to pay for this service.

For the development of micro-mobility services there is not a good business case (yet) and there is need for some subsidies. That will be an issue when MOVE21 ends.

The measure Micro mobility hotel in Nordstan involves stakeholders such as service providers, micro mobility companies, and citizens, and aims to develop a self-sustaining business model for upscaling and replication. Testing and evaluating the solutions is the next step, and the long-term benefits include a cleaner, safer, and more sustainable environment and a reduction in motorized transport.

4.3.1.6 Build a brand and enhance promotion

Instead of creating a new brand for the ICCP, the LL aims to build MOVE21 into existing partnerships. For the local society and industry, the MOVE21 brand is not important, but the results are. At the test site level, the branding activities (press events, open days, study visits, social media) have focused on informing, calling for action and engaging with society and industry on a local level.

4.3.1.7 Showcase results

There is a shared view among the actors of both the TF and the ICCP, and this has made communication easier. Communication and sharing results among these actors have matured over the last couple of months. The level of detail varies, for instance for competitive reasons not all details of a business model can be shared.

In the Maturing Stage first measures and concepts are implemented and therefore showcased. In the Gothenburg Living Lab the following innovations have been showcased in different test sites.

The Klippan/Jaegerdorff area is being used as a test area for the MOVE21 project to promote multimodal transport and reduce car use. Simultaneously sustainable mobility solutions are tested in

the Klippan test area, located between the city centre and the suburbs. Gothenburg is also developing a micro-mobility hotel consisting of three solutions to reduce motorised traffic and promote sustainable urban mobility in the Nordstan area. Finally, at the Lindholmen micro-terminal, a concept for B2B parcel boxes is being developed and evaluated to reduce motorised traffic, emissions and congestion, while providing a high level of service to customers and freight operators.

The MaaS project (Klippan/Jaegersdorff) is being evaluated for replication and upscaling, potentially providing a valuable template for other cities in Europe looking to reduce car usage and promote sustainable transport.

4.3.2 Interactions in the ICCP of Gothenburg

This section details the collected insights regarding interactions in the ICCP of Gothenburg. We will describe the following interactions and the development in the interactions:

- Task Force meetings
- Knowledge Brokerage with Work Packages 3, 4 and 5
- ICCP meetings
- Co-creation sessions on MOVE21 solutions

Task Force meetings

The Task Force has a periodic meeting structure: monthly, or more frequent based on needs. The agenda also varies based on pressing topics.

Knowledge Brokerage with Work Packages 3, 4 and 5

Since Deliverable 6.5, Knowledge Brokerage meetings have taken place between the TF and several of the WPs. The main topics were: the Advocates for WP3/4/5 (e.g. role); Digital Surveys & Roadmap set-up (WP3), Digital Twin and technology integration (WP5); explanation on the reflective monitoring process (WP6); reflection on the LL innovations by WP3/4/5 as part of the ex-ante monitoring and evaluation; governance and innovation through collaboration for each test site (WP4).

ICCP meetings

The Innovation Co-creation partnership meets quarterly. The agenda of the ICCP varies, depending on the most relevant issues.

Co-creation sessions on MOVE21 solutions

Co-creation sessions mainly took place on test site level. During autumn 2022, the first prioritized concepts and solutions were selected, and these were further developed in co-creation sessions, supported by experiences from supporting work packages, study visits and planned implementation. During the Maturing Stage different measures and pilots have been implemented, and, via an interactive process, further developed in co-creation with partners and other stakeholders.

4.3.3 Observations and insights regarding the ICCP of Gothenburg

Gothenburg's ICCP has currently more of an informal structure. Although the current organisational model will probably not be sustained, some sort of organisational model will exist. The city will research potential business models for a sustainable form of partnership. The Gothenburg Green City Zone (GGCZ) is being explored as the existing partnership to sustain the ICCP beyond the MOVE21 project. The test site leads, which organise the process in each test site location, are in place.

Some of the main challenges (and, if known, also their connected breakthroughs) of the Gothenburg TF were:

1. Organisational model: The partners in the organisational model have mostly maintained in the Maturing Stage. For new colleagues, the TF organised an onboarding meetup, the so-called MOVE21 Forum.

2. Vision mission: The vision and mission as defined during the Set-Up Stage has been useful in the process so far; however, it is not set in stone. The fact that it can change along the way is seen by the TF as an opportunity.
3. Financing strategy and business model: most providers are start-ups and they cannot take many risks. Within the context of the vision and goals of the project, the TF aims to develop solutions that these providers can profit from.
4. Expanding partnerships: The project's goal to becoming carbon neutral has shown to be a pivotal argument for engagement by property owners who have a similar goal.
5. Operationalise business models: what will be the best business models for a sustainable form of partnership (formal organisation or more open partnership)?
6. Branding: as businesses show more interest in the results of MOVE21 instead of its brand, the TF opts to build the ICCP into existing partnerships.
7. Showcasing: the TF has built a shared view among the actors, and this has made communication easier. Due to competitive reasons, not all details of a business model can be shared publicly.
8. Type of combined passengers and freight hubs: as the project does not aim to just connect these distinct mobility fields, it should also list the types of combined hubs that can be developed and what are the challenges these types bring.

4.3.4 Next steps in the ICCP of Gothenburg

The Gothenburg LL will investigate potential business models for a sustainable form of partnership. The collaboration with existing partnerships will be strengthened.

4.4 Hamburg

4.4.1 Description of the ICCP of Hamburg (Set-up Stage and Maturing Stage)

This chapter details the collected insights regarding the Innovation Co-Creation Partnership in Hamburg. It builds on the status in the Set-up Stage, and details information about the current Maturing Stage, looking towards sustaining the ICCP beyond the lifetime of the project.

4.4.1.1 Organisational model

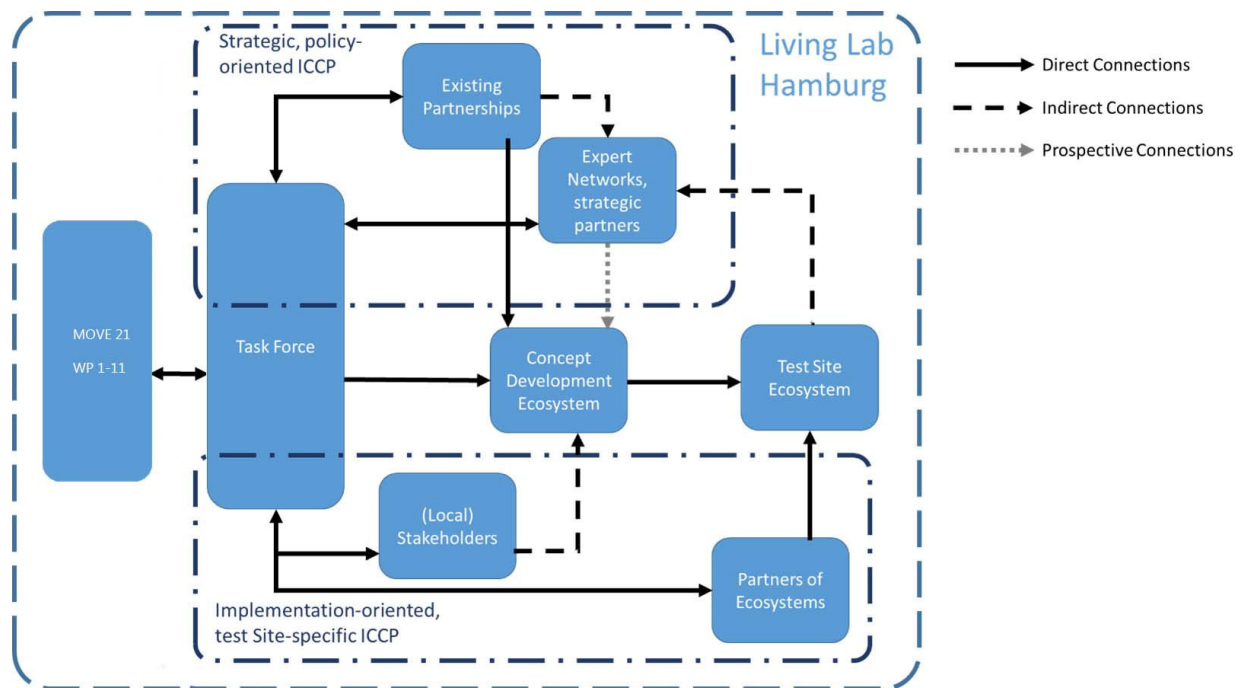


Figure 7: Organisational model of the Hamburg Living Lab

Figure 7 illustrates the organisational model of the Hamburg Living Lab (for a larger view, see Appendix C – Organisation model Hamburg Living Lab). The Hamburg LL has taken steps to connect to an existing partnership: the Logistic Initiative Hamburg (LIHH). Regarding the ICCP, in February 2023, the new working group under the umbrella of this Logistics Initiative was launched of which several MOVE21 partners are part of. This working group has the potential to sustain beyond the lifetime of MOVE21. The ICCP consists of the stakeholders in the Task Forces and additional stakeholder from the public sector (Ministry of Transport and Mobility Transition), public transport companies (Hochbahn, HVV and VHH), the private sector (parcel and logistic service providers), a public-private partnership (Logistics Initiative Hamburg (LIHH)) and knowledge institutes (Technical University Hamburg, HafenCity University, University for Applied Sciences Hamburg). As there are among the participants also representatives from other district offices and ministries, this working group allows the MOVE21 partners to connect among districts as well as facilitate exchange between different ministries.

The institutions represented in the TF have remained the same since the Set-up Stage. In some cases, personnel changes occurred. Involvement of citizens and/ or civil society representation continues to take place on test site level.

The TF has learned that there is not a one-way exchange, but mixture of interactions. Also due to different types of stakeholders (e.g., government levels). Communication and using the same language among actors, e.g., between governmental level or between policy and implementation, is a challenge.

D6.5 listed four challenges concerning the organisation model for all LLs in the Set-up Stage. For this deliverable, the TF in the Hamburg Living Lab reflected on these challenges:

Challenge 1: Connecting distinct fields of passenger mobility and freight transport in the Living Lab organisational model.

For the first pilot phase in test site Rissen, a solution has been found. However, for other test sites and the potential consolidation of the concept this challenge is still relevant. Concerning the concept of combined transport of people and goods, discussion and research is needed on, for example, insurance and liability issues.

Challenge 2: Implementing the Living Lab organisational model within existing network and organisational settings in the city, and inviting quadruple helix stakeholders.

The expert working group within the LIHH has started, representing the strategic, policy-oriented level. At the implementation-oriented level, the involvement of stakeholders depends on the concept for and setting of the individual test sites. This, for example, refers to the extent or choice of method for the involvement of civil society and/or citizens, or of representatives of specific fields.

Challenge 3: Establishing clear roles in the Living Lab organisation.

For current test sites and concepts, the core team responsible for each concept has been established. For upcoming upscaling or replication activities (such as the implementation of a hub in a suburban area) the need to define who contributes and in which roles still exists.

Challenge 4: Sustaining the Living Lab organisational model beyond MOVE21 project.

Actions on sustaining the LL organisational model beyond the lifetime of MOVE21 are in progress. The newly formed the working group within the LIHH has the potential for continuation, however the ability of this working group to take direct action or participate in future experimentation on the ground, as the LL does within the project, is as yet undetermined. Currently, the local MOVE21 members report to this working group about their steps within MOVE21, and if other actors are interested, there are opportunities to scale and join.

4.4.1.2 Vision and mission

As established in D6.5 the overall vision and mission of the Hamburg Living Lab is to contribute to the reduction of traffic and CO₂ emissions. This vision remains. In order to achieve this mission, the LL has defined four distinct but related goals, mostly directly informed by the MOVE21 Grant Agreement, but specified and contextualized in several ways. These four goals are:

- Pilot implementation of one or more multi-functional “neighbourhood hubs” with offers of services for person mobility and logistics, as well as social and cultural aspects;
- Testing of new integrated mobility and logistic offers, as well as new business models, under the roof of a hub and between hubs;
- Improvement of existing and creation of new forms of cooperation;
- Analysis and, if possible, piloting of inter-hub traffic and combined transport of people and freight.

Based on reflections of the TF on the goal, the concept of a combined transport of people and goods will be piloted in a suburban area of the District of Altona. The TF is furthermore considering a pilot of the concept of a multi-functional neighbourhood hub in a suburban area. While each test site has specific characteristics, and thus partly different objectives, they contribute to the overall objectives in a specific way. No test site specific vision and mission have been developed at this stage in the process. If developing site-specific visions and missions appears to be helpful for further stakeholder engagement or development of the test sites, the TF may still decide to pursue such an approach. Lastly, concerning the inter-hub traffic and the combined transport of people and freight, the TF has

learned that these are different aspects and are currently separately used. Piloting of inter-hub traffic could be difficult.

D6.5 listed three challenges concerning the vision and mission for all LLs in the Set-up Stage. For this deliverable, the TF in the Hamburg Living Lab reflected on these challenges:

Challenge 1: Connecting the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities.

Connecting the visions and ambitions of MOVE21 to local conditions is not perceived as a challenge as the project's overall objectives are in line with the city's strategies. However, challenges may occur in the implementation.

Challenge 2: Anticipating changes in visions and missions over time due to stakeholder involvement.

Formulating the visions and overall objectives has helped to create a common understanding and a point of reference for the TF. There have not been major changes to the formulated vision from conversation with other stakeholders, e.g., working group within LIHH.

Challenge 3: Anticipating the feasibility of visions and missions given existing governance structures and decision-making about passenger mobility and freight transport in the city.

Anticipating the feasibility of implementing visions and mission remains in some cases challenging as sometimes unexpected obstacles can occur.

4.4.1.3 Financing strategy and business model

In regard to the ICCP, as mentioned in D6.5 both the Logistics Initiative Hamburg and the Ministry of Economy and Innovation financially support the working group and, as things currently stand, they will continue to do so after the end of the MOVE21 project, thus sustaining the ICCP beyond the lifetime of MOVE21. Since several partners are already members of the initiative, the newly created working group will not require significant additional resources from those entities. The working group, part of LIHH will continue when the MOVE21 project ends. Since the Ministry of Economy and Innovation is co-leading the working group, all relevant actors, independent from member status of the LIHH, can fully take part.

D6.5 listed two challenges concerning financing strategy and business model for all LLs in the Set-up Stage. For this deliverable, the TF in the Hamburg Living Lab reflected on these challenges:

Challenge 1: Developing and connecting realistic financing strategies and business models for both the ICCP and (local) interventions/concepts/solutions.

Developing financing strategies and business models for local interventions and solutions remains a challenge (operational business models). Currently, the MOVE21 capacities (both personnel and budget) are used to initiate, steer and support the MOVE21 interventions. Steps are being taken to make the interventions and solutions independent from MOVE21 contributions.

The business model on the level of the ICCP has been set up in close cooperation with the LIHH and Ministry of Economy and Innovation and has materialised in a dedicated working group.

Challenge 2: Engaging stakeholders in the Living Lab without offering financial incentives.

The engagement of stakeholders depends on what the project has to offer at each test site and other factors. For every test site, the stakeholder's engagement depends on their wish to take part in innovation projects. So far, the stakeholders needed for participation in the Living Lab have been engaged successfully.

4.4.1.4 *Expand the partnership*

When new concepts are added, also additional stakeholders are involved. Furthermore, several levels of government are involved in the Hamburg Living Lab.

Regarding the private sector, there have been meetings with interested logistic users (Hermes, GLS, CityLog, Recyclehero) and following a meeting with hySolutions, several exchanges took place regarding the test site Kaltenkircher Platz. A meeting with the on-demand transport provider MOIA to discuss potential pilot implementation of combined transport of people and goods as well as a courier service has had a result that shipments might be transported by MOIA. Via site visits with the housing cooperation SAGA and additional colleagues from District Office Altona, a potential upscaling site in suburban area was assessed.

There have been also meetings with local stakeholders (representative of local shop owners, VHH (local transport company), "Bürgerverein Rissen" and additional stakeholders (e.g. local school, retirement home) on the topic of combined transport of people and goods. This has resulted in the development of the concept of a combined transport of people and goods and preparing the pilot implementation in Rissen.

4.4.1.5 *Operationalise business model(s)*

At the level of the ICCP, the LIHH working group has a viable business model and the financial support of the LIHH and Ministry of Economy allows partners who are not a member of the LIHH to participate.

At the level of the test sites, the goal is to refine the Hub concept for more permanent solutions and for further pilots in other Hamburg neighbourhoods. At the Holstenstrasse hub, the business model, specifically around role and responsibilities of the hub operator, as well as financial aspects such as costs for different users, is still being explored in the pilot process. The goal is to continue the test and build relationships with the current users in order to create a sustaining business model by the end of the project.

For the combined transport of people and goods, the overall functionality of the offer and its acceptance for users is being tested in the first pilot stage. Assessment of this stage will allow the involved stakeholders to consider the needs of a business model and, hopefully, test this in a second pilot stage in 2024.

4.4.1.6 *Build a brand and enhance promotion*

At the level of the ICCP, the LIHH has its own branding, promotion and network. This is used to attract the partners needed for the working group connected to the MOVE21 project.

At the test site level, branding activities (open house, partner newsletters, press events, local events, neighbourhood festival) have been used to inform citizens or local stakeholders. During several of these activities, there was also political involvement from the City of Hamburg.

4.4.1.7 *Showcase results*

At the level of the ICCP, the MOVE21 project and the primarily results of the test sites has been introduced in the LIHH working group. The results of the working group are shared by the LIHH website.

In the Maturing Stage first measures and concepts are implemented and therefore showcased. In the Hamburg Living Lab the following innovations have been showcased in different test sites.

The Living Lab Hamburg, has transformed a vacant building in Hamburg-Altona into a multifunctional Neighbourhood Hub for both commercial and public use – test site Holstenstrasse. The Hub is designed to reduce emissions and traffic by offering sustainable logistic solutions and to enhance social cohesion by offering different services for residents. On the logistics side, it includes space to reload packages and other goods, and the delivery companies use electric cargo bikes, so that deliveries and package

pick-ups are zero-emissions trips. Also, a “Social Service and Consultation Kiosk” offers residents private consultations and support services, financial advice, renters’ issues, and debt consultations during a regular consultation block. The kiosk also offers food and supplies for disadvantaged people. Fridays through Sundays, in cooperation with a local charity. The goal is to refine the Hub concept for more permanent solutions and for further pilots in other Hamburg neighbourhoods.

At the test site Harkortstraße an innovative engagement tool has been used as part of the participation process. The results of this participation are under assessment, and further steps will be taken regarding the development of solutions.

Furthermore, Living Lab Hamburg invites partners from other cities or other districts within Hamburg to exchange and learn. Especially, the hub in Holstenstraße serves as an example on how to combine logistics and social use and as such it sparks ideas on what other combinations can be useful for cities or neighbourhoods.

The TF has learned that stakeholders (in an informal way) are interested in how results were achieved. But also, in the framing of the project: how to find solutions, what can be added to existing structures or system, what is negative / positive added value, what have been the challenges, or what have been the new attempts or solutions.

4.4.2 Interactions in the ICCP of Hamburg

This section details the collected insights regarding interactions in the ICCP of Hamburg. We will describe the following interactions and the development in the interactions:

- Task Force meetings
- Knowledge Brokerage with Work Packages 3, 4 and 5
- ICCP meetings
- Co-creation sessions on MOVE21 solutions

Task Force meetings

The TF continues to meet on a weekly basis and, if needed, also more frequently. In these meetings, they agree on the direction and next steps, take decisions, and divide tasks.

Knowledge Brokerage with Work Packages 3, 4 and 5

Since Deliverable 6.5 Knowledge Brokerage meetings have taken place between the TF and several of the WPs. The main topics were: the Advocates for WP3/4/5 (e.g. role); Roadmap set-up (WP3), Digital Twin and technology integration (WP5); reflection on the concept combining people and goods with WPLs (WP3/4/5); reflection on the LL innovations by WP3/4/5 as part of the ex-ante monitoring and evaluation; governance and innovation through collaboration for each test site (WP4).

ICCP meetings

Within the existing LIHH, a working group was launched and the first meeting of the LIHH working group served as a kick-off meeting. In this meeting, topics for future meetings were suggested and collected. The second meeting had the topic of electrification of logistic fleets. The third meeting, held in October 2023, was about space requirements for last mile logistics. Participants were from the following areas: ministries, districts, public companies, logistics initiative, chamber of commerce and chamber of trade, university and logistics companies etc. A detailed list was acquired in the process of protocolling the meetings.

In addition, TF members continue to participate in the working group on digital mobility (Arbeitskreis Digitale Mobilität) led by New Mobility Solutions, depending on meeting topics.

Co-creation sessions on MOVE21 solutions

Co-creation of MOVE21 solutions takes place in the first instance within the TF. Depending on concept and test site, TF members engage with different kind of stakeholders in the co-creation, concept development and implementation. Involved actors include all the above-mentioned. Co-creation meetings take place depending on needs.

4.4.3 Observations and insights regarding the ICCP of Hamburg

The Hamburg ICCP is established. The project is represented in the new working group “Urban Logistics”, which is a part of the Logistics Initiative Hamburg (LIHH) and led by the Ministry of Economy and Innovation. By being part of this group, the collaboration in the Living Lab Hamburg can be sustained.

Some of the main challenges (and, if available, also their connected breakthroughs) of the Hamburg TF are:

1. Organisational model: Working with different kinds of stakeholders, each with their agenda, has sometimes been a challenge.
2. Vision mission: Implementing visions and mission remains in some cases challenging. For example, since there are economic difficulties of potential users or stakeholders of individual hubs. Or the planned concepts are still new, and this requires additional commitment to maintain the initial vision. Also the implementation periods for these new concepts tend to be longer, as there is a need for additional coordination and planning.
3. Financing strategy and business model: Although this remains a challenge, at the level of the ICCP there is currently a viable business model. At the level of the test sites, considerations regarding a financing strategy and business model for the concepts and test sites beyond MOVE21 are to be taken based on learnings from the implementation.
4. Expanding partnerships. Adding new concepts gives the opportunity to also involve new stakeholders.
5. Operationalise business models: Normally a membership of the Logistics Initiative Hamburg is required to be part of a working group. When the project ends, this needs to be looked at.
6. Branding: LIHH’s existing branding, promotion and network is supportive, as it has been very useful to get the partners needed for the working group connected to the MOVE21 project.
7. Showcasing: By showcasing the results of the test sites in the LIHH working group, the lessons learned have been presented beyond the project members.

4.4.4 Next steps in the ICCP of Hamburg

The working group Urban Logistics will continue to be held about three times per year. In these meetings there will be regular updates given on the experiences and lessons learned so the legacy of the project is shared with a wider group. For future meetings members of the Hamburg Task Force will have the possibility to shape agenda points, contribute at the meetings and take part. The TF will also organise deep dive sessions, which will investigate sustaining the ICCP beyond the MOVE21 project.

4.5 Conclusions, insights and next steps

Here we present some preliminary conclusions, insights and findings that will be documented for all three Living Labs (distinguishing overlap and differences). Also, when relevant some next steps/necessary actions going forward will be detailed – zooming in on working from the Maturing Stage towards the Stabilising Stage.

4.5.1 Conclusions, findings and insights

The reflective monitoring of the ICCP’s has focused on the Set-up and Maturing Stage. We have looked into the following topics: organisational model, vision and mission, financing strategy and business model, expansion of the partnership, operationalising the business model(s), building a brand and enhancing promotion and showcasing results.

We will highlight insights and challenges across the Living Labs for each topic.

Table 2: Overview of insights and challenges for the Innovation Co-Creation Partnerships in the Living Lab Cities

Topic	Insights and challenges
Organisational model	- Insights are: - In all Living Labs the Organisational Model has been established, the Task Force and sub-ecosystems of concepts/test sites play an important role on an operational level. - The Living Labs have a different approach regarding the way the Living Lab and ICCP are set up, the way a connection has or has not been made to an existing partnership and the way roles and responsibilities are defined. - The organisation model is kept flexible regarding the development of concepts and test sites. - Challenges are: - Connecting distinct fields of passenger mobility and freight transport remains a challenge. But also, what lies between these two fields, and have a relation to both areas. - Communication among partners and finding a way of working among partners and how to sustain an element of exploration in the way of working. - Culture between organisations differs, this asks for openness and transparency in cooperation. - Sustaining the ICCP is still a challenge for Oslo and Gothenburg, where Hamburg has already taken steps and works on the potential for continuation.
Vision and mission	- An insight is that for all the Living Labs, the vision and mission as developed during the Set-up Stage allows enough flexibility throughout the process, also detailing it in a more tailor-made way towards potential new partners in the ICCP. - Challenges are: - Living up to the implementation of the vision and mission remains in some cases challenging as sometimes unexpected obstacles can occur. - However, changes are not only seen as challenges, but also as opportunities, being aware that this is part of the innovation process.
Financing strategy and business model	- Insights are: - The Living Labs of Oslo and Gothenburg are still in the development of the financing strategy and business model on the level of the ICCP. For Hamburg, a working group as part of the long-term sustaining of the ICCP has been implemented. This comes with a connected financing strategy and business model. - All Living Labs have set up financing strategies and business models on the level of concepts and measures. - Challenges are: - For each concept and measure, setting up a viable business model is a challenge. - Looking for the benefits of all partners (ICCP and test site or concept level) is an important way to make the connection, including the focus on joint goals.

Topic	Insights and challenges
Expansion of the partnership	- Insights are: - All Living Labs are working on expanding the partnership, this is often related to the development of (new) concepts / test sites. - The focus is not only on 'external stakeholders' but also on 'internal stakeholders' of the Living Lab cities, i.e., other departments and government levels. - Challenges are: - Expansion of the partnership focusses on cooperation and especially on building trust. - Connecting to partners is relatively easy, but setting up a concrete cooperation (i.e., project) is more difficult. The common goal of carbon neutrality can offer opportunities to work on this collaboration. - Where cooperation is set up, the phase of potential upscaling is also on the table, which also asks for additional interaction with all stakeholders; thinking beyond the lifetime of the project.
Operationalizing the business model(s)	- Insights are: - Operationalizing the business model relates to both the level of the ICCP as well as the level of the concepts/test sites/measures. - In the Living Labs the focus has been more on the business model on the concept/test site/measure level. - A challenge is: - All Living Labs see the need to take a next step regarding the business model on the level of the ICCP, what scenarios could be thought of, and how these translate to the context of the Living Labs.
Building a brand and enhancing promotion	- Insights are: - When concepts and measures are implemented on test site locations, the MOVE21 project is referenced. - Living Lab cities are however also thinking about branding beyond the MOVE21 project, if this is a brand in itself, or if a new brand could also be relevant to think about. - Even brands connected to individual partners are of importance – and even support involvement of other stakeholders, and then it is also relevant to link that to a broader cooperation. Making agreements about this beforehand is key. - Challenges are: - What works best, building a MOVE21 brand or enhance existing brands (e.g., supported by MOVE21)? It is important to get a good view on this.
Showcasing results	- Insights are: - In all the Living Lab cities, concepts and measures have been and are being showcased in test sites. - Both on local and EU-level, communication on and dissemination of these results have taken place. - Close cooperation with local partners on communication has matured over time in the Living Labs. - Challenges are: - How to deal with openness and transparency on the details of a concept/measure, especially linked to business sensitive topics such as parts of business or revenue models.

4.5.2 Next steps in ICCP reflective monitoring

For the Innovation Co-Creation Partnerships we are now entering the Stabilising Stage. In this stage it is key to detail how the partnership will last beyond the lifetime of the project. At this point, Hamburg Living Lab is formalizing the last steps of this partnership (within the Logistics Initiative Hamburg). For Oslo and Gothenburg this will need additional scoping and discussions on how to capture the commitment from partners involved in the ICCP, defining ownership and the role of the ICCPs, to ensure longevity.

This stage focuses on the following activities:

- Operational services and joint facilities are developed;
- Dedicated business models for mobility and logistics service innovations are developed and deployed;
- Upscaling and follow-up open innovation projects are developed (local, national, or international remit).

The operational services and joint facilities link closely to the concepts/measures that are developed in the Living Labs. A view needs to be given on if and how this will be sustained beyond the lifetime of the project. Some of the implementations on specific locations are temporary, whereas others have more long-term focus.

The dedicated business models on the ICCP and on test site or concept level that have been developed need further testing and maturing. It is important to capture the lessons learned, also on the challenges that occur regarding the different business models.

Regarding upscaling, from the start the Living Labs have been aware of the importance of upscaling measures, and have incorporated this into their thinking. However, first a successful implementation is needed, before upscaling can take place. Furthermore, it is important to actively set up activities to work on the upscaling, including thinking of needed space, type of hub and possible limitations.

Regarding links to other WP's we see the link here with WP3, 4 and 5 that support the knowledge brokerage process. Exchange has been taking place for the Maturing Stage. Now, as we are entering the Stabilising Stage, the scope of support of WP3, 4 and 5 could change. As a follow-up step, we will evaluate the knowledge brokerage process, involving the LL Project managers and WP3, 4, 5 and 6. As WP3, 4 and 5 also have deliverables relating to upscaling, it will be important to understand how the knowledge brokerage can support this process of upscaling in the Living Labs.

Furthermore, WP4 and WP6 will collaborate on the Innovation Co-Creation Partnerships, focusing on needed steps for public-private cooperation. This is related to both the governance structures as well as the needed business model(s) to sustain the ICCPs beyond the lifetime of the project. This knowledge and lessons learned will feed into D6.8 *Practitioners' guide for setting up self-sustaining innovation co-creation partnerships*.

5 Interim Report: Innovation Capacity

In this chapter, the interim results regarding the monitoring activities for Innovation Capacity are shared for the three Living Lab cities of Oslo, Gothenburg and Hamburg. The chapter will first detail the applied methodologies, tasks and efforts thus far for the activities related to the Innovation Capacity. Then, for each Living Lab, insights on the five elements of Innovation Capacity (Leadership, Organisation, Knowledge Management, Network and Learning) will be detailed. Finally, some preliminary conclusions, insights and findings will be documented (for all three Living Labs), as well as detailing next steps and necessary actions going forward.

5.1 Monitoring Innovation Capacity

This first section will elaborate on the methodologies, tasks and efforts that have been applied with regards to Innovation Capacity. As established in Appendix 4B in D6.1 (p.45) *“The measuring of Innovation Capacity is done in three different ways: a baseline interview, a self-assessment tool and an exit interview”* to continuously learn about the current state of innovation capacity in the cities. As part of this process the baseline for innovation capacity in the Living Lab cities has been established in the period between May and September 2023. These efforts will be further detailed below.

As mentioned in Chapter 1, the results from the Reflective Monitoring in WP6 can be used to further detail the results of the quantitative monitoring in WP8. More directly there is a link to result indicators 4.9 and 4.10 for Innovation Capacity as reported in D8.1 *Impact Analysis Framework for the Living Labs* and D8.3 *Ex-ante implementation of the Impact Analysis Framework for the Living Labs*.

5.1.1 Definition and operationalisation of Innovation Capacity

Innovation Capacity refers to the extent to which public organisations are able to innovate and develop new approaches to complex societal challenges (Meijer, 2019). Lewis et al. (2018) define innovation capacity as the set of conditions that support innovation or provide a supportive infrastructure; it is the set of factors that enable or actively encourage innovation. Therefore, WP6 claims that developing a cities' innovation capacity is a critical precondition to be able to develop, stimulate and embed new ways of working in the Living Lab cities. As introduced in Appendix 6 in D6.1 (p.53), MOVE21 uses a categorisation that contains five elements of innovation capacity, being:

- **Leadership**
Transformational, connective leadership plays an important role in the realisation and institutionalisation of innovations. Important aspects are: having an innovation vision and strategy, inspiring, motivating and supporting (administrative) leaders, and political support.
- **Organisation**
An innovative organisational climate is important for developing innovation capacity. Public organisations are often risk averse, while they should mobilize sufficient resources for innovation and experimentation. Furthermore, strong internal communication horizontally and vertically will increase the innovation capacity.
- **Knowledge management**
Municipalities with a free flow of knowledge and data are better able to increase their innovation capacity. They should be sharing knowledge across organisational boundaries and have structures in place to salvage the knowledge within the organisation.
- **Network**
The presence of strong internal and external networks has a positive influence on innovation capacity. This includes cooperation with various actors outside the public sector and to gain trust within those networks.
- **Learning**
Innovation cannot take place without learning. Organisations should strive to become a learning environment by continuously experimenting and embedding new ways of working into existing processes. This takes place in a continuous process of action and reflection.

Based on further literature research, these categories have been operationalised into a semi-structured interview protocol for the baseline interview and an innovation capacity survey. Which can be found in Appendix D – Semi-structured interview protocols Innovation Capacity and Appendix E – Innovation capacity survey (self-assessment tool).

5.1.2 Monitoring activities for Innovation Capacity

In the beginning of the MOVE21 project a set of monitoring activities and methods with regards to innovation capacity were defined in D6.1 *MOVE21 Reflective Monitoring Guide*. Table 3 below provides an overview of these activities and methods. This interim report focuses on establishing the present state of the innovation capacity in the Living Lab cities. Several activities have taken place and more are planned by conducting the innovation capacity survey and semi-structured interviews in the Living Lab cities. The result of this analysis will be discussed later in this chapter and is validated during discussions with the project managers of the Living Lab cities. The aim is to use this result as input for themes, questions or discussions that can be the focus of the dedicated training sessions which will be planned within the context of MOVE21.

Table 3: Proposed monitoring methodologies for Innovation Capacity (extracted from D6.1)

Activity	Monitoring Detailing and Methodology
Present state of innovation capacity (starting point)	Monitoring through a self-assessment tool and semi-structured interviews. Assessing municipal leadership, organisation, knowledge management, network and learning related to innovation. And establishing a baseline of the innovation capacity in the Living Lab cities.
Progress of Innovation	Monitoring the progress with regards to innovation capacity in the Living Lab cities, using the self-assessment tool.
Dedicated trainings and sessions relevant for Innovation Capacity in the city	Knowledge brokerage sessions focussing on the main challenges in the Living Lab cities in relation to Innovation Capacity.

Input has been gathered from bilateral meetings with project managers, TF-meetings with WP6, and observations by local monitors. Though innovation capacity is not a central topic in any of these meetings, there are topics related to innovation capacity that have been mentioned in exchange with stakeholders that are relevant to consider for WP6.

A workshop on Reflective Monitoring topics, including innovation capacity, was organised in M17 (September 2022). WP6 organised a three-hour workshop on Reflective Monitoring to discuss the findings and prioritize next steps for the topics of the ICCP and innovation capacity with the Living Labs local partners as well as available Work Package Leaders and one External Advisory Board member. Moreover, also in M17 (September 2022) during the Oslo Consortium Meeting a breakout session was hosted on policy coherence and innovation capacity. The session resulted in three main priorities and insights for the topic of innovation capacity:

- Political will and brave decision making are key;
- Innovation needs a trigger – to unleash the innovation capacity; what could these triggers be?
- More appetite for risk and failure in public organisations.

Besides this workshop that consisted of a broader audience, the two main monitoring activities in the period between May and September of 2023 were the innovation capacity survey and a series of semi-structured interviews with people working in the Living Lab cities. The goal of this series of interviews was to set the baseline of the innovation capacity in the Living Lab cities. In total, TNO conducted 14 semi-structured interviews of 1,5 hours via Microsoft Teams with city representatives from the Living Lab cities on both operational and strategic level. An overview of the interviewees can be found in Table 4. During these interviews, the interview protocol in Appendix D – Semi-structured interview protocols Innovation Capacity was used as guidance. The results of this monitoring activity will feed into the ex-durante and ex-post monitoring done in WP8 and provides additional insight into the organisational barriers that cities run into when implementing innovative measures and new ways of working.

Table 4: Overview of interviewees in the Living Lab cities for Innovation Capacity

City	Function
Hamburg	EU project coordinator
Hamburg	Logistics department
Hamburg	Head of Section Mobility
Hamburg	Head of Logistics department
Hamburg	Director-general of the Office to the State
Gothenburg	Project manager
Gothenburg	Project manager
Gothenburg	Unit manager
Gothenburg	Innovation leader
Gothenburg	Innovation strategist
Oslo	Project coordinator
Oslo	Project manager
Oslo	Senior advisor
Oslo	Assistant director general

More specifically, five representatives from the cities of Gothenburg and Hamburg and four representatives from the City of Oslo were interviewed. These respondents all work in the city administrations and have varying roles within their cities' organisation: some work in operational departments, others in high-level management; some were actively involved in MOVE21 and others not. Therefore, the results of these interviews are not specifically related to the MOVE21 project, but outline the personal reflections of the interview respondents and the context that they work in. From this, we extrapolate the general attitude and approach towards innovation in the three municipalities and provide interesting lessons, which can be taken into account as the project continues.

In advance of the interviews, the respondents were asked to fill out the innovation capacity survey as a pre-interview self-assessment. This survey was set up by TNO in Survlyzer and the list of statements can be found in Appendix E – Innovation capacity survey (self-assessment tool). The aim of the survey was to introduce the respondents with the concept of innovation capacity prior to the interview and to get a first impression of how they see the innovation capacity of their cities. The results of the survey were also used as input for the interviews and respondents had the opportunity to explain and elaborate on their responses.

In a similar way to Meijer (2019), a number of statements for each element of innovation capacity were presented in the survey. Respondents used a Likert scale to indicate to what extent they think that the statements represent the status quo of the innovation capacity in their city. The range of this Likert scale was 1-5, 1 being completely disagree and 5 being completely agree (see Table 5). In the analysis of the survey results the average score per element of innovation capacity was calculated for each Living Lab city, providing the cities with an overview of their current innovation capacity and indicating areas of improvement. It cannot be stated that a certain score is per definition good or bad.

However, the higher the average score, the better the respondents think the element of innovation capacity is established in a city. The results are presented in a spider diagram per city in Figure 8, Figure 9 and Figure 10 below. The results are self-assessments of the respondents and merely give an impression of how they see the state of the innovation capacity in their organisations at a specific moment in time. Therefore, they might not always match the results of the in-depth conversations which were necessary to understand the wider context and challenges that the cities are dealing with. The compiled results are presented per city in the following paragraphs.

Table 5: Innovation Capacity Survey scores

Score	Value
1	Completely disagree
2	Disagree
3	Neutral
4	Agree
5	Completely agree

5.2 Oslo

This chapter details the collected insights regarding Innovation Capacity in the City of Oslo.

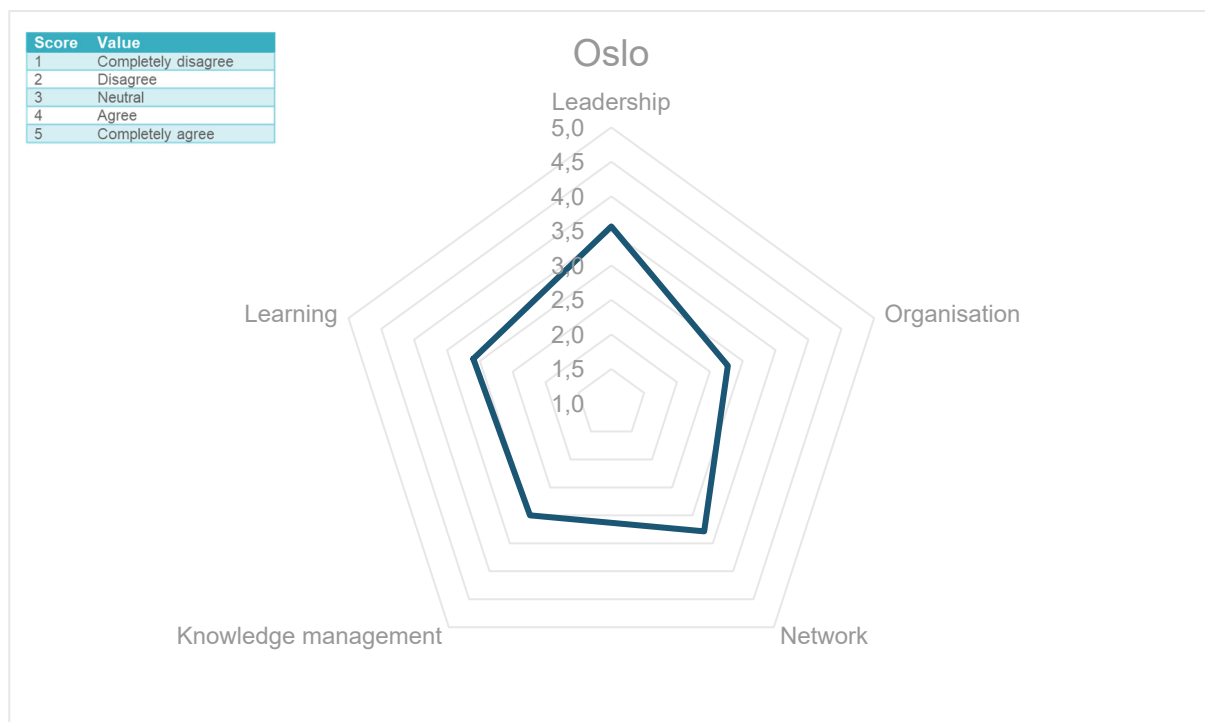


Figure 8: Results of the Innovation Capacity survey in Oslo

5.2.1 Leadership

The respondents in Oslo score the leadership in their city with a 3,6. The respondents argue that the City of Oslo has no specific vision on innovation, but has a generic and high-level strategy for digitalization, innovation and cooperation. Oslo's main goal is to become a zero-emission city, with the Climate Budget as one of the main tools to achieve that. While the outcome goal is clear, it remains unclear what the role of innovation in that process needs to be as the municipality is lacking a structured process for innovation and alignment of strategic approaches on different levels in order to give direction as to how to achieve the cities' goals. There is a general awareness among the respondents that achieving the cities' ambitious goals demands a lot of innovation, but they mainly refer to technological innovation and not necessarily to governance innovation or changes in the way of working.

Respondents express a need for an overarching framework that creates a facilitating environment for innovation in which people feel backing from their leaders, freedom and flexibility to experiment.

According to the respondents, the vision to become a zero-emission city is one of the main priorities on the political agenda. By being uncompromising, politicians are challenging the administration to do things differently, steering them towards highly innovative and risky measures. While these measures might result in political popularity, respondents add that these measures can also be symbolic. Overall, they say, there is limited willingness to develop a broader range of innovative practices and actionable measures that can be implemented by the operational departments of the municipality. Due to the inadequate shared knowledge base between the political and operational level there is a lack of shared priorities, understanding and interest.

As opposed to political leaders, administrative leaders are more pragmatic and must balance what is possible in the limited capacity in terms of time, resources and planning. Administrative leaders do not necessarily have – or can free up – the time and resources to stimulate others to work on innovation (e.g., doing innovative projects, investing in learning, piloting and experimenting) as innovation does not seem to be a priority. Moreover, it is a challenge for administrative leaders to find room to explore innovation based on the limited interaction with political leaders. Although the organisation wants to promote a culture in which everybody is allowed to explore, in reality the focus tends to remain on the core tasks of the organisation and being accountable, predictable and transparent.

5.2.2 Organisation

The respondents of the City of Oslo score their organisation at 2,8. The City of Oslo has a parliamentary governance system. The City Government is the executive body and reports to the City Council, which is the highest decision-making body of the city. The set-up of the organisation is built around eight departments with a specific thematic expertise that are responsible for policymaking and budgeting. Under these departments there are agencies that are responsible for the execution of these policies. On the one hand this set-up makes people more confident in their work, but on the other hand the strong focus on thematical core tasks results in little time for cross-contamination and creativity. The latter constitutes one of the main challenges for the City of Oslo, which is a very large organisation with strong silos that is difficult to grasp and overlook. This structure contrasts with what working on complex problems requires, such as working across disciplines and in an integrated way. Moreover, constant organisational changes complicate the innovation processes because there is little continuity in the way of working and the people to work with.

With regards to internal communication, respondents state that there is an open dialogue between the departments and the agencies. The roles are clear, the communication is regular and frequent, and is transparent. The main focus of this conversation is top-down, but bottom-up feedback and suggestions from the agencies are welcomed. Also, continuous dialogue is stimulated horizontally across departments and agencies. However, the siloed nature of the organisation is a large barrier in this exchange, resulting in a strong dependency on informal connections to be able to find the right people. Smaller departments and agencies seem to promote better innovation preconditions because the connections and exchanges are closer and more regular.

A big challenge for the City of Oslo is finding and keeping relevant personnel. The city is dealing with a lack of qualified personnel and specifically the agencies offer a relatively low salary compared to other levels of government and the private sector. This results in a challenge to keep ambitious and innovation-minded staff within the organisation. Furthermore, there is a general lack of understanding about innovation and the needed capabilities for innovation in the organisation. The respondents indicate that across the organisation most innovation competencies are available, however as people work in silos, their competencies do not get connected, nor are they provided with the right opportunities for further development.

The current 'business-as-usual' culture (bureaucracy) within the organisation is very dominant and difficult to change, shape, or challenge. This accounts for both operational level employees all the way

up to higher leadership. The respondents argue that a large group of employees value the current working culture, while some employees feel stuck in this culture. As the organisational culture is not prone to accepting risks and failure, HR policies and incentives do not stimulate being different and working in a different way. This risk-averse attitude is based on the fear towards spending public money wrongly. This fear hampers the development of a culture for innovation, experimentation and failure. There is no existing framework in the City of Oslo that provides the ‘sandbox²’ that would set the preconditions of working in a more innovative way. People that do this are vulnerable and rare, and risk not being valued. Working in an innovative way is therefore dependent upon individuals that have the intrinsic motivation, prioritization and personality traits that allow them to do this and are not discouraged by organisational barriers.

5.2.3 Knowledge Management

Oslo’s respondents score its knowledge management with a 3,0. To begin, there is no dedicated knowledge management system in place in the City of Oslo. Projects mostly end with a report and the knowledge gained from a project (e.g., best practices and lessons learned) is not shared in or translated to the organisation. Currently, knowledge sharing occurs on an informal basis, which makes it hugely dependent on the willingness of individuals for sharing and making their knowledge accessible. And, if knowledge sharing takes place on a broader scale, it is mainly through the presentation of a success story with little time for actual exchange and discussions about failures, learnings and work in progress. The respondents express a desire for an accessible knowledge management system and they add that it should be made a dedicated task to be responsible for knowledge management within the organisation.

Training and development of employees is mostly done on an individual basis and discussed once a year during the annual performance review. Making it based on individual performance and desires also means that there is no real strategic knowledge development from the organisation itself in terms of building skills or capabilities. Especially related to the cities’ climate ambitions, the respondents notice an increasing urgency for innovation in the public sector. According to the respondents, skills and capabilities for innovation are partially trainable and partially based on personality traits and experience. Moreover, respondents mention a challenge with regards to retaining knowledge in the organisation when employees leave the organisation, taking a lot of tacit knowledge with them. This brain drain effect is increased by hiring people on project basis.

5.2.4 Network

When it comes to network, the respondents of the City of Oslo rate their city with a 3,3. As an explanation for this score, respondents say that networking is not actively stimulated by the organisation. Networking mainly happens in projects with internal and external actors. There have been discussions on a strategic level with regards to which networks to join and why, relating to the topics the municipality wants to be visible on. However, building relations and networking is not explicitly part of the job description of most civil servants. Moreover, there is little exchange between different networks that municipal employees are in and limited updates between colleagues in different networks. Respondents see the added value of creating an innovation network in the city to find like-minded people across the city and to create a space where experiences and knowledge can be discussed and exchanged. Currently this occurs in an informal, ad-hoc manner.

² A ‘sandbox’ is an isolated testing environment

Constant dialogue with external stakeholders is seen as important to keep everyone aware of what is happening in the city. A lot of private parties want to work with the City of Oslo, but it is difficult for the municipality to set-up long-term collaborations due to procurement rules. While civil servants see the added value of cooperation, they often have to be cautious in their approach, which puts a brake on innovation. The City of Oslo is trying to tackle this by setting up Innovation Districts and networks such as Business for Climate which stimulate long-term conversations on strategic topics with external stakeholders. However, it remains difficult to connect these initiatives to various agencies across the organisation. Collaboration with academia, knowledge institutes and other public parties is seen as a lot less risky and occurs regularly. With regards to citizen engagement, this is mostly about informing citizens about what is happening in their city.

5.2.5 Learning

Oslo's respondents score the element of learning with a 3,1. In the City of Oslo, there is no standardized learning process of formulating learning objectives, monitoring, reflection and evaluation in place. On an individual level, Oslo has a 10-factor system in place which is used for self-reflection and personal development. However, respondents mention that their organisation's main mode of learning is learning by doing, and that it is rather difficult to get an overview of what is happening in the municipality and to shape a collective, systematic learning process. Yet, also on a project basis it is not a regular practice to formulate learning objectives. Moreover, it is not common to create a feedback loop in which identified lessons are embedded and taken forward to prevent people from reinventing the wheel.

Furthermore, respondents add that stimulating learning would require leadership that facilitates and prioritizes the learning process and very good communication across departments and agencies. When prioritizing learning in the organisation, the administrative leaders of departments should also be able to allocate time and budget focused on learning. Time and budget are pivotal to build in flexibility in the work and to give people space to experiment and explore – and learn from their process. This calls for an overarching innovation framework that stimulates a change in working culture in which people do not jump from project to project and in which there is a willingness to fail, monitor and evaluate.

Additionally, the City of Oslo has difficulty with extending or scaling pilots beyond the project lifetime. Reasons for this being that (1) the people working on the project move to another project or leave the organisation, and (2) there is no long-term plan for financing and maintaining the pilot project. Pilots are approached as temporary interventions and they are not accounted for after the project ends.

5.3 Gothenburg

This chapter details the collected insights regarding Innovation Capacity in the City of Gothenburg.

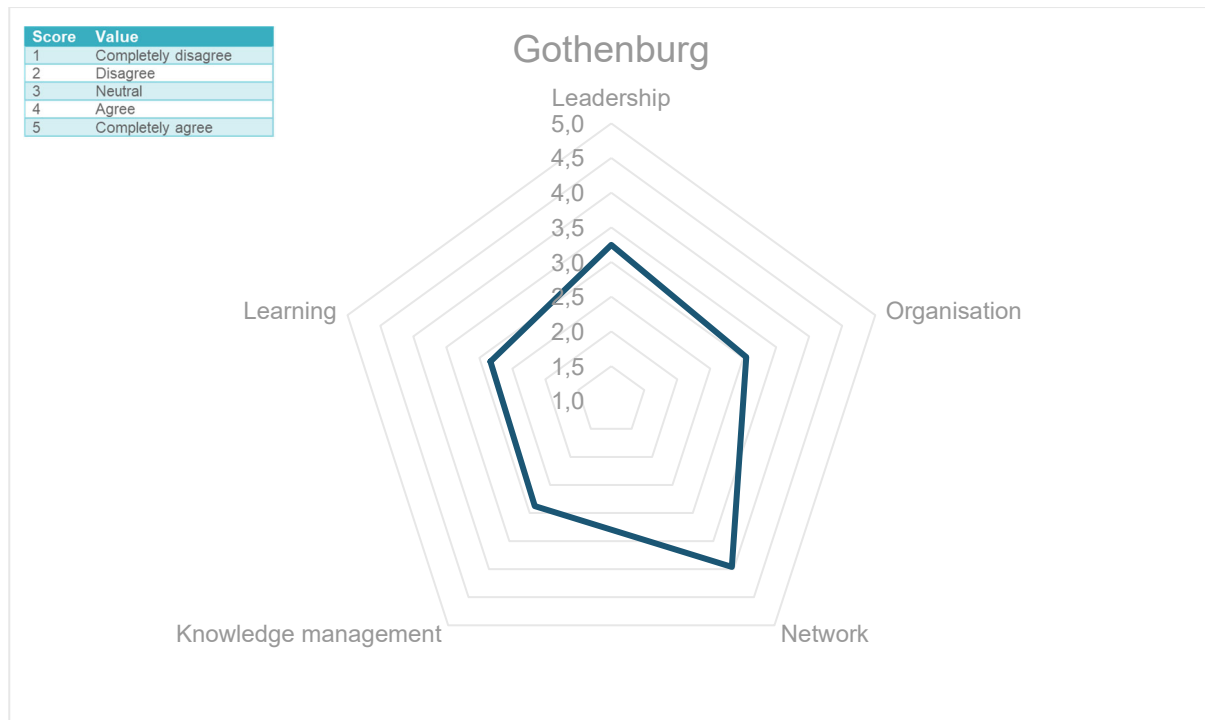


Figure 9: Results of the Innovation Capacity survey in Gothenburg

5.3.1 Leadership

The respondents from the City of Gothenburg score the leadership in their city with a 3,3. An important note is that the City of Gothenburg has been going through a reorganisation in the past year and some of the change processes are still ongoing. The respondents highlighted that there is a need for leadership that actively encourages and enables innovation in the City of Gothenburg. Leaders should see innovation not only as technological improvement, but they should also empower innovative ways of working. This requires time and mandate to ensure that innovation becomes an integral part of the work and not a process on the side. According to the respondents, leadership in this sense means finding ways to give more flexibility in executing strategic of political plans and visions, and providing room for civil servants to work according to their own expertise and capabilities.

With regards to the cities vision on innovation, it was mentioned that the City of Gothenburg has some specific outcome-oriented goals such as becoming a climate neutral city. This goal is clearly defined and coherent across strategic and policy documents, however – respondents note – steering on how to achieve this goal is missing. The city organisation has difficulty operationalising such goals into actionable measures. Uncertainty about mandate, ownership and backing in the organisation were brought up as causes for this difficulty. Respondents express a need for further strategy and alignment on organisational level – how the different departments should work together; what the role of each department is in achieving the city's goals; and how to implement that in the daily work.

The respondents argue that there is a general political support for innovation. However, the respondents point out that the impact and alignment of political decisions is not always clear for civil servants. Moreover, politicians often lack knowledge on what political ambitions specifically entail in terms of resources and how these ambitions should be translated towards the operational departments. While the formal decision-making processes are clear, these are often rather generic and untransparent. Which can – in some cases – result in lower commitment and decisiveness with regards to the implementation of innovative measures and projects. Also, managers in the administration tend to see

innovation as something extra that must happen on the side. While managers are, to a certain extent, also bound to their job and task descriptions, their individual characteristics are highly influential on the freedom and support employees are offered to work in an innovative way. The boundaries of what is possible can be contested based on personal context and traits. Therefore, people with intrinsic motivation to change the work culture feel a need to take on the role of activists within their own organisation, trying to convince others to work on innovative processes.

5.3.2 Organisation

With regards to the organisational aspects of innovation capacity, the result of the survey assessment is a 3,0. As mentioned before, the City of Gothenburg recently went through a reorganisation. The purpose of the reorganisation is to create a more integrated urban development process in planning, implementation and administration of the city. As part of this reorganisation, the five formal departmental committees were discontinued and replaced by four new committees, namely: the city planning committee, the land development committee, the urban environment committee and the city property committee. These committees are the political representation in the City of Gothenburg and have a corresponding department which is responsible for the strategic, tactical and operational execution in the city.

The aim is to create a structured network within and among these four departments in order to stimulate both formal and informal exchange across all departments and levels. This aim stems from a desire for more formal routes to find the right people for certain topics. Currently, a lot of the internal communication – especially horizontally between the operational departments – is dependent on informal contacts. Concerning vertical communication there are more formalized procedures in place where issues, concerns and questions can be discussed. Respondents say that it feels as if management is responsive to employee feedback; however, processes are long and it takes a while to close feedback loops.

Since the reorganisation, every department has an innovation leader. The innovation leader is responsible to encourage and enable innovation in their department. These four innovation leaders together form a secretariat in which they discuss what is happening in their departments and create synergies and cross-departmental collaborations. Moreover, they connect to other cities to learn from what they are doing. This is seen as an interesting development as there is now an explicit function with mandate and resources to stimulate innovation. Additionally, there is an active and ongoing competence development process in the City of Gothenburg that encourages their staff to take courses, engage in networks, participate in projects and conferences in order to stimulate the development of innovative capabilities.

While the above sounds positive, the respondents add that these developments go rather slow in public organisations and that there is still a lot of work to do in order to change the mindset and work culture with regards to innovation in the City of Gothenburg. This change starts with understanding that current ways of working do not suffice when dealing with ambitious and complex goals such as becoming climate neutral. There needs to be a general awareness that innovation should be an integral part of the core tasks of the municipal organisation, and that time and resources should be prioritized towards innovative processes. A huge challenge in relation to the aforementioned need is that this is not the mindset of a number of civil servants. Additionally, the organisation suffers from a fear of failure; the use of public money requires a very specific plan and there is no room for mistakes. This results in a low tolerance for risk. Among the innovative frontrunners that go the extra mile to find like-minded people to set up cross-departmental and cross-organisational collaborations, there are few with a formal role and the mandate to do so. Innovative processes are thus dependent on intrinsic motivation and lobbying skills, require trust building, and take a lot of time. Strategic human resource management or planning could aid the development of an organisation that is able to work in an innovative way for example by balancing the composition of departments based on diversity, skills, competences, personal traits.

5.3.3 Knowledge Management

The respondents in the City of Gothenburg score their city's knowledge management with a 2,9. The respondents mention that the City of Gothenburg is missing a structured knowledge management process. There is a digital system in place in which documents are stored, but this system is not easily accessible or clearly structured. It is seen as very difficult to create a shared knowledge base, but the municipality is working on this by planning to introduce a new system called 'your knowledge bank'. This system should provide an overview of all the projects that departments in the city are working on and should provide easier access to project information, people and documents. Currently only new innovation projects have a procedure to take in existing knowledge in their Set-up Stage, which is still seen as a challenge.

In addition, there is a variety of forums and meetings in which civil servants have the opportunity to share experiences and knowledge. In general, sharing and transfer of this knowledge in meetings is seen as part of the workplace culture. However, during these meetings it is often the case that people present their success stories which is, according to the respondents, often not very helpful because most project insights are worded in a politically correct way in reports or presented in slides that don't necessarily tell a) the whole story and b) the relevant information of a challenging situation. On the operational level this can be mitigated by planning informal one-on-one meetings to discuss further details.

Moreover, it was mentioned that the City of Gothenburg could have a more strategic approach towards knowledge management by attracting or developing knowledge that is connected to the city's goals and functions and making knowledge management an integral part of the work. For example, identifying lessons learned should become a standard in all projects and programmes. Knowledge should also be made more accessible – not only by a new digital system but also by better communication – providing more transparency on what other parts of the organisation are working on, how to connect to each other, being able to ask simple questions and talk about failures.

5.3.4 Network

In terms of network, the respondents of the City of Gothenburg score their city with a 4,0. Accordingly, respondents mention that there is a strong spirit and aptitude for collaboration in the City of Gothenburg. There are many formal and informal collaborations with a variety of external parties such as industry, private companies, academia and research institutions. Additionally, there are collaborations with other levels of government and government-owned parties. However, on the downside there is no formal overview and feedback from all the networks that the municipality actively engages in. This makes it a huge challenge to broadly spread the knowledge and experience from these networks in the organisation.

Both informal as well as formal networks are considered valuable within the municipality. There are several networks with internal and external party representation that meet in set frequencies. These network meetings are seen as a good place to get in contact with external parties – especially to contact the private sector. Due to procurement rules, there is always the risk of touching upon private interests when communicating with private companies on an individual basis. On the one hand this can be seen as a challenge with regards to innovation, but on the other hand procurement rules are also seen as valuable to sustain equal treatment, transparency and integrity. Furthermore, it is a challenge for the municipality to make flexible (innovative) procurements and build on long-term relations with private companies who might not be willing to publicly share their innovations during the tender stage. In order to tackle this, the purchasing and procurement administration is working on multiple assignments to work towards innovative and sustainable procurements.

Informal networks often consist of people who have been working in the municipality for a long time. Specifically informal connections with regards to working on innovations are important to speed up internal processes; learning from other peoples' experiences can be very beneficial. Respondents add that informal networks create the space to not only focus on project results but also on what working together in a certain way brings in terms of new ideas and opportunities.

5.3.5 Learning

The respondents of the City of Gothenburg score learning with a 2,8. Respondents explain that an overarching learning process is still lacking within their organisation. In general, people do not have – or make – (sufficient) time to extract and implement lessons learned from previous projects. There are also few processes in place currently to integrate learnings that have been identified. Formally, a process has been adopted regarding the finalization of innovation and development projects. This process prescribes an exit meeting with project participants, compilation of written communication materials and a project evaluation. The transfer of these lessons to new projects in practice is tied to individuals with those experiences: they have to collect the knowledge and spread it to their colleagues. Only frequently occurring issues or challenges are put on the agenda and escalated to higher management.

One of the challenges that respondents mention is that business-as-usual and innovation are separated from each other within the organisation. On the one hand that is a good thing: creating the opportunity to try new things and fail (with dedicated innovation budget), but on the other hand it also makes it difficult to anchor innovations and lessons in the organisation. It is found to be specifically challenging to grasp lessons learned from projects in other parts of the organisation. Moreover, it is found to be difficult to verbalize and write down lessons learned in a way that it is transferable to another context or situation. To improve abovementioned issues, respondents suggest to create bridges and interfaces between the different departments and between business-as-usual and innovation people.

5.4 Hamburg

This chapter details the collected insights regarding Innovation Capacity in the City of Hamburg.

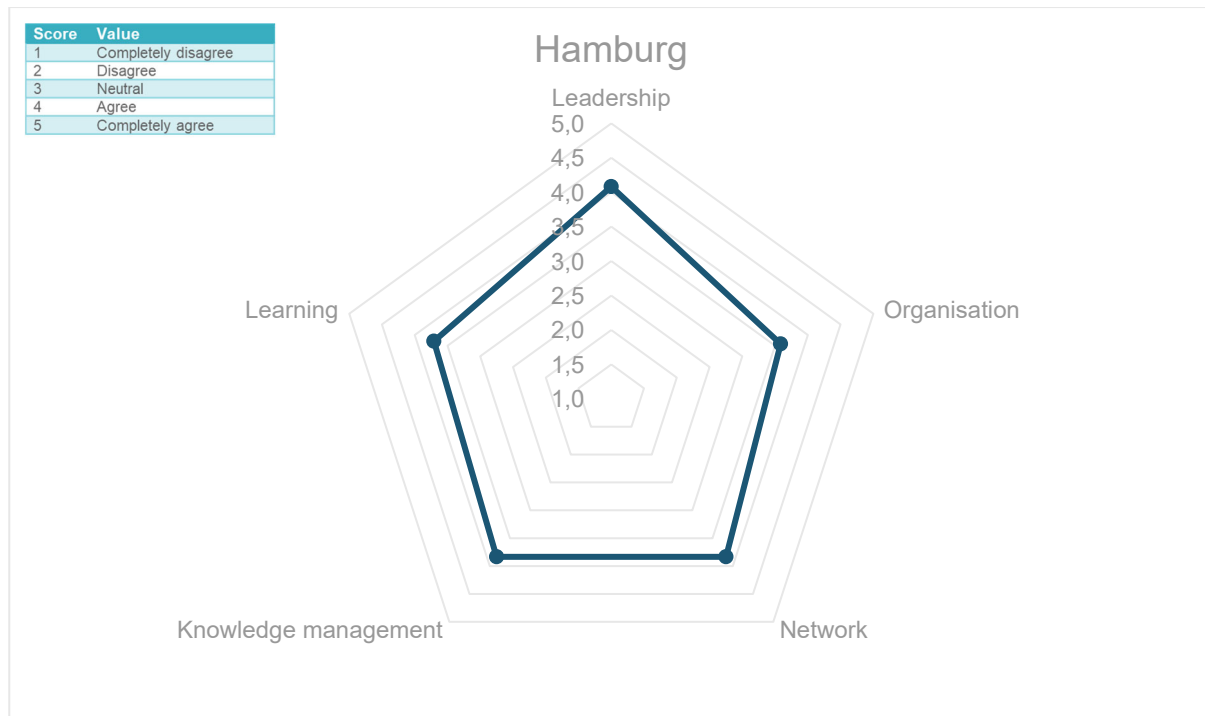


Figure 10: Results of the Innovation Capacity survey in Hamburg

5.4.1 Leadership

The respondents in the City of Hamburg score their cities' leadership with a 4,1. The Free and Hanseatic City of Hamburg is both a municipality and a city-state within the Federal Republic of Germany. There is no distinction between these administrative levels, meaning that city-wide government is organised on the state level through the Hamburg State Parliament (*Bürgerschaft* in German). Executive power of the Hamburg government lies with the Senate or State Cabinet, which includes the Senators (called Ministers elsewhere) of the different ministries (*Behörden*) and is chaired by the First Mayor. The senate is responsible for Hamburg's law enforcement, the city's day-to-day management and its representation to the German Federal Government and other countries. The seven districts (*Bezirke*) of Hamburg each have their own local Parliament (*Bezirksversammlung*) who preside over questions of local importance to the districts. Elections take place parallel to elections to the Hamburg State Parliament.

On a political level (in the Senate) there is a vision for stimulating innovation through support to research institutions, knowledge management, implementing transformations in the city, trying to create conditions to make innovation possible and exchange with other cities on innovation. The Ministry of Economy and Innovation (BWI) develops strategies on how to deal with logistics. In this Ministry, innovation is a priority and part of the core task. Respondents articulate that there is a clear vision on how to save emissions and improve traffic safety and thereby the quality of life in Hamburg.

However, translating this vision towards operations is considered a challenge. On the level of administrative leadership, a lot of factors (i.e. various interests, domains and operations) come together, which is challenging to manage. There is no blueprint for innovation processes in place, and managers and directors need to deal with a variety of interests, from the Senate, Ministry and District office, while also balancing resources and tasks. Respondents experience support for innovation in the form of financial support and political backing and freedom to try new approaches and pilot solutions within the existing framework and objectives. It has been mentioned that the main drivers for innovation are people working in the operational departments of the administration, and that leaders try to inspire them to keep developing ideas in order to stimulate innovation.

5.4.2 Organisation

The respondents in the City of Hamburg score their city's organisation with a 3,6. The organisational culture consists of a classical administrative structure in which there is a vertical exchange between District, Ministry and the Senate on a regular basis. Each level has its own political decision-making structure. While these structures are clear and transparent, respondents mention that it is not easy to work on innovative processes in these structures. In general, it can be said that the organisational culture wants to allow for trying out innovative solutions. However, there is a strong belief that public organisations should not take too many risks as they want to provide stability. When spending public money, the justification should be very clear and very well argued. Moreover, the funds are allocated from the upper level of the City of Hamburg to concrete measures related to the core tasks of a department and does not provide a specific budget for open innovation processes. Therefore, participation in EU projects is strongly encouraged to create more room for innovation processes in the operational departments. EU projects are seen as a vehicle to work on change.

Furthermore, respondents notice a shift in public administration in which a new generation of civil servants is changing the traditional habits of public administration. There are increasingly more colleagues that are open to innovation and are eager to stimulate this. Young people are open to new perspectives such as European collaborations and they are eager to do more than only regular operations.

With regards to horizontal exchange, innovation-minded employees of the city can generally find each other to develop (ideas on) innovations, but respondents say that cross-district and cross-ministry cooperation could still be improved as the different organisational parts mainly work in silos. A challenge with regards to the integration of silos is that there is a clear separation between expertise. Each silo has its own important topics, and people in different organisational parts do not want to step on each other's toes. Within and between the Districts, Ministries and the Senate there are working groups on specific topics; however, outside of these, it can be rather difficult to find the right person to talk to with regards to specific questions. There is some regular exchange, but contact is mainly dependent on informal, personal connections.

5.4.3 Knowledge Management

When it comes to knowledge management, the respondents score the City of Hamburg with a 3,8. In the City of Hamburg, civil servants are actively encouraged to keep on developing themselves and continuously gain knowledge, through trainings, coaching, mentorship and exchange with external parties and other cities. In addition, respondents mention online platforms for sharing reports which all employees can access. However, respondents admit that it remains unclear whether these platforms are effectively used for getting information. The main barrier being that you need to know in advance what you are looking for and actively need to look it up. There is no general overview of projects that the City of Hamburg is working on. Regular exchange often only occurs on the scale of team meetings and not with other teams or departments. Respondents express the desire to improve the cities' knowledge management system and increase knowledge sharing amongst colleagues.

Besides knowledge sharing, respondents mention that knowledge retention is also a big challenge in their organisation. In general, it is difficult to attract and retain personnel in the public sector, but it is even more difficult to find replacement on time when someone leaves and to organise a sufficient handover. A lot of the knowledge in the organisation is tacit knowledge which remains in the heads of the employees and is not broadly embedded. Therefore, respondents say it is vital to not only rely on personal exchange but also to think of systematic ways for documentation and broad dissemination of knowledge. Currently, the Senate is piloting a systematic off-boarding process in which people who retire handover their knowledge and expertise in lectures to their colleagues.

5.4.4 Network

With regards to network, the respondents of the City of Hamburg score a 3,8. As a Hanseatic city, Hamburg has a long tradition of close collaboration with businesses. Politics and the business sector are closely linked and this cooperation is well established. Regarding mobility innovation, the municipality actively engages and involves external entities such as (other) governments, companies, knowledge institutes, citizens, and citizen representation groups in the development of new ideas. Close collaboration with external parties is seen as important, but there is always a balance that should be kept in mind in relation to procurement rules and not giving any one stakeholder an advantage. Bypassing procurement rules can only occur through application of grants or by providing some experimental room to advance a specific innovation or pilot.

The City of Hamburg is active in a variety of networks with external parties. Specifically in relation to MOVE21, they are in close contact with the Logistics-Initiative Hamburg which is a public-private partnership with about 500 companies. Moreover, the Ministry of Economy and Innovation initiated the digital hub logistics, a space and network for logistics start-ups. On a district level, there is also specific attention to establish connections with social initiatives in order to promote participation and inclusion.

Concerning internal networks in the organisations, there are some informal networks that are not familiar to all employees. Time and experience are important to get acquainted and establish connections internally. Respondents state that the culture of networking could be improved by connecting with colleagues in a way that is not only driven by the content of the work but more focused on how to create synergies and increase impact together. This requires a culture of openness and building of relationships and trust. Transparency is often mentioned as key to be able to build trust.

5.4.5 Learning

The respondents of the City of Hamburg score a 3,7 on learning. Typically, there are no learning objectives formulated for innovation projects or experiments because it is not a priority and there is no time to make them explicit and document them. This often results in a process of learning by doing. In regular activities, the organisational culture does not leave a lot of room to learn because it is expected of the organisation to perform well. As a result, people do not feel supported to be transparent about their failures and share and learn from their mistakes. In extraordinary activities, such as EU-funded innovation projects there is more room to make mistakes and learn, and a bigger effort is made to close the learning cycle. However, it remains challenging to transfer personal learnings and document them in a systematic way.

In addition, respondents from the City of Hamburg identify a challenge to go from experimentation to embedding innovations in regular activities. Previous pilots have had a temporary nature and allowed for freedom and flexibility. When taking these pilots to regular operations and activities, it became difficult when the funding for the pilot project stopped and there was no business case to continue. Furthermore, pilots sometimes have exemptions from certain regulatory or legal requirements for a specific period. Going beyond that period is not anticipated and therefore causes challenges in terms of budget and regulations. Bringing projects like these forward takes a lot of personal drive and continuity in the team. Respondents suggest that a strategy for normalising (i.e. transferring pilots to regular operations) should be developed from the beginning of the pilot project.

5.5 Conclusions, insights and next steps

In this part of the chapter, preliminary conclusions, insights and findings for all three Living Labs (distinguishing overlap and differences) are discussed. Finally, next steps for future work are presented.

5.5.1 Conclusions, findings and insights

5.5.1.1 Leadership

In all cities, the absence of an overarching vision for innovation is mentioned. However, there are high-level visions available for specific goals such as becoming a climate neutral city. These visions sometimes include innovation to achieve high-level goals. In terms of operationalising visions and high-level goals, it is often mentioned that implementing visions is seen as difficult because the strategic, tactical, and operational levels within organisations are not well aligned. Although the end goal is clear, there is often no clear path laid out for achieving those goals.

An explanation that is often given for the lack of innovation capacity within organisations is that stimulating innovation is not seen as a core task of public organisations. Resources are often allocated for other tasks. Therefore, few resources are available for organising innovation projects and setting up innovation structures. Furthermore, it is often unclear who is formally responsible for innovation within organisations. Innovation is often carried out as a side job by those civil servants that are intrinsically motivated to change things.

From a leadership perspective, political support for innovation is often perceived as symbolic. Although politicians insist on the importance of innovation, there are often no resources or strategies available for innovation. Furthermore, while managers are, to a certain extent, also bound by their job and task descriptions, their individual characteristics are highly influential on the freedom and support employees' experience to work in an innovative way.

5.5.1.2 Organisation

Municipalities are still organised in strong silos. As a result, it is often perceived as incredibly challenging to work in an integrated way. There are often structures in place for communication within departments. However, the communication is perceived as top-down information-sharing, as bottom-up feedback is often not discussed. Communication between departments is organised through informal networks and strongly depends on personal contacts between civil servants.

When it comes to workforce, attracting and retaining skilled personnel is challenging for municipalities. In particular, attracting young people is difficult because a competitive salary is not offered by public organisations. Furthermore, it is mentioned that a lot of people in public organisations are stuck in habitual or conventional practices and are not open to innovative ideas and new ways of working. This way of working does not inspire young talent to stay.

Moreover, it is mentioned that there is a fear of failure embedded within public organisations. There is a strong belief that public organisations should not take too many risks and that they should provide stability. Accountability, stability, and transparency are still core values in public organisations and it is difficult to deviate from these. Furthermore, when spending public money, the goal should be clear and very well argued. There is an assumption that there is no room for failure when it comes to spending public money. Finally, civil servants have the feeling that they should protect their political leaders as they are held publicly accountable for mistakes. As a result, people do not mention making mistakes and learning from mistakes is not explicitly encouraged.

5.5.1.3 Knowledge management

With regards to knowledge management, one of the common challenges among the three city organisations is the lack of a structured knowledge management system. In all cities there is some kind of IT system in place that serves as a repository, however, respondents indicate that it is unclear whether these are effectively used for getting information. It was often mentioned that projects mostly end with a report that gets lost in the system and is never read. Unmet prerequisites to be able to effectively use such a system are an overview of past and present projects and to know how to find specific pieces of information.

It is found to be difficult to translate contextual knowledge gained from a project to the wider organisation. In general, knowledge sharing occurs on an informal basis, highly dependent on the willingness of individuals to share and make their knowledge accessible. Moreover, this knowledge sharing is often rather superficial and mainly consists of success stories at the end of projects. Respondents experience little room to share obstacles and lessons learned and to vigorously discuss ongoing projects.

In addition, respondents state that there is an issue with retaining knowledge within their organisations. A lot of the knowledge in the organisation is tacit knowledge that resides in the minds of the employees. Yet, there is a high turnover of people within the organisations; people only stay for a couple of years, retire, or they are hired temporarily on a project basis taking a lot of knowledge that is not documented or embedded with them.

5.5.1.4 Network

In general, all three municipalities closely collaborate with external parties such as other governments, academia, knowledge institutes and companies. Especially, collaborations with academia and other knowledge institutes are seen as a win-win. When it comes to citizens, it remains challenging to actively participate and co-create. The level of citizen engagement often does not go beyond informing. However, the main challenge lies in the collaboration with private companies. Although private companies are very willing to cooperate and the municipalities want to build relationships based on trust in order to work with innovations and continuously keep experimenting and improving, procurement rules make it very challenging for public organisations to set-up flexible procurements and to build long term collaborations with private parties.

Moreover, it was frequently mentioned by respondents that networking is not an activity that is actively stimulated by their organisations. Networking depends on individual characteristics and informal contacts. Additionally, there are no formal overviews from all the networks that the municipalities actively engage in, and the collected information is not disseminated in the organisation. Therefore, the added value of networks does not go beyond the individual level.

5.5.1.5 Learning

All three city organisations are missing a standardised learning process for formulating learning objectives, monitoring, reflection, and evaluation. Respondents explain that an overarching learning process is still lacking within their organisations. In general, people work on a project-basis and do not have – or make – the time to extract and implement lessons learned from previous projects. To stimulate this, learning should become part of the organisational culture. Municipalities should allocate time and budget towards learning processes and prioritize organisational learning.

Another component that is interfering with organisational learning is that business-as-usual and innovation are separated from each other within the organisations. There is often a separate group or a couple of individuals that work on innovation on the side. While it is positive that they have opportunity to try new things, it makes it even more difficult to anchor innovations and lessons learned in the organisation.

Furthermore, all cities find it difficult to take pilots beyond their project lifetime. Upscaling and maintaining pilots are often hampered by their temporary nature. Oftentimes, there is no long-term plan for financing and maintaining implemented measures after the project. This insight is specifically relevant in the case of the MOVE21 project since the Living Labs are still in their pilot phase. Therefore, it is important to recognize these pitfalls, extract lessons and think of ways of how to prevent them from occurring.

5.5.2 Next steps in Innovation Capacity reflective monitoring

During the interviews, city representatives did not only address challenges but also mentioned opportunities and best practices for dealing with these challenges. These opportunities and best practices are presented in Table 6 below, alongside the element they provide solutions for and possible activities that stimulate learning from the opportunities and best practices in order to improve a city's innovation capacity.

These activities are suggestions by WP6 and should be discussed in collaboration with various project partners across connected Work Packages. In the following months the Living Lab cities are asked to reflect on the assessment of their innovation capacity as analysed in this chapter. Depending on the most pressing needs, WP6 will support the Living Lab cities with a tailor-made follow-up on how to move forward and increase their innovation capacity. This will most likely result in three separate sessions with the local ecosystems in which a combination of context-specific topics can be addressed. The aim of these sessions is to inspire and encourage a broad group within the city organisations to work on increasing their innovation capacity. The timeline for these activities is Q1 and Q2 of 2024.

Table 6: Opportunities and activities to increase the Innovation Capacity in Living Lab cities

Element	Opportunities / Best Practices	Activities	Links to other WPs
Overall	Development of Survey into Self-Assessment Tool that Living Lab and Replicator cities can use to monitor their Innovation Capacity in a wider context but also beyond the MOVE21 project	Overarching Knowledge Exchange Webinar between Living Labs and Replicator cities on Innovation Capacity	WP7
Leadership	No specific opportunities identified.	Knowledge brokerage sessions among strategic, tactical and operational levels within the organisations to discuss what is necessary in terms of commitment, time and resources in order to develop innovation visions and to translate those visions into actionable measures.	WP4
Organisation	Appointing an innovation leader in each department who has the mandate to encourage and enable innovation (see Gothenburg).	Peer learning on the best practices from Gothenburg and how to initiate similar processes in the other cities.	WP7
Knowledge management	Developing a knowledge management system similar to <i>your knowledge bank</i> in Gothenburg. Introducing an <i>off-boarding initiative</i> such as in Hamburg.	Peer learning session on the main challenges with regards to sharing, embedding and retaining knowledge. Sharing on what cities are	WP7 & WP10

Element	Opportunities / Best Practices	Activities	Links to other WPs
Network	Establishing structural networks to stimulate constant dialogue with external stakeholders without preferring certain market parties (e.g., digital hubs logistics Hamburg). This allows for a better overview of what the market has to offer with little risk regarding procurement rules.	implementing and what barriers they come across.	
		Peer learning from experiences and best practices among Living Lab cities. Thinking of ways on how to perpetuate the established networks beyond MOVE21.	WP7
	Stimulating informal networks to discuss not only project content but also to discuss new ways of working and what that can bring in terms of new ideas and opportunities.	Knowledge brokerage on flexible procurements.	WP4
Learning	No specific opportunities identified.	Knowledge brokerage on strategic networking, how to sustain networks and create impactful partnerships and synergies.	WP4
		Peer learning session on organisational learning to discuss how to prevent the Living Labs from falling into pitfalls and to work on the development of sustainable, long-term business cases for Living Lab measures.	WP7

Finally, there are a couple of reflective monitoring activities in relation to Innovation Capacity that are still remaining. The first one being the broader deployment of the Innovation Capacity Survey (self-assessment) among additional respondents in the Living Lab cities but also in the Replicator cities. Secondly, WP6 will organise a peer-learning event among all cities to discuss insights and share learnings on their reflections and respective local sessions. Thirdly, another round of semi-structured interviews will be deployed among additional respondents in Q2 of 2024. The aim of the monitoring is to provide insight in how the innovation capacity in the cities can and will improve over the course of the MOVE21 project and to think of ways how to embed these learnings within the municipal organisations in order to sustain the changes in approach beyond the project lifetime.

6 Interim Report: Policy Coherence

In this chapter the interim results regarding the monitoring activities for policy coherence are shared for the three Living Lab cities of Oslo, Gothenburg and Hamburg. The chapter first details the applied methodologies, tasks and efforts thus far for the activities related to policy coherence. Then, for each Living Lab, insights are detailed. Finally, some preliminary overall conclusions, insights and findings are documented for all three Living Labs combined, as well as detailing next steps and necessary actions going forward.

6.1 Monitoring policy coherence

This first section will elaborate on the methodologies, tasks and efforts that have been applied with regards to policy coherence monitoring, based on D6.1 *MOVE21 Reflective Monitoring Guide*.

6.1.1 Policy coherence background

In this section, first, the concept of policy coherence is described. Second, the scope for the MOVE21 project and relevance for the project are explained.

6.1.1.1 Concept of policy coherence

The concept of policy coherence, rooted in the field of sustainable development, has gained increasing prominence on the global stage through e.g., the initiatives and commitments of the United Nations. The United Nations recognizes policy coherence as a critical element in the pursuit of sustainable development, encapsulated in Sustainable Development Goal (SDG) Target 17.14. This target underscores the imperative of enhancing ‘Policy Coherence for Sustainable Development’ (PCSD): a multifaceted approach aimed at ensuring that governmental policies align harmoniously with one another, with the overarching objective of achieving sustainable development outcomes that span economic, social, and environmental dimensions.

In essence, PCSD challenges nations to transcend siloed policymaking by crafting policies that not only support one another but also work synergistically to realize sustainable development goals. The complexity of this task arises from the need to holistically address diverse developmental challenges while navigating the delicate balance between policies. A critical aspect emphasized by the United Nations is the avoidance of adverse impacts that multi-level policies in one sector may inflict on other sectors.

Policy coherence is a multifaceted and challenging issue. Achieving policy coherence necessitates the establishment of robust institutional arrangements that facilitate coordination and integration across different sectors and policy levels. It also demands qualitative, quantitative and analytical skills to identify and assess synergies and trade-offs between various policy options. Furthermore, reliable and up-to-date data is fundamental for crafting evidence-based policies that contribute effectively to sustainable development objectives.

In this light, two crucial dimensions of policy coherence are explained: cross-sectoral (horizontal) coherence and cross-level (vertical) coherence.

First, cross-sectoral coherence, also known as horizontal coherence, addresses the harmonisation of policies across diverse sectors operating at the same policy level, typically within a given administrative unit like a city or a nation. It entails the integration of policies from different domains, such as urban mobility and urban planning, to ensure their alignment and synergy. For instance, achieving cross-sectoral coherence involves bridging the gap between a city’s mobility policies and its urban planning policies to create a seamless urban environment.

Second, cross-level coherence, often referred to as vertical coherence, addresses the alignment of policies that operate at distinct levels of governance, such as policies formulated at the EU, national, regional and local levels. It requires the coordination and synchronization of policies originating from

different tiers of government to prevent contradictions or incongruities. For example, establishing cross-level coherence entails ensuring that a nation's overarching mobility policy is congruent with the specific mobility policies enacted by individual municipalities within that nation, or the relation between TEN-T corridor and urban nodes as addressed in the MOVE21 Scan-Med Observatory under auspices of WP10 (also see D10.4 *Scan-Med Observatory Framework Plan*).

In essence, these two dimensions of policy coherence serve as mechanisms to reconcile policies either within a particular policy sphere or across varying governance levels. By doing so, they facilitate the achievement of collective policy objectives while minimizing conflicts and inefficiencies that may arise from disparate policy agendas.

Yet, policy coherence extends beyond harmonizing policies between sectors and levels of governance: it also delves into the alignment between high-level strategic plans and the operational tactics necessary for their execution. In some instances, a 'tactical gap' emerges, signifying a misalignment between the grand vision laid out in strategic plans and the practical, day-to-day actions carried out to implement them. This misalignment can result from various factors, such as resource or coordination constraints, unforeseen challenges or shifting priorities. The existence of a tactical gap poses a risk to the effectiveness of policy implementation. Even with well-crafted strategic plans, if operational tactics do not adequately support them, the intended outcomes may remain unfulfilled. Consequently, successful policy coherence necessitates not only the alignment of policies but also the seamless integration of strategic objectives with operational execution, ensuring that the overarching vision translates into tangible results.

6.1.1.2 Scope and relevance of policy coherence monitoring for MOVE21 project

The central tenet of monitoring policy coherence within the framework of the three MOVE21 cities is the examination of (in)coherences between two key facets: (a) the strategic ambitions and objectives set at the strategic policy level, written down in strategic policy plans, and (b) the tangible, on-site implementation of (MOVE21) measures and solutions. In this monitoring process, due consideration is given to both dimensions of policy coherence, namely, cross-sectoral (horizontal) coherence and cross-level (vertical) coherence. In this way, the policy coherence monitoring endeavours to gain a comprehensive understanding of how strategic vision aligns with practical tactics. This approach not only offers a deeper insight into potential tactical gaps but also ensures that policy endeavours resonate cohesively across different sectors and governance levels (e.g. EU, national, regional, local – connecting from TEN-T corridor level to urban nodes). Ultimately, MOVE21's commitment to monitoring policy coherence reflects its commitment to harmonizing ambition with action, propelling cities towards more sustainable and integrated urban mobility systems.

In order to make the monitoring exercise in this deliverable more concrete, in consultation with the three MOVE21 cities, one use case of policy (in)coherence has been chosen per city. This is detailed further in the next section.

6.1.2 Monitoring activities for policy coherence

In the beginning of the MOVE21 project (in D6.1) a set of monitoring activities and methods with regards to policy coherence was defined – see Table 7.

Table 7: Proposed monitoring methodologies for Policy Coherence (extracted from D6.1)

Activity	Monitoring Detailing and Methodology
Formulation of coordinated or integrated policy responses in the cities	Awareness of, and agreement about, specific framing of policy relevant issues amongst policy makers. Agenda setting: which integrated issues are dealt with? By whom? How? Which integrated policies/plans are proposed?

Activity	Monitoring Detailing and Methodology
Implementation of coordinated or integrated policy responses in cities	Which integrated policies are implemented? When? How? By whom? Who were involved?
Removal of obstructive local policies and regulations	What obstructive policies/regulations for the innovations have been identified? How has this been done? What proposals have been formulated to remove obstructive policies? What obstructive policies have been removed? When? Have obstructive policies/regulations been identified that don't fall under the mandate of the city? How were these dealt with?
Uptake of policies in the relevant city plans and strategies (e.g., SUMP and SULPs)	Assessment of the current (municipal) ambitions, visions, strategies relevant to MOVE21. Analysis of current SUMP and SULPs, SECAPs of the city – which are relevant to MOVE21? Revision dates? Y3: interviews with people involved on how the project influenced the plans and vice versa. Y4: assessment of how insights from MOVE21 impacted the ambitions, plans, strategies.

In the remainder of this section is indicated what activities and methods have been used over time in order to monitor policy coherence in light of D6.6. The results of this monitoring activity will feed into the monitoring done in WP8 and more specifically for result indicator 4.8 *Number of strategic plans* that will be reformulated based on the results of MOVE21 in the three Living Labs.

6.1.2.1 Webinar on policy coherence (January 2023)

On 20 January 2023, TNO organised a one-hour webinar for MOVE21 stakeholders that centred around the topic of policy coherence. During this webinar, participants were introduced to the concept of policy coherence, which involves making sure that different policies work well together to achieve common goals. They also learned about the two dimensions of policy coherence: cross-sectoral (horizontal) coherence, which is about aligning policies from different areas like mobility and urban planning, and cross-level (vertical) coherence, which focuses on making sure that policies at different government levels, such as city and national levels, fit together seamlessly.

After this introduction, the participants were divided into breakout discussion groups, and each of the three MOVE21 cities was represented in these groups:

- Breakout group–1 - cross-sectoral coherence: aligning mobility and urban planning
 - This group delved into the challenge of making sure that mobility policies, which involve how people and goods move in the city, align smoothly with urban planning policies. They discussed how to make sure that these two important aspects of city development work together effectively.
- Breakout group–2 - cross-sectoral coherence: aligning city-level strategic plans
 - This group focused on aligning different strategic plans within a city. They explored how to ensure that plans from different parts of the city government, such as mobility, urban planning, and environmental planning, all support the same vision and work together seamlessly.
- Breakout group–3 - cross-level coherence: aligning EU, national, and local policies
 - This group tackled the complex task of aligning policies at different levels of government, from the EU down to the local city level. Specifically, they discussed how to make sure that policies related to the TEN-T corridor (a major European transportation network) and urban nodes fit together harmoniously.

These breakout groups allowed representatives from the MOVE21 cities to engage in in-depth discussions about the practical challenges and solutions related to policy coherence within their unique contexts. It was a valuable opportunity for knowledge exchange among the cities.

6.1.2.2 Workshop on Multi-level transport governance (June 2023)

On 1 June 2023, TNO in cooperation with the City of Oslo, contributed to a workshop at the Eurocities Mobility Forum and the Urban Nodes Forum organised by MOVE21's sister project SCALE-UP (Horizon 2020 Grant Agreement 955332) on *Converging layers: sustainable transport systems for the city and beyond – Focus on multi-level transport governance* on the topic of policy coherence.

Next to presenting the concept of policy coherence and its dimensions, the City of Oslo shared insights on policy (in)coherence in Oslo on three topics:

- EV uptake – as an example of vertical policy coherence;
- Toll ring – as an example of horizontal policy coherence;
- Shared / micro mobility – as an example of policy incoherence, both horizontal and vertical.

In the ensuing workshop insights on the topic from other cities were collected, to feed into the work on policy coherence within MOVE21.

6.1.2.3 Input collected during regular MOVE21 meetings (throughout 2023)

Collecting input during regular project meetings in which TNO participated is an integral part of the ongoing policy coherence monitoring process in WP6. Regular meetings involve for example Task Force meetings, and bilateral meetings with project managers and local monitors. It ensures that policy coherence is not a static concept within MOVE21, but an evolving and adaptable one, allowing project stakeholders to identify, address, and learn from (in)coherences and challenges as they arise, ultimately contributing to more effective and aligned policies and actions.

6.1.2.4 Dedicated 'intake meetings' with project managers of MOVE21 living labs to coordinate policy coherence monitoring (April-May 2023)

The groundwork for the monitoring of policy coherence in the context of MOVE21 D6.6 involved several 'intake meetings' with WP6 and the Living Lab project managers in the period April-May 2023.

These intake meetings served three critical purposes:

- Firstly, they aimed to establish a shared and coherent understanding of the concept of policy coherence – cf. section 6.1.1.1 of this report. This ensured that all parties involved were on the same page regarding what policy coherence means and its significance.
- Secondly, these meetings explored the scope and relevance of policy coherence monitoring within the specific context of the MOVE21 cities – cf. section 6.1.1.2 of this report. During the intake meetings it was jointly decided that the central tenet of monitoring policy coherence within the framework of the three MOVE21 cities is the examination of (in)coherences between two key facets: (a) the strategic ambitions and objectives set at the strategic policy level, written down in strategic policy plans, and (b) the tangible, on-site implementation of (MOVE21) measures and solutions.
- Thirdly, these meetings had the additional purpose of selecting one *use case* of policy (in)coherence per city. This collaborative selection process ensured that the monitoring exercise would be more practical and focused, allowing for a detailed examination of specific instances where policy coherence may be a challenge or an opportunity for improvement. The following use cases have been selected:
 - Oslo: micro mobility hub, Groruddalen; with a focus on (in)coherences between strategic plans and procurement and tender arrangements for shared mobility on site.
 - Gothenburg: micro mobility hub, Nordstan; with a focus on (in)coherences between strategic plans and public financing and business model arrangements for private entities on site.

- Hamburg: micro depot, Holstenstraße; with a focus on (in)coherences between strategic plans and implementation operations on site. Nota bene: for Hamburg the wish was to focus on developing micro hubs in general, Holstenstraße is exemplary in this light.

During the intake meetings, it was decided to organise a workshop in each city with a wider group of invitees to collectively discuss policy coherence, including reference to the chosen use case. The setup of the workshops is discussed in the next section.

6.1.2.5 Workshop on policy coherence per city (August-September 2023)

The workshops are a vital component of the policy coherence monitoring exercise. In collaboration with the project managers of the MOVE21 Living Labs, the following workshops were setup by TNO:

- Oslo: 23 August 2023, 10:00-12:00
 - Invitees (n=10) from organisations TNO, Agency for Climate, Agency for Urban Environment, Agency for Improvement and Development and Ruter.
 - Central use case: micro mobility hub, Groruddalen; with a focus on (in)coherences between strategic plans and procurement and tender arrangements for shared mobility on site.
 - The workshop was hosted and chaired by TNO, in English language.
- Gothenburg: 7 September 2023, 13:30-15:30
 - Invitees (n=12) from organisations TNO, RISE, City Gothenburg, Business Region Gothenburg, Nordstan Samfällighet and Volvo.
 - Central use case: micro mobility hub, Nordstan; with a focus on (in)coherences between strategic plans and public financing and business model arrangements for private entities on site.
 - The workshop was introduced by TNO in English. After the introduction, the workshop was hosted and chaired by RISE, as it was the preference to conduct the workshop in native Swedish. After the workshop, insights were discussed jointly by TNO and RISE.
- Hamburg: 19 September 2023, 10:00-12:00
 - Invitees (n=10) from organisations TNO, Senate Chancellery, Ministry of Economy and Innovation, District of Altona, HafenCity University, Deutsche Bahn Smart City and Logistics Initiative Hamburg.
 - Central use case: micro depot, Holstenstraße; with a focus on (in)coherences between strategic plans and implementation operations on site. Nota bene: for Hamburg the wish was to focus on developing micro hubs in general, Holstenstraße is exemplary in this light.
 - The workshop was hosted and chaired by TNO, in English language.

The workshops provided an interactive space for targeted, invited stakeholders per city to collectively explore, discuss, and strategize around policy coherence, with a particular focus on the chosen use case. The outcomes of these workshops fed directly into the monitoring process, enriching it with practical insights and perspectives to enhance the alignment between policy ambitions and on-site actions. More specifically, the objectives of the workshop were:

1. Enhance understanding of policy coherence in context of urban transport and mobility innovation.
2. Analyse and strategize solutions for policy coherence for the use case.
3. Promote stakeholder collaboration for improved policy coherence for the use case and similar initiatives (i.e., scaling up).

The workshop followed a structured format comprising a general introduction, followed by individual workshop rounds, each aligned with a specific objective. In each round, the workshop-host initiated proceedings with a brief introduction. Subsequently, participants engaged in discussions guided by specific questions tailored to the respective objective:

1. Enhance understanding of policy coherence in context of urban transport and mobility innovation – guiding questions for group discussion:

- What are your thoughts on 'policy coherence' in the realm of urban transport and mobility innovation?
- (Why) is it essential for achieving positive outcomes?
- Share any personal experiences or examples that shed light on the significance of policy coherence – what can we learn from this?
- 2. Analyse and strategize solutions for policy coherence for the use case – guiding questions for group discussion:
 - Considering the use case, how do you perceive the challenges in aligning strategic plans with practical implementation?
 - What factors contribute to policy incoherences?
 - What creative strategies or innovative approaches do you think could effectively bridge the gap between policy goals and on-site implementation for the use case?
- 3. Promote stakeholder collaboration for improved policy coherence for the use case and similar initiatives (i.e., scaling up) – guiding questions:
 - How might effective stakeholder collaboration positively impact the policy coherence of the use case or similar urban mobility initiatives (i.e., scaling up)?
 - Can you suggest specific ways in which these collaborative efforts could lead to more successful policy implementation for the use case or similar urban mobility initiatives (i.e., scaling up)?

In short, key data collection for the D6.6 policy coherence monitoring exercise constituted these policy coherence workshop per Living Lab, organised by TNO in period August-September 2023. Findings are described per city in the sections 6.2, 6.3 and 6.4 below.

6.2 Oslo

This chapter details the collected insights regarding policy coherence in the Living Lab of Oslo, based on the workshop of 23 August 2023. Collected insights are reported based on the workshop structure as explained in section 6.1.2.4.

The Oslo Living Lab emerges as a proactive initiative aimed at influencing existing and forthcoming regulations in several key areas. In the realm of mobility, particular focus has been directed towards micro-mobility regulation, notably concerning electric scooters. The Living Lab also strives to create new shared mobility regulations, encompassing a wider spectrum of shared mobility services. Furthermore, it delves into the complexities of urban logistics, emphasizing spatial planning with a focus on optimizing underutilized urban areas for logistics purposes. This encompasses strategic considerations of how to incorporate a logistics perspective into city planning. A crucial facet involves exploring the city's role in urban logistics, including the establishment of consolidation terminals. Additionally, the Oslo Living Lab contemplates innovative solutions, such as combining people and goods in a single vehicle, thereby optimizing transportation efficiency. Finally, a notable objective has been the establishment of a zero-emission zone, aligning with sustainability goals and environmental concerns, but where cities such as Oslo and Bergen have not been given the necessary permits to do so by the national government. On a more strategic level the revision of the regional plan for land use and transport for Oslo and Akershus is taking place and a land use and freight plan is being developed for Oslo Functional Urban Area. These multifaceted efforts underscore Oslo's commitment to advancing urban mobility and logistics in an environmentally conscious and integrated manner.

6.2.1 Policy coherence in context of urban transport and mobility innovation

The following insights and observations were shared in round 1 of the workshop:

- National regulation and geographical focus:
 - National laws currently regulate mobility services primarily based on geographical areas rather than as comprehensive mobility solutions.
 - The focus has been on the impact of these services on urban spaces rather than considering them as integrated mobility solutions.
- Balancing regulations with mobility needs:
 - There was a recognition that the initial (current) approach of regulating the number of mobility services did not necessarily align with fulfilling the actual mobility needs of the city's population.
 - Shifting towards a more need-centric perspective was emphasized.
- Localized approaches:
 - Different cities, like Oslo and Bergen, have adopted varying approaches to regulating e-scooters, including caps on the number of scooters and zoning regulations.
 - Challenges related to the integration of mobility services across different municipalities were discussed.
- Regulatory challenges and bureaucracy:
 - Changing regulations was acknowledged as a lengthy and bureaucratic process, which can slow down the pace of adaptation and innovation.
 - Delays in regulatory changes may lead to missed opportunities for mobility innovation.
- Responsibility and tools:
 - There was a discussion about the responsibility of regulating mobility services and the need for more efficient tools for regulation.
 - The idea of granting more responsibility to Public Transport Authorities (PTAs) to manage and administer micro mobility services was raised. The need for expanded mandates for PTAs to work with new mobility services and make traveling in the outskirts more attractive was raised.
- Addressing political perspectives:
 - The influence of political choices on regulations was highlighted, particularly in terms of the quantity of e-scooters.
 - There was recognition that mobility should be thought of in a less restrictive manner, allowing for innovation and the implementation of new mobility types in a well-managed way.
 - Participants discussed the challenges of aligning political decisions with actual mobility needs.
- Need for proof and impact assessment:
 - Demonstrating the impact of regulations and the need for change was emphasized.
 - Test sites, like the micro mobility hub, were seen as valuable in providing evidence of regulatory issues.

In conclusion, the workshop round highlighted the need for a more adaptable, needs-focused, and coherent approach to regulating mobility services in urban areas. It underscored the importance of aligning political choices with actual mobility needs and the potential for expanded mandates for PTAs to create more integrated and effective mobility solutions.

6.2.2 Policy coherence in light of the use case (micro mobility hub, Groruddalen)

The following insights and observations were shared in round 2 of the workshop:

- Ownership and area issues:
 - One significant issue revolved around land ownership, as mobility hubs often span areas owned by different entities. This ownership complexity extended to areas like signage and maintenance.
 - Balancing control with the municipality's facilitating role is a challenge.

- Lack of overarching mobility plan:
 - Oslo lacks a comprehensive mobility plan or Sustainable Urban Mobility Plan (SUMP), resulting in fragmented mobility policy and planning.
 - The absence of a mobility hub network plan was highlighted.
- Challenges in finding locations:
 - The scarcity of available locations for mobility hubs, given the already occupied urban space, raised concerns.
 - Redistributing space and repurposing existing areas were considered potential solutions.
- Zoning plan and long-term planning:
 - The difficulties associated with changing zoning plans, which often take several months or even years and require exceptions, were discussed.
 - Long-term planning for mobility services proved challenging due to regulatory constraints.
- Service operators and regulatory challenges:
 - Integrating different mobility service operators for a hub, including permit processes, was described as complex and time-consuming.
 - The need for standardization to simplify integration and provide a consistent customer experience was highlighted.
- Economic impact on operators:
 - Changes in economic situations and competition influenced the attractiveness of the market for mobility service operators.
 - A trend toward consolidation in the market was observed.
- Responsibility and contracts:
 - Public Transport Authorities (PTAs) play a role in selecting operators through municipal tender processes, aiming for fairness.
 - PTAs have a responsibility for allowing mobility services to operate.
- Inter-city cooperation:
 - While there is dialogue between cities like Oslo, Bergen, and Trondheim, cooperation on mobility hubs and services is limited.
- Permit and building process:
 - Obtaining permits for structures or installations, such as bicycle lockers, involves a time-consuming process, including coordination with various agencies.
 - Agencies are exploring ways to improve cooperation and streamline permit and building processes.

In conclusion, the workshop highlighted the multifaceted challenges associated with creating mobility hubs and aligning them with urban planning and policy. The need for comprehensive mobility plans, strategic location planning, and better coordination between agencies, landowners and service operators was emphasized.

6.2.3 Stakeholder collaboration for improved policy coherence

The following insights and observations were shared in round 3 of the workshop:

- Lack of an overarching mobility plan:
 - Participants highlighted the absence of an overall mobility plan or Sustainable Urban Mobility Plan (SUMP) as a significant challenge.
 - The lack of a shared direction and goals makes collaboration between municipal agencies challenging.
- Collaborative efforts and resource allocation:
 - Collaborative efforts between agencies in a municipality require both formal and informal collaboration.
 - Challenges included varying goals, resource allocation difficulties, and a lack of established routines for effective problem-solving.

- Starting from scratch:
 - The absence of a common starting point for mobility hub projects and the need to build up efforts from the ground level were noted.
 - The absence of an overarching plan was felt particularly in the context of the MOVE21 project (start).
- The need for a shared frame of reference:
 - Participants emphasized the importance of establishing a shared frame of reference and common goals to guide projects like MOVE21.
- Involving citizens and scaling up:
 - Involving citizens in the planning process, such as through surveys and activities, is considered crucial.
 - Scaling up initiatives require constant citizen engagement and feedback.
- Collaboration with private partners:
 - Collaboration with private partners is seen as essential.
 - An open and welcoming approach to service providers and mobility providers is encouraged.
- Attractiveness vs. barriers:
 - For some mobility providers, the economic viability of providing services in certain areas was a key concern.
 - Attractiveness for participation by (private) mobility providers was linked to municipal backing and involvement in the MOVE21 project.
- Sustainability of collaboration:
 - The sustainability of collaborative efforts beyond the MOVE21 project was discussed.
 - Participants highlighted the importance of transparency in maintaining collaborations and suggested that transparency was essential for all stakeholders.

In conclusion, the discussion underscored the critical need for overarching mobility plans, collaborative efforts, citizen engagement, and transparency towards (private) service providers in urban mobility projects. The challenges discussed were seen as opportunities for improving mobility planning and policy. Overall, participants emphasized the importance of shared goals to address urban mobility issues effectively.

6.3 Gothenburg

This chapter details the collected insights regarding policy coherence in the Living Lab of Gothenburg, based on the workshop of 7 September 2023. Collected insights are reported based on the workshop structure as explained in section 6.1.2.4.

In Gothenburg's organisation for urban development, significant policy developments are currently underway, reflecting a proactive approach to enhance urban mobility. First, a new traffic safety plan is being crafted, with a particular focus on accommodating new mobility services, aligning with evolving transportation trends. Concurrently, there is an ongoing revision of the Sustainable Urban Mobility Plan (SUMP), which constitutes a vital element in shaping the city's traffic strategy. Moreover, Gothenburg is actively involved in developing a Sustainable Urban Logistics Plan (SULP), emphasizing efficient and sustainable goods and logistics management within the city. Additionally, the city is working on formulating 'Statutes towards shared micro-mobility', further highlighting its commitment to promoting shared mobility options. Initiated by the ICCP in MOVE21, the development of citywide guidelines for mobility hubs has started, where one of the first steps is to suggest geographical directions for mobility hubs in the revision of the car parking policy. Importantly, the members of the Gothenburg Living Lab actively participate in these policy development processes. They serve as monitors, ensuring that the policies align with the principles and insights learned from MOVE21. Furthermore, they engage in constructive dialogues with the responsible stakeholders to ensure that the city's evolving policies resonate with the Living Lab's objectives and the broader vision for enhanced urban mobility.

6.3.1 Policy coherence in context of urban transport and mobility innovation

The following insights and observations were shared in round 1 of the workshop:

- Influencing factors in policymaking:
 - Policymaking is influenced by a multitude of factors, including budget constraints, interactions with other administrative bodies, the political will to enact change, and the existing policy landscape.
- Policy synergy and coherence:
 - The absence of certain policies or the lack of alignment between policies can lead to policy incoherence. This can pose significant challenges in governance and management, particularly when intermediate-level policies are missing.
- Addressing symptoms vs. holistic planning:
 - Policymaking often tends to address specific issues or symptoms rather than considering the broader urban mobility and planning context. This can result in a fragmented approach that fails to address underlying structural challenges.
- Balancing policy size and ambition:
 - Policies can vary in scale, from addressing small issues to tackling large, overarching challenges. Striking the right balance is essential to ensure policies effectively align with urban mobility and development goals.
- Policy ecosystem and interactions:
 - Policymaking forms a complex ecosystem where different policies interact with each other. Sometimes, additional policies are needed to connect existing ones under a common umbrella.
- Challenges in policy harmonization:
 - Harmonizing policies across different administrations and sectors can be challenging, especially when certain goals, like employment and growth, are prioritized over environmental and sustainability objectives.
- Goal conflicts and ambiguity:
 - Conflicts often arise between sustainability goals, necessitating a careful balancing act. Determining what to prioritize and where to invest can be ambiguous and requires careful consideration.
- Policy hierarchy and vision:
 - Cities often define policy hierarchies, with strategic documents and visions guiding policymaking. However, contradictions can emerge at lower administrative levels.
- Compliance and interpretations:
 - Policymaking can face significant challenges in ensuring compliance, as interpretations of policies can vary widely among employees. Institutional arrangements are needed to control and monitor compliance and interpretations.
- Bridging the gap between policy and implementation:
 - Policymaking can sometimes feel detached from practical implementation. Bridging this gap is crucial to see policies translated into meaningful actions on the ground.

In conclusion, these insights emphasize the need for a more holistic and coherent approach to policymaking about urban transport and mobility. Policymakers must address structural challenges, harmonize policies across different sectors, and balance competing goals. Institutional arrangements for compliance and better communication between policy development and implementation are essential to drive meaningful change.

6.3.2 Policy coherence in light of the use case (micro mobility hub, Nordstan)

The following insights and observations were shared in round 2 of the workshop.

The Nordstan case highlights critical issues and potential solutions in urban mobility, particularly concerning the prioritization of use of (geographical) space and the complex interplay of policies and strategies. The following (exemplary) issues are identified in the Nordstan case:

- Prioritization challenges:
 - Urban mobility and planning often faces issues of prioritizing (street or public) space when various policies and strategies collide. Despite policies favouring walking and cycling, public transport, and goods transport over cars on paper, this hierarchy is often not reflected in reality.
- Regulation compliance challenges:
 - Compliance with regulations, such as truck restrictions, can be challenging due to concerns from powerful business interests. Politicians may hesitate to enforce regulations for fear of opposition.

The following solutions contributing to policy coherence are proposed:

- Incremental steps:
 - Addressing these challenges may require a step-by-step approach at different levels. Initiating small changes, such as through managerial decisions, can pave the way for more substantial innovation.
 - Projects (like MOVE21) can serve as catalysts for long-term innovation.
 - Encouraging innovation within routine operations is vital to break away from traditional ways of working.
- Collaboration with decision-makers:
 - Bridging the gap between decision-makers in the line organisation and those working on urban mobility and planning is essential.
 - Collaborative efforts and clear communication are needed to implement change effectively.
- Incentives and business models:
 - Creating incentives within the urban environment that generate added value is crucial.
 - Identifying where values are created and who benefits from them is essential in establishing fair business models.
 - There is a demand for a variety of business models: different measures, such as mobility services, parking spaces, and craftsman hotels, may require distinct business models to thrive.
- Financial support:
 - Public-private collaborations, such as the Nordstan case, may require continued financial support from the city to stimulate innovation and transition towards more sustainable practices.
- Ecosystem movements:
 - Encouraging movements within the business ecosystem can facilitate the transition towards sustainable urban mobility and planning.
- Pricing innovation:
 - Pricing innovative solutions, like mobility hubs and new collaborative models, is a novel challenge. It represents innovation in itself and requires careful consideration.

In conclusion, addressing the complexities of urban mobility and planning and policy implementation demands a multifaceted approach. Incremental changes, collaboration between stakeholders, innovative business models, and incentives can collectively contribute to more sustainable and efficient urban environments, as demonstrated in the Nordstan case.

6.3.3 Stakeholder collaboration for improved policy coherence

The following insights and observations were shared in round 3 of the workshop:

The following issues are identified as challenging in stakeholder collaboration:

- Measuring innovation:
 - It can be challenging to attribute specific results to stakeholder collaboration, especially when it involves innovative approaches and new ways of organising that have not been tried before.
- Selectivity in collaboration:
 - Collaboration cannot occur with everyone, and prioritization is necessary. Identifying key areas where collaboration is crucial helps achieve meaningful results.
- Collaboration dynamics:
 - The larger the number of stakeholders involved, the more difficult it becomes to work together. Different (sub) groups of actors can collaborate on specific issues, maximizing their collaboration effectiveness.
- Iterative development:
 - An iterative process for developing business and solutions together is often lacking but is vital for creating governance innovation and policy coherence.
- Trust building:
 - Trust is a foundational element in stakeholder collaboration, but it requires time and commitment to establish. Full transparency in costs and budget allocations fosters trust among stakeholders.

The following issues are identified as opportunities for stakeholder collaboration:

- Alignment and speed:
 - Collaboration helps align the actions and decision-making speed of different actors, ensuring they work cohesively towards common goals.
- Structured collaboration:
 - Establishing structures, focus, speed, and clear objectives enhances collaboration.
 - Taking incremental steps can help build trust and foster more effective partnerships.
- Financial impact:
 - The financial aspect can significantly influence collaboration quality, but clear communication and logical substantive 'work packages' for collaboration efforts are equally important to ensure successful partnerships.
- Co-creation and flexibility:
 - Co-creation allows actors to create solutions together, ensuring that vulnerable or uncertain stakeholders are not left behind.
 - Experimentation, testing, and exploration are integral to collaborative processes.
- Procurement support:
 - Collaboration can be expedited by streamlining the procurement of services, but challenges may arise in determining what needs to be procured in advance.
 - Expertise and guidance, including legal support, can facilitate the procurement process.
- Consideration in procurement:
 - Public procurement, while necessary, should not solely focus on the lowest price. Factoring in other elements, such as quality and collaboration potential, is crucial to maintain trust among stakeholders.

In conclusion, effective stakeholder collaboration in urban mobility governance involves a delicate balance of prioritization, trust-building, flexibility, and strategic structuring. It plays a pivotal role in driving innovation and policy coherence, ultimately leading to more effective and efficient urban mobility development.

6.3.4 Wishlist of actions in light of policy coherence

As a final addition for Gothenburg, it is relevant to indicate that a 'wish list' of actions was formulated in the workshop. Nota bene: this has *not* occurred during the workshop of Oslo and Hamburg. The wish list of actions outlines several key initiatives aimed at improving urban mobility. This wish list underscores the commitment to innovative and cohesive policies that can enhance urban mobility, reduce environmental impact, and improve the overall quality of life in the city of Gothenburg:

- Traffic prioritization:
 - Consider prioritizing one specific type of traffic to enhance urban mobility, potentially reducing congestion and improving overall transportation efficiency.
- Parking lot strategies:
 - Explore strategies and solutions related to parking lots, with an emphasis on optimizing their use and aligning them with broader mobility goals.
- Craftsman's vehicles in Nordstan:
 - Examine the possibility of relocating craftsman's vehicles from Grönsakstorget to Nordstan, potentially optimizing urban space and transport resources.
- Goods transport plan:
 - Await the development of a comprehensive goods transport plan, which will define policies and restrictions for the city centre. Action plans can be initiated once the policy is in place.
- Innovative tariffs:
 - Introduce innovative tariffs for parking locations, adjusting pricing based on the type of vehicle and its intended use, such as cars or electric bikes. This could encourage sustainable transport choices.
- Regulation workshop:
 - Organise workshops focused on urban regulations, incentives, and parking policies. Invite relevant stakeholders, including regulatory and parking authorities, to discuss possibilities and strategies.
- Business model analysis:
 - Conduct cost-benefit analyses of various business models to estimate costs and impacts. Assess the feasibility of services based on the number of customers and their preferences.
- Unlocking technical solutions:
 - Address barriers caused by local regulations and policies that hinder the implementation of technical solutions for urban mobility.
- Electric bicycle incentives:
 - Consider providing incentives for electric bicycle parking, such as reduced parking fees, to promote sustainable transportation alternatives.
- Inter-agency collaboration:
 - Encourage collaboration between different city administrations and companies, such as Älvstranden, to exchange knowledge and share insights on what is feasible and effective.
- Market competitiveness:
 - Ensure that test sites maintain a relative advantage in the market to support their sustainability beyond the project's (MOVE21) conclusion.

6.4 Hamburg

This chapter details the collected insights regarding policy coherence in the Living Lab of Hamburg, based on the workshop of 19 September 2023. Collected insights are reported based on the workshop structure as explained in section 6.1.2.4.

The City of Hamburg is actively engaged in the formulation and update of various policies that align with the objectives and fields of activity outlined in MOVE21. One significant development is the 'Urban Logistic Hamburg - Strategy for the Last Mile', which was published in 2021. This strategy underscores the city's commitment to addressing the challenges of the last-mile delivery in a sustainable manner.

Concurrently, there is an ongoing effort to develop and enhance the Traffic Development Plan), reflecting Hamburg's dedication to comprehensive and forward-thinking traffic management. The city has also recognized the importance of addressing climate concerns, with updates to the City's Climate Plan, published in 2019, and an additional update currently in progress. These climate-focused policies emphasize the significance of sustainability and climate action in Hamburg's urban planning. Moreover, Hamburg has extended its climate action efforts to specific districts, such as Altona, where it has formulated an Integrated Climate Action Plan and a Mobility-focused Climate Action Plan. Importantly, members of the Hamburg Living Lab and Task Force actively participate in these ongoing policy development processes. They play a role in monitoring the policies to ensure that the experiences and insights gained from the pilot activities in the Hamburg Living Lab are incorporated, fostering a mutually beneficial relationship between the city's policy goals and MOVE21's objectives.

6.4.1 Policy coherence in context of urban transport and mobility innovation

The following insights and observations were shared in round 1 of the workshop:

- Inter-ministerial alignment:
 - Different ministries, covering different policy domains such as traffic, mobility, transit, and economic innovation, must collaborate to align policies and achieve district and EU climate goals.
 - The importance of considering mobility as a daily need is stressed.
- Lesson integration:
 - It is essential not to disrupt higher-level policies excessively but to learn from past experiences and integrate these lessons into future policies, especially in the context of developing mobility hubs.
- Evidence-based argumentation:
 - Collecting data and insights – based on mobility hub development practices – is critical to building stronger arguments for policy alignment and better addressing community needs.
- Policies' influence on districts:
 - Policies often prioritize individual ministry responsibilities, potentially overlooking the broader impact on districts. Logistics, in particular, might be underrepresented in urban planning.
- Network participation:
 - Active involvement in formal and informal forums and networks is essential to garner attention and understanding, facilitating the sharing of strategies, best practices, and policy alignment.
- Feedback loop and monitoring:
 - Establishing a feedback loop through monitoring is crucial. Policies need regular assessment based on actual implementation and outcomes.
- Integration efforts:
 - Logistics, often overlooked in mobility strategies, can benefit from initiatives that aim to integrate various aspects of urban planning and mobility.
- Local and federal cooperation:
 - Cooperation between local and federal levels is vital, especially for securing support and funding for projects like micro depots. Political backing is critical for mobility and logistics initiatives' success.

In conclusion, the workshop discussion underscores the complexity of policies, responsibilities, and goals in urban planning, mobility and logistics. Effective collaboration, alignment, and a commitment to learning and adapting policies are essential for creating sustainable and efficient urban mobility systems.

6.4.2 Policy coherence in light of the use case (micro depot, Holstenstraße)

The following insights and observations were shared in round 2 of the workshop:

- Expanding beyond logistics:
 - The conversation highlights that micro depots are not just about logistics; they can encompass social and mobility aspects. This broad view reveals more significant challenges and opportunities.
- Permissions and regulations:
 - Obtaining permissions for combining multiple functions within a single space, such as micro depots with added features, can be complex and require expertise, like architectural design.
- Standardizing processes:
 - Ensuring that the process for establishing hubs and experimenting with new ideas is consistent across districts in a city is essential for streamlining operations and reducing bureaucratic hurdles.
- Learning from experiments:
 - The experimentation process (in MOVE21) allows for identifying barriers, speeding up processes through different permissions, and gaining insights into various aspects of hub development.
- Business models:
 - Micro depots need sustainable business models that can influence companies positively. One approach is to offer shared hubs and share advantages, such as rent reduction, with multiple players.
- Fair use of public space:
 - Ensuring the fair use of public space is a challenge. It involves considering aspects like combining different end users in one building.
- Role of private companies:
 - Private companies can contribute to sustainable mobility by making investments that align with environmental goals. For example, SAGA's interest in DHL lockers or the wider use of parking spaces (privately owned) demonstrate a commitment to environmentally friendly practices.
- City development:
 - Cities may consider decreasing parking space to attract residents by offering alternative amenities and addressing sustainability concerns.

In conclusion, the conversation highlights the need for streamlined processes, standardization across districts, and innovative business models to create efficient and sustainable urban spaces, incorporating logistics, mobility, and social aspects. The fair and sustainable use of public space remains a crucial consideration in urban and mobility development.

6.4.3 Stakeholder collaboration for improved policy coherence

The following insights and observations were shared in round 3 of the workshop:

- Breaking down silos:
 - Efforts have been made to break down silos between different ministries, districts and stakeholder groups, yet efforts can be improved.
 - Roundtable discussions and platforms for exchange have been established to encourage collaboration and input from various parties, yet efforts can be improved.
- Location-centric approach:
 - Concerning mobility hub development, a focus on the location and the permissions required is essential before expanding the stakeholder group. Stakeholder analysis has been an organic process, with some stakeholders becoming involved along the way. The challenge lies in bridging the gap between ministries, districts, and private companies.

- Neutral facilitator:
 - Having a neutral facilitator encouraging stakeholder collaboration plays a crucial part in building links with similar projects in other cities, establishing norms, and sharing lessons learned. The neutral facilitator encourages discussions between cities, politicians, and logistic companies, contributing valuable insights.
- Engagement with inhabitants:
 - While there may not be direct engagement with inhabitants in some cases, there are broader interactions with a wider area, including providing help for the homeless. Feedback from citizens is essential, and their expectations must align with the project's location and budget constraints.
- Shift in industry focus:
 - Compared to previous mobility hub projects, private companies are now more interested in the operational aspects rather than new pilot initiatives.

In conclusion, the discussion emphasizes the importance of collaboration, breaking down silos, and involving various stakeholders in the implementation of mobility hub projects. A location-centric approach, clear communication with citizens, and neutral facilitators play significant roles in the success of these initiatives. The shift in the industry's focus towards operational concepts reflects evolving priorities in hub development. Challenges remain, particularly in bridging the gap between ministries, districts, and private entities.

6.5 Conclusions, insights and next steps

This chapter opened with a conceptual definition of policy coherence, including explanation of two dimensions of policy coherence (cross-sectoral or horizontal; and cross-level or vertical). It was explained that policy coherence extends beyond harmonizing policies between sectors and levels of governance: it also delves into the alignment between high-level strategic plans and the operational tactics necessary for their execution.

For D6.6, this deliverable, the central tenet of monitoring policy coherence within the framework of the three MOVE21 cities is the examination of (in)coherences between two key facets: (a) the strategic ambitions and objectives set at the strategic policy level, written down in strategic policy plans, and (b) the tangible, on-site implementation of (MOVE21) measures and solutions.

Key data collection for the D6.6 policy coherence monitoring exercise constituted a policy coherence workshop per living lab, organised by TNO in period August-September 2023. Findings have been described per city in sections 6.2, 6.3 and 6.4 above.

This final part of the chapter goes into some preliminary conclusions, insights and findings that are documented for all three Living Labs. Also, some next steps and necessary actions going forward in terms of policy coherence monitoring are detailed.

6.5.1 Conclusions, findings and insights based on policy coherence monitoring

The three cities shared insights and observations on challenges related to policy coherence during the workshops. The following overlaps between the cities can be distilled:

- Lack of comprehensive mobility plans:
 - One common challenge shared by all three cities is the absence of comprehensive mobility plans. They all recognized that a comprehensive and integrated approach to urban mobility planning is essential to effectively address the complex issues faced by modern cities. Without such plans, it becomes difficult to harmonize various aspects of urban mobility, such as public transport and city logistics, sustainability, and traffic management. These plans are instrumental in guiding cities towards sustainable and efficient transportation systems.
- Regulatory challenges:

- Another common challenge faced by the cities is the bureaucratic and time-consuming nature of regulatory changes in their respective mobility and land use policies (e.g., permit procedures for land use change). They all acknowledged that navigating the regulatory landscape can be a lengthy and tricky process, which may lead to delays in adapting policies to meet evolving urban mobility needs. Such regulatory hurdles can potentially hinder innovation and the implementation of new mobility solutions.
- Multi-level collaboration:
 - Multi-level collaboration emerged as a crucial requirement in all three cities. They emphasized the need for different national/regional/local government levels to work together effectively to align policies from local up to EU, and corresponding climate goals. This challenge underscores the complexity of urban mobility governance, where multiple governmental bodies at various levels must coordinate their efforts. Achieving policy coherence often depends on breaking down silos and ensuring that different governmental bodies on national/regional/local level are on the same page regarding urban mobility objectives.
- Stakeholder collaboration:
 - Collaboration with various stakeholders, including private companies (e.g., mobility service operators), citizens, and other cities, was recognized as a vital component of policy coherence in all three cities. They emphasized the need for transparency, trust-building, and structured collaboration with these stakeholders. Engaging stakeholders effectively helps in garnering support, gathering valuable insights, and ensuring that policies are aligned with the actual needs and expectations of the community.
- Feedback loop and monitoring:
 - Lastly, all three cities stressed the importance of establishing feedback loops through monitoring to assess policy implementation and outcomes continuously. Evidence-based decision-making was considered essential. Monitoring not only helps in evaluating the effectiveness of policies but also provides valuable data for policymakers to make informed decisions. In the context of the MOVE21 project, collecting evidence from the implementation of measures and solutions is particularly relevant for convincing policy-makers to adjust policies based on real-world results. This emphasis on data-driven governance reflects the cities' commitment to creating evidence-based and adaptable urban mobility policies.

In summary, these common challenges highlight the need for comprehensive planning, streamlined regulatory processes, collaborative governance, stakeholder engagement, and data-driven decision-making to achieve policy coherence in the complex realm of urban mobility. Each city's experience underscores the importance of addressing these challenges to create sustainable and efficient transport systems for their residents.

6.5.2 Next steps in policy coherence reflective monitoring

As mentioned in section 6.1.2, in the beginning of the MOVE21 project (in D6.1) a set of monitoring activities and methods with regards to policy coherence were defined – see again Table 7: Proposed monitoring methodologies for Policy Coherence (extracted from D6.1).

The monitoring exercise in D6.6, particularly through the use cases discussed in the three cities, has addressed several key activities related to policy coherence and the development of coordinated or integrated policy responses. These activities included:

- Formulation of coordinated or integrated policy responses in the cities (cf. row/activity 1 in Table 7):
 - According to WP6, the monitoring exercise has offered cities an opportunity to identify challenges and opportunities in their policy contexts.
 - It has provided a platform for cities to formulate policy responses that address these challenges, with a focus on coherence and integration.

- In Gothenburg, this has resulted in the formulation of a comprehensive list of actions aimed at improving urban mobility.
- In Oslo and Hamburg, there is potential for the formulation of similar actions, leveraging the insights gained from the monitoring exercise.
- Implementation of coordinated or integrated policy responses in cities (cf. row/activity **2** in Table 7):
 - According to WP6, the monitoring exercise has offered cities insights into the implementation of policy responses that promote policy coherence.
 - It has facilitated discussions and exchanges of ideas among stakeholders, enabling cities to move from policy formulation to implementation.
 - In Gothenburg, where a list of actions has been explicitly outlined, the next step would be to implement these actions effectively.
 - Oslo and Hamburg can also leverage the insights and recommendations from the monitoring exercise to implement coordinated policy responses.
- Remove obstructive local policies and regulations (cf. row/activity **3** in Table 7)
 - According to WP6, the exercise has offered cities the opportunity to identify obstructive local policies and regulations that hinder the development of integrated mobility solutions.
 - By recognizing these obstacles, cities are better equipped to take action to remove or amend such policies and regulations.
 - In Gothenburg, the list of actions likely includes steps to address obstructive policies, particularly in the context of mobility hubs.
 - Oslo and Hamburg may also consider similar actions to eliminate local barriers that impede policy coherence.

Given the above, concerning next steps for 2024 and 2025, WP6 will play a facilitating role:

- WP6 will help cities further refine and develop their lists of actions, ensuring they are well-defined, actionable, and aligned with the goal of policy coherence.
- WP6 will also assist in establishing monitoring mechanisms to track the progress of these actions, ensuring that they are effectively implemented and contribute to policy coherence goals.

Finally, given the uptake of policies in the relevant city plans and strategies (cf. row/activity **4** in Table 7):

- First, MOVE21 result indicator 4.8 aligns closely with the activities related to the uptake of policies in relevant city plans and strategies. It measures the tangible outcome of how MOVE21 has influenced and contributed to the reformulation of strategic plans in the three Living Labs. This result indicator reflects the project's ability to drive real change and integrate its insights and results into the cities' broader urban development and mobility strategies. This activity is linked with WP8.
- Next steps for WP6 in cooperation with the Living Lab cities are sketched as follows:
 - Q4 2023 – Q1 2024
 - Conduct interviews to understand how MOVE21 influenced city plans and strategies.
 - Gather insights and document feedback from key stakeholders.
 - Analyse interview data for common themes and trends.
 - Q3 – Q4 2024
 - Assess the impact of MOVE21 insights on city ambitions and plans.
 - Cross-reference findings with actual city plans and policies.
 - Identify changes made as a result of MOVE21 and assess their outcomes.

The activities mentioned above will be aligned with ongoing work in WP10, linking to the work conducted on TEN-T corridor level and urban nodes through the Scan-Med Observatory and Urban Nodes Forums, regarding the need for policy integration and the identified risk of increased policy incoherence at urban mobility policy level, both across sectors and cross-level.

7 Next Steps Reflective Monitoring

Based on the insights collected in this deliverable we will reflect on the methodology set-up for the Reflective Monitoring in the MOVE21 Living Labs (7.1). We will go into potential valuable next steps – based on the insights from the Reflective Monitoring process thus far (7.2). Also, it will detail how these next steps contribute to the final deliverables of WP6 (D6.7 and D6.8) and where we see links with other work packages. Finally, we will present the planning and timeline for Reflective Monitoring in the remaining period of the project (7.3).

7.1 Reassessing Reflective Monitoring

The reflective monitoring activities have been executed now for approximately 1,5 years. Based on the Reflective Monitoring Guide (D6.1), the following activities were foreseen:

		2022				2023		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3
Deliverables + Milestones	Deliverables		D6.2/6.3/ 6.4 + D6.5				Validation activities	D6.6
	Milestones						MS8	
ICCP's	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month		
	2: Observations	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable		
	3: Exit Surveys	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable		
	4: Interviews	A						
Innovation Capacity	2: Observations				B			B
	3: Exit Surveys				B			B
	4: Interviews	B						
	5: Self-Assessment tool						5	
Policy Coherence	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month		
	2: Observations	A	A	A	A+B	A	A	A+B
	3: Exit Surveys				B			B
	4: Interviews	A						

Figure 11: Timeline Reflective Monitoring, based on D6.1, Q1 2022 – Q3 2023³

For the topic of ICCPs, the activities have taken place as planned and the methodologies set-up for the reflective monitoring fit to the collection of insights and lessons learned. Both the local monitors and the WP6-members play an important role in the data collection.

³ The reference to A and B in the table, links to different types of the mentioned methodologies used. See D6.1 for more detail.

In Q4 2023 it is foreseen that next steps identified in this deliverable for ICCP monitoring will be discussed with the local monitors. This will further detail the focus of the reflective monitoring towards the end of the project.

For the topic of Innovation Capacity, some activities were launched later than presented in the timeline. The Observations and Exit Surveys were implemented in Q3 2022, the planned activity in Q3 2023 has been moved to Q1 2024. The interviews and self-assessment tool were implemented in parallel (Q4 20–2 - Q2 2023), also feeding information from the self-assessment tool into the interviews. These activities were previously planned to alternate with each other, but we see added value in continuing to deploy this in parallel. In doing so, we will also further develop the self-assessment tool, based on the input obtained through interviews.

For the topic of Policy Coherence, activities regarding the WP6 Process Logbook, observations and interviews took place as planned. For the organisation of sessions, a webinar was organised in Q1 2023 and the dedicated sessions in the Living Labs took place in Q2 2023. For the latter, exit surveys have been distributed and collected.

Overall, the methodologies as set out in D6.1, provide a collection of data that gives insight in progress from different perspectives. There is added value in deploying the various methods, as provided in D6.1. As mentioned earlier, this will also be further coordinated with the local monitors specifically for the reflective monitoring of the ICCPs.

7.2 Next Steps Reflective Monitoring activities

This section summarizes the next steps of Reflective Monitoring for the topics of ICCPs (7.2.1), Innovation Capacity (7.2.2) and Policy Coherence (7.2.3). We detail what actions and changes are valuable for the final months in the project and how these activities will contribute to writing the final two deliverables of WP6 (D6.7 and D6.8). Furthermore, we make links to other work packages in MOVE21, to create synergy in our efforts (7.2.4).

7.2.1 Innovation Co-Creation Partnerships

The ICCPs have further matured in the past year building on the basis of the organisational model and vision and mission that were developed in the Set-up Stage. The partnerships have expanded, the first results have been and are being showcased, and the implementation is ongoing. As part of these actions, business model(s) have been operationalised and are tested linked to the innovations and solutions. As things are happening ‘on the ground’, this also gives the opportunity to further develop the promotion and brand of the Living Lab, in relation to the MOVE21 project and on the level of the Innovation Co-Creation Partnership (also taking into account promotion and branding on the level of individual partners).

We see the biggest challenge regarding the Financing Strategy and Business Model for the ICCP. At this point mainly Hamburg Living Lab has secured this within the Logistics Initiative Hamburg and focuses on the potential for continuation. For Oslo and Gothenburg this will need additional scoping and discussions how capture the commitment from partners involved in the ICCP, defining ownership, to ensure longevity.

As we have entered the Stabilising Stage, focus will be put on the following activities:

- Operational services and joint facilities are developed;
- Dedicated business models for mobility and logistics service innovations are developed and deployed;
- Upscaling and follow-up open innovation projects are developed (local, national, or international remit).

At the same time the lessons learned in a broad sense will be captured as part of the Reflective Monitoring process. Two additional rounds of semi-structured interviews on the progress of Year 3 (Q4

2023) and Year 4 (Q4 2024) are foreseen. The lessons learned will be an important input for D6.8 – *Practitioners’ guide for setting up self-sustaining Innovation Co-Creation Partnerships*, intended as guidance for other cities wishing to create self-sustaining innovation co-creation partnerships.

7.2.2 Innovation Capacity

Based on the first round of analysis, we see opportunities and activities to increase the Innovation Capacity in Living Lab cities; some of which are closely linked to activities of other work packages. This translates to active knowledge brokering and peer learning activities, foreseen in Q1 and Q2 of 2024. The exact activities will be designed per Living Lab city based on their specific needs.

Furthermore, broader deployment of the Innovation Capacity Survey among additional respondents in the Living Lab cities but also in the Replicator cities is foreseen. This will happen in Q1 of 2024 in order to establish a broader baseline. These additional reflections are foreseen to be discussed during a peer-learning event among all cities that will take place in Q1 of 2024.

Finally, the reflective monitoring will be concluded with another set of semi-structured interviews with respondents from the Living Lab cities at the end of Q2 of 2024. The aim of the monitoring is to provide insight in how the innovation capacity in the cities can and will improve over the course of the MOVE21 project and to think of ways how to embed these learnings within the municipal organisations in order to sustain the changes in approach beyond the project lifetime.

This knowledge and lessons learned will feed into D6.7 *MOVE21 guide on improving city’s capacities for promoting sustainable mobility and logistics innovations*. This deliverable is based on the reflective monitoring and its lessons learned on improving the innovation capacity in the three Living Lab cities. Based on the foreseen exchanges, the results of the monitoring are discussed, validated and translated into new actions to improve ways of working. Best practices and lessons learned are validated in joint workshops with representatives from the cities (and the Replicator cities), which will form the input for this deliverable.

7.2.3 Policy Coherence

We will continue our reflective monitoring activities with the Living Lab cities and build on the lines of focus that have been developed.

First, we continue to work on the use cases in the three cities. In doing so, we are building insight regarding:

- Formulation of coordinated or integrated policy responses in the cities
- Implementation of coordinated or integrated policy responses in cities
- Removing obstructive local policies and regulations

We will support the cities and play a facilitating role:

- To further refine and develop their lists of actions, ensuring they are well-defined, actionable, and aligned with the goal of policy coherence.
- To assist in establishing monitoring mechanisms to track the progress of these actions, ensuring that they are effectively implemented and contribute to policy coherence goals.

Second, we will focus on the topic regarding the uptake of policies in the relevant city plans and strategies. This translates into the following activities that WP6 in collaboration with the Living Lab cities will take up:

- Q4 2023 – Q1 2024
 - Conduct interviews to understand how MOVE21 influenced city plans and strategies.
 - Gather insights and document feedback from key stakeholders.
 - Analyse interview data for common themes and trends.
- Q3 – Q4 2024
 - Assess the impact of MOVE21 insights on city ambitions and plans.
 - Cross-reference findings with actual city plans and policies.
 - Identify changes made as a result of MOVE21 and assess their outcomes.

Furthermore the activities mentioned above will be aligned with ongoing work in WP10, linking to the TEN-T corridor level and urban nodes. The lessons learned captured in these activities, will also feed into D6.7 and D6.8.

7.2.4 Links to other Work Packages in MOVE21

In the deliverable, connected to the three topics – ICCP, Innovation Capacity, Policy Coherence – we see connections and links to the scope and activities in other work packages. The overview of connections to further explore are summarized in Table 8 below. Separate meetings with the WPs will take place to further define the activities in the next year.

Table 8: Connections to scope and activities of other work packages regarding the ICCP, Innovation Capacity and Policy Coherence

Work Package	Connection – linked to ICCP, Innovation Capacity, Policy Coherence
WP3	• ICCP, Knowledge Brokerage process
WP4	• ICCP, Knowledge Brokerage process • Innovation Capacity, Knowledge Brokerage on the topics of Leadership and Network (strategic networking, flexible procurements) • Policy Coherence, linking to governance innovation
WP5	• ICCP, Knowledge Brokerage process
WP7	• Overarching Knowledge Exchange Webinar between Living Labs and Replicator cities on Innovation Capacity • Peer learning session on Innovation Capacity regarding collected best practices around Organisation, Knowledge Management, Network
WP8	• Connecting the Reflective Monitoring (WP6) activities in general to the Impact Analysis Framework for the Living Labs • Innovation Capacity, link to result indicator 4.9 and 4.10 • Policy Coherence, link to result indicator 4.8
WP9	• ICCP, linking to Key Exploitable Results (and accompanying business models)
WP10	• Peer learning session on Innovation Capacity regarding collected best practices around Knowledge Management • Policy Coherence, linking to and alignment on the TEN-T corridor level and urban nodes

7.3 Planning and timeline Reflective Monitoring

Based on the reassessment of the Reflective Monitoring activities (7.1) and next steps (7.2) we have updated the planning and timeline, as presented in D6.1. A total version based on D6.1 and the update below can be found in Appendix F – Planning and timeline Reflective Monitoring.

		2023				2024				2025	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
Deliverables + Milestones	Deliverables		Validation activities	D6.6			Validation activities	D6.7	Validation activities	D6.8	
	Milestones		MS8				MS10		MS9		
ICCP's	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month				Finalise Project Deliverables	
	2: Observations	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable					
	3: Exit Surveys	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable					
	4: Interviews				C				D		
Innovation Capacity	2: Observations			B							
	3: Exit Surveys					B					
	4: Interviews						E				
	5: Self-Assessment tool		5				5				
Policy Coherence	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month					
	2: Observations	A	A	A+B	A	A	A+B	A	A		
	3: Exit Surveys			B			B				
	4: Interviews				C			D			

Figure 12: Timeline Reflective Monitoring - updated, based on D6.1, Q4 2023 – Q1 2025

Based on our insights we have changed the timing of some of the reflective monitoring activities:

- Innovation Capacity, 3B – exit surveys
Knowledge brokerage and peer learning activities as presented in 5.5.2 will take place in Q1-Q2 2024
- Innovation Capacity, 4E – interviews
These interviews are of great importance as input to D6.7, therefore they have been placed in Q2 2024 (previously they were placed in Q4 2024)
- Policy Coherence, 4C – interviews
We expect to need some more time to execute the interviews, so the timing has been extended to Q1 2024
- Policy Coherence, 4D – interviews
As we want the interviews to also give input to D6.7, the period has been extended into Q3 allowing for a first round of interviews to take place earlier; all interviews will take place during Q3-Q4 2024

All activities will be closely planned in collaboration with partners in the Living Labs. Where we see connections to the scope and activities of other work packages, this will be aligned with the concerned Work Package Leaders. Finally, the local monitors will be involved in the reflective monitoring activities of the ICCPs.

8 Conclusions

This deliverable details the interim results of the reflective monitoring process for the three Living Lab cities, the intermediate results on developing the Innovation Co-Creation Partnerships, and on increasing innovation capacity and policy coherence. In this chapter we give an overview of the conclusions.

8.1 Innovation Co-Creation Partnerships

Each Living Lab city has developed its own flexible **organizational model**, essential for managing test sites and operational partnerships. However, challenges remain in aligning diverse fields like passenger mobility and urban freight transport, maintaining communication, and sustaining these partnerships over time. Cultural differences among partners also demand openness and transparency.

The flexibility of the **vision and mission** statements of the Living Labs allows for adaptation as new partners join. Nonetheless, implementing these visions is challenging due to unforeseen obstacles, which can sometimes present opportunities for innovation.

While Hamburg has developed a **sustainable financing strategy**, Oslo and Gothenburg are still working on theirs. The development of business models is more advanced for specific concepts or measures, though ensuring alignment between partners' goals remains a significant challenge.

All Living Labs are actively working to **expand partnerships** both externally and within local government bodies. Trust-building and practical cooperation are key challenges, particularly when scaling up projects and working beyond the project's lifetime. Most progress has been made at the test site level, but more work is needed to develop ICCP-wide **business models** that can guide future operations. This next step requires careful consideration of different operational scenarios.

MOVE21 is referenced in various Living Lab activities, but the challenge lies in deciding whether to build a MOVE21 brand or enhance existing brands. Clear agreements on **branding strategies** are essential for supporting broader cooperation.

Living Labs have successfully **showcased** concepts and measures at both local and EU levels. However, the challenge is maintaining transparency on business-sensitive information, especially in relation to business and revenue models.

8.2 Innovation Capacity

The reflective monitoring activities have established an overview of the challenges the Living Lab cities face, to enhance Innovation Capacity.

All Living Lab cities struggle to point at a comprehensive **vision for innovation**, though specific goals like climate neutrality include innovation elements. Implementing these visions is challenging due to misalignment between organizational levels and limited resources, as innovation is often seen as a secondary task. Political support for innovation is perceived as symbolic, with limited strategies and resources, and the freedom to innovate largely depends on individual leadership traits.

Municipalities operate in silos, making cross-departmental **collaboration** difficult, with communication often top-down and reliant on informal networks. Attracting young talent is a challenge due to low salaries and a resistance to innovation within public organizations, where risk-taking is discouraged.

The fear of failure and the emphasis on accountability and stability hinder experimentation, leading to a reluctance to admit and learn from mistakes.

City organizations face challenges in **knowledge management**, as existing IT systems are not effectively used and project reports often go unread. Knowledge sharing is often informal, with little emphasis on learning from obstacles or deeply discussing ongoing projects. High employee turnover exacerbates the problem, as much of the valuable tacit knowledge leaves with individuals, leaving it undocumented and inaccessible to the wider organization.

External partnerships are essential for innovation, but collaboration with private companies is hindered by rigid procurement rules. Learning from past projects is not institutionalized, making it difficult to scale successful pilots beyond their initial phases. **Networking and learning** processes depend heavily on individual initiative rather than being systematically supported by the organization.

At the same time **best practices** have been collected and **opportunities** are identified for improving innovation capacity in the Living Lab cities. Key opportunities involve developing a self-assessment tool for cities to monitor their innovation capacity. Best practices that have been brought forward link to appointing innovation leaders, creating structured networks for continuous dialogue with external stakeholders, and establishing effective knowledge management systems.

8.3 Policy Coherence

Common challenges in the Living Lab cities include a lack of comprehensive mobility plans and slow regulatory processes, which can delay the adoption of new solutions. Multi-level collaboration between governments is crucial for policy alignment, while stakeholder collaboration enhances policy coherence. Finally, a robust feedback loop and monitoring system are needed to adjust policies based on real-world data and outcomes.

8.4 Overall Conclusion

The Living Lab cities demonstrate significant progress in setting up innovation ecosystems and partnerships, but there are still obstacles to overcome, particularly in areas like long-term financing, policy coherence, and scaling innovation. Collaboration, both internally and externally, and a focus on learning and adapting based on real-world results, are key to future success.

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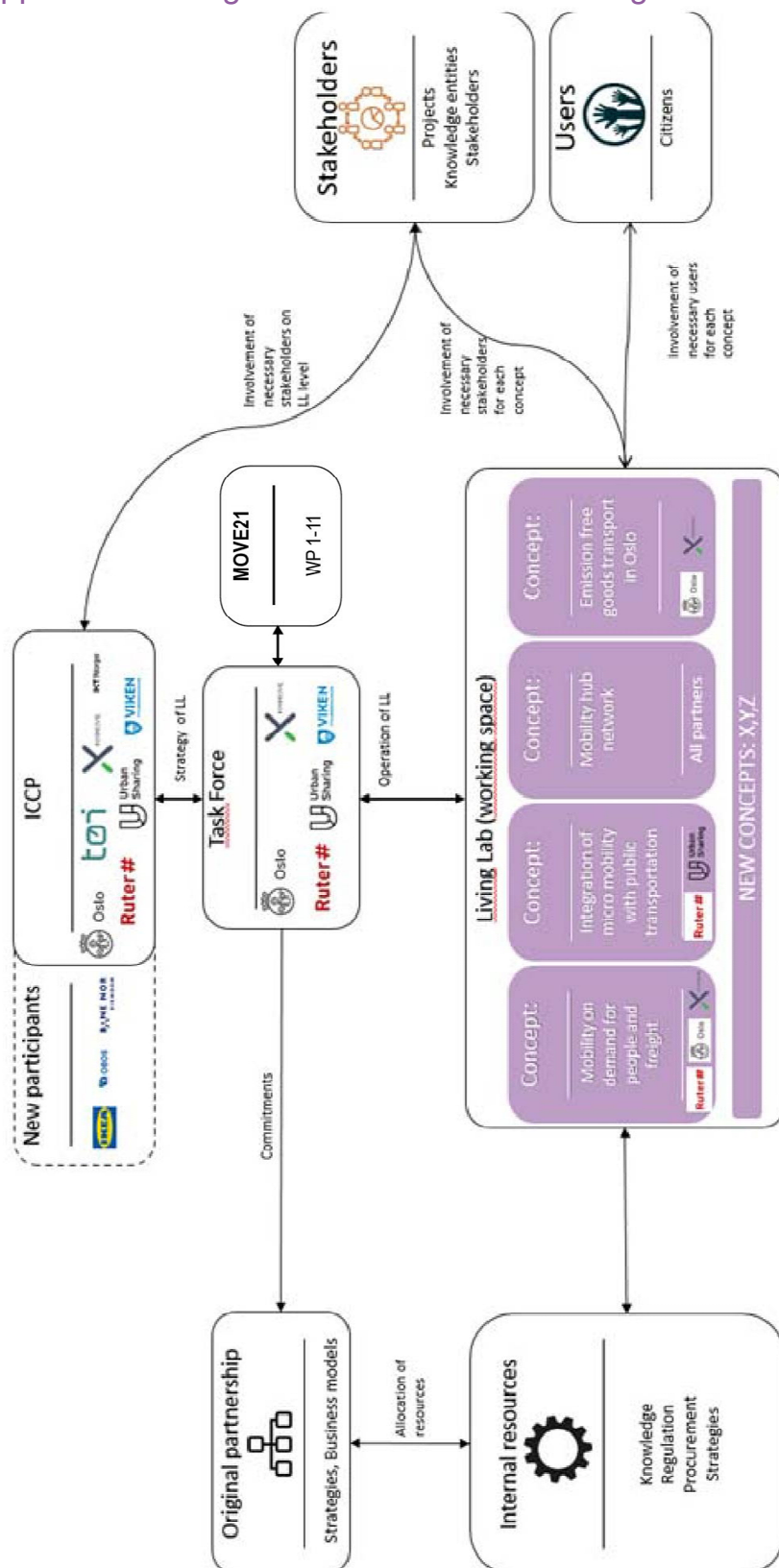
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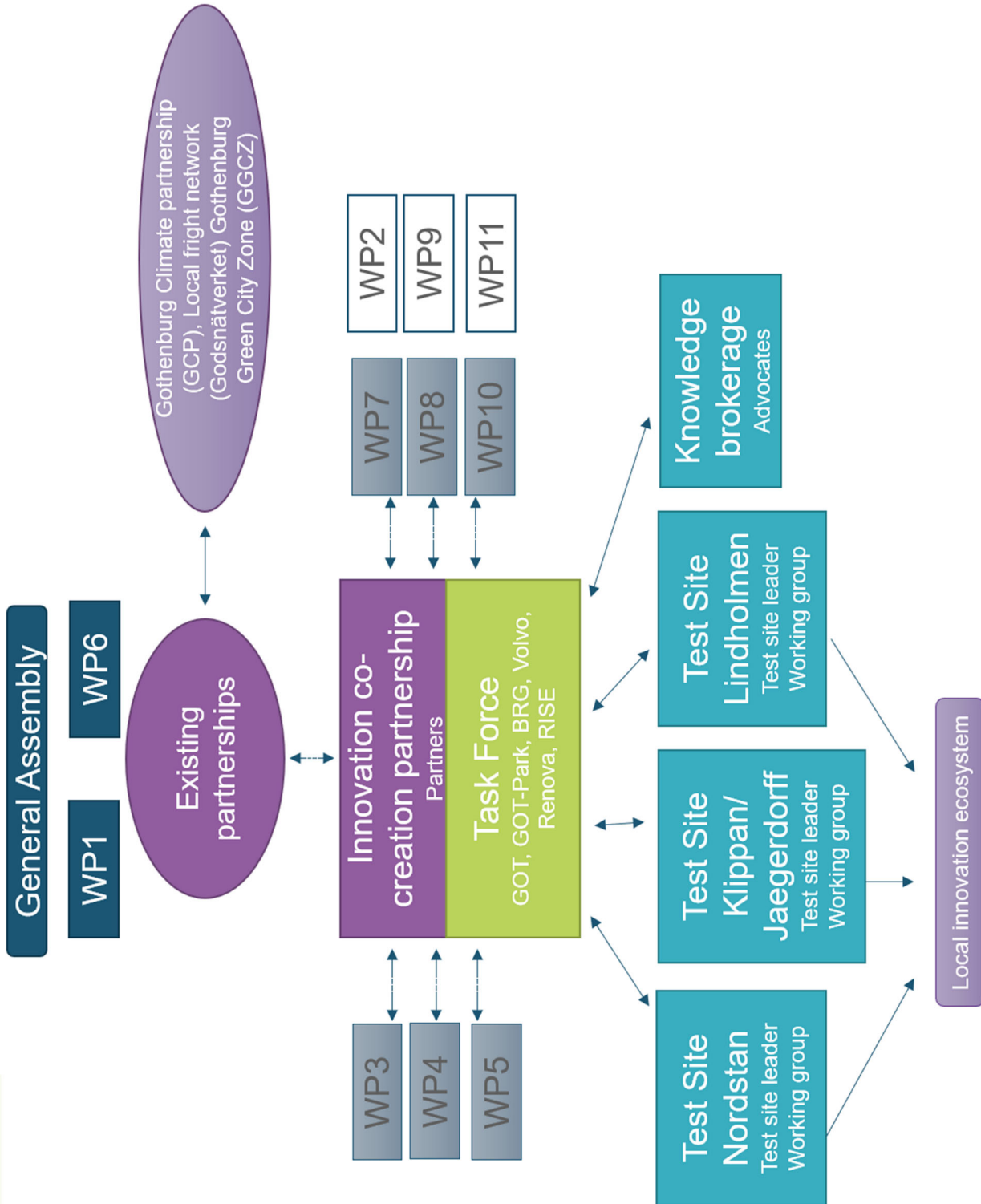
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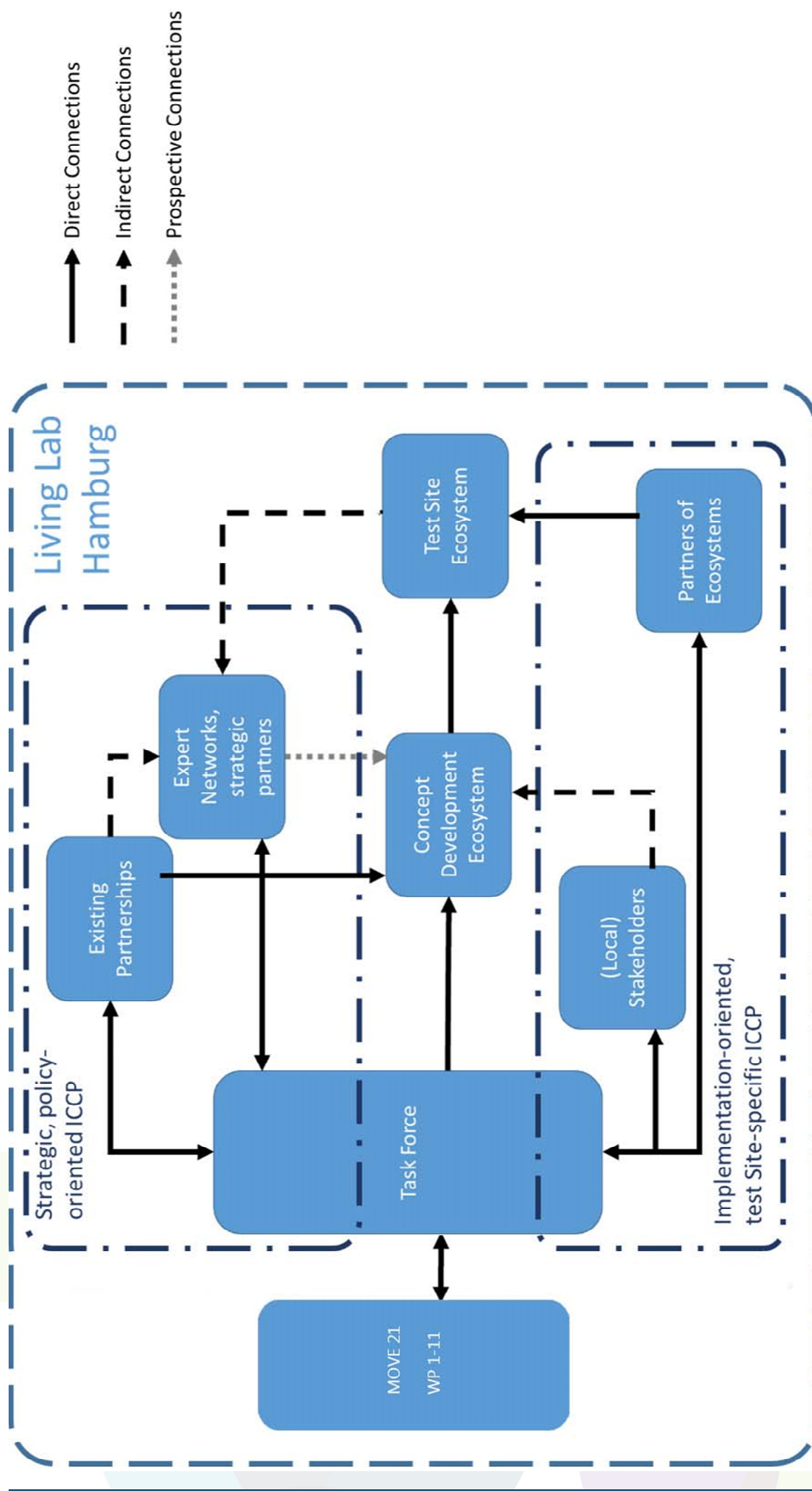
Appendix A – Organisation model Oslo Living Lab



Appendix B – Organisational model Gothenburg Living Lab



Appendix C – Organisation model Hamburg Living Lab



Appendix D – Semi-structured interview protocols Innovation Capacity

Semi-structured interview protocol for Innovation Capacity baseline

Goals:	Gather detailed information and perspectives on existing innovation capacity within relevant municipal agencies, to inform the creation of the innovation capacity survey (self-assessment tool). Together with the self-assessment tool and its outcomes, these interviews will contribute to deliverable 6.7, the MOVE21 guide on improving city's capabilities for promoting sustainable mobility and logistics innovations.
Interview respondents:	Municipal staff relevant to innovation in mobility and logistics
Interviews conducted by:	TNO
Estimated time commitment:	1 hour per interview, 4-5 interviews per city
Frequency:	Once

Introduction:

For Reflective Monitoring purposes, as part of the activities of WP6, Innovation Capacity is 'measured' in the project. The measuring of Innovation Capacity is done in three different ways: a baseline interview, a self-assessment tool and an exit interview. These three ways of monitoring are developed to determine the present state of innovation capacity at different moments during the project. These snapshots allow an insight in the innovation capacity of the cities and the specific elements the cities need to adjust and improve. To start off, a baseline interview is done, of which the semi-structured interview protocol can be found below.

Interview Protocol for Baseline Interview:

In order to evaluate the present state innovation capacity in each city – and to establish a baseline – an interview protocol is developed. This interview takes place in the first year of the project.

Leadership

- Can you tell us something about the innovation strategy? Is there a clear vision/ambition?
- Can you tell us about the connection with public leaders (administrative management) within the city?
- To what extent do public leaders (mayor/aldermen) engage in/support urban logistics and mobility innovation?
- Is there, in your opinion, sufficient political support for innovation in the municipality/city/project? How is that reflected?

Organisation

- What does the collaboration between different departments and levels within the municipality look like? Is there mutual trust?
- Is there room and flexibility to experiment with innovative practices/materials/technologies?
- Is risk-taking encouraged? How is that expressed? Are people generally allowed to find and act on opportunities?
- How do employees and their superiors react to failure? How are potential failures addressed?
- Are there sufficient resources for innovation? What resources do you think are needed?

Knowledge management

- Can you elaborate on the networks in which knowledge is (developed and) shared?
- Are there mechanisms to collect and disseminate knowledge within the municipality/project organisation?
- How do you embed new knowledge in the existing structure of the municipality/project organisation?
- Is the municipality/project organisation able to mobilise the appropriate technology for urban logistics and mobility innovation? Can you elaborate?

- Is the municipality/project organisation able to identify potential risk/side-effects of urban logistics and mobility innovation?

Network

- What kind of actors are involved in the project? And to what extent are they engaged?
- What networks related to urban logistics and mobility innovation are you engaged in? Both internal (within the municipality or project organisation) and external (with other parties in the cities).
- To what extent is networking encouraged within your organisation? Is there time and budget allocated to networking?

Learning

- How are innovations and their implementation evaluated? What are the strategies for this?
- How do you ensure that lessons learned from a project are retained in your own organisation?
- How do projects like MOVE21 relate to your daily work?
- How would you describe the employees' attitude towards innovation and change? Within the municipality and within the project.

Appendix E – Innovation capacity survey (self-assessment tool)

Survey questions for innovation capacity status quo

Goals:	Gather information from range of municipal staff-members about the way(s) in which innovations are dealt in their respective agencies/ units. The outcomes will contribute to deliverable 6.7, the MOVE21 guide on improving city's capabilities for promoting sustainable mobility and logistics innovations.
Respondents:	Municipal staff relevant to innovation in mobility and logistics
Survey distributed by:	TNO
Estimated time commitment:	1 hour for translation, 15 minutes to complete survey, 1 hour to distribute and collect
Frequency:	Twice

Introduction:

For Reflective Monitoring purposes, as part of the activities of WP6, Innovation Capacity is 'measured' in the project. The measuring of Innovation Capacity is done in three different ways: a baseline interview, a self-assessment tool and an exit interview. These three ways of monitoring are developed to determine the present state of innovation capacity at different moments during the project. These snapshots allow an insight in the innovation capacity of the cities and the specific elements the cities need to adjust and improve. The self-assessment tool is a survey that could be filled out by relevant stakeholders in the municipality to assess the current state of Innovation Capacity in the city.

Leadership

- The city's long-term vision on urban transport and mobility innovation is clear.
- The city's goals to achieve the long-term vision on urban transport and mobility innovation are clear.
- The city's administrative leadership (e.g. managers, directors) facilitates and supports their employees in developing new ideas on urban transport and mobility innovation.
- The city's administrative leadership is successful in connecting internal actors that are involved in urban transport and mobility innovation.
- There is high-level sponsorship dedicated to and responsible for urban transport and mobility innovation within the organisation.
- Political leaders in the city encourage efforts on urban transport and mobility innovation.

Organisation

- It is easy for employees that have ideas for urban transport and mobility innovations to find the right people in the organisation to further develop these innovations.
- It is easy for external entities (such as (other) governments, companies, knowledge institutes or citizens) that have ideas for urban transport and mobility innovation to find the right person in the municipality to further develop these innovations.
- The municipality allocates sufficient resources - such as time, budget and personnel - to innovate and experiment with urban transport and mobility.
- The organisation sufficiently monitors the contribution of innovations to broader organisational goals and the city's long-term vision.
- The municipality has an organisational culture that stimulates urban transport and mobility innovation.
- The municipality's innovation projects are carried out by a team of various types of expertise and professional backgrounds.
- The various departments and levels (operational, tactical and strategic) working on urban transport and mobility innovation are well aligned and connected.
- The municipality encourages employees to be open to change and new ways of doing and thinking.

Network

- The people involved in urban transport and mobility innovation in the city engage and involve external entities ((other) governments, companies, knowledge institutes, citizens and citizen representation groups) in the development of new ideas.
- The municipality has a strong network of external entities ((other) governments, companies, knowledge institutes, citizens and citizen representation groups) relating to urban transport and mobility innovation.
- The municipality has a strong internal (formal and informal) network of employees with an interest in urban transport and mobility innovation.
- The organisation succeeds in building cooperative relationships between actors from external entities ((other) governments, companies, knowledge institutes, citizens and citizen representation groups) based on trust.
- Informal networks are actively recognised and managed by the municipality, both inside and outside the organisation.

Knowledge management

- There is a regular exchange of knowledge on urban transport and mobility innovation within the project teams, within the department and across departments the organisation.
- The municipal organisation has well established structures through which knowledge about urban transport and mobility innovation becomes embedded in documents, processes and routines.
- The municipality works in teams (departmental or project-based) that have the required expertise to realise urban transport and mobility innovation.
- The municipality knows how to mobilise and retain the right technology and knowledge (or people) for urban transport and mobility innovation.

Learning

- The municipality formulates learning objective(s) for each experiment/pilot.
- The performance and contribution of innovations are monitored and reported on based on predetermined explicit goals and indicators.
- The municipality succeeds in turning experimental collaboration with external entities ((other) governments, companies, societal organisations and project structures such as in MOVE21) into sustained collaboration structures that outlast the project lifetime.
- The municipality is successful in initiating experiments/pilots such as zero emission transport hubs.
- The municipality is successful in scaling up experiments/pilots such as zero emission transport hubs.
- The municipality evaluates experiments/pilots with urban transport and mobility innovation to extract insights and lessons learnt.
- The municipality successfully embeds lessons learned from innovation projects such as MOVE21 in its formal structures (such as work processes, policy, regulation).

Personal info

- What is your name?
- What city do you represent?
- What is your function within the municipal organisation?
- How long have you been working in the municipal organisation?
- What domains does your work cover (e.g. mobility, urban planning, organisational development)?

Appendix F – Planning and timeline Reflective Monitoring

Below we present the original planning and timeline, as reported in D6.1, as well as the updated planning and timeline, suggested based on the reporting in D6.6.

Original planning and timeline – based on D6.1 (page 28):

	2022				2023				2024				2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Deliverables + Milestones		D6.2/6.3/6.4 + D6.5				Validation activities MS8	D6.6			Validation activities MS10	D6.7	Validation activities MS9	D6.8
ICCP's													
1: Logbooks													
2: Observations													
3: Exit Surveys													
4: Interviews													
5: Self-Assessment tool													
Innovation Capacity													
1: Logbooks													
2: Observations													
3: Exit Surveys													
4: Interviews													
Policy Coherence													
1: Logbooks													
2: Observations													
3: Exit Surveys													
4: Interviews													

Updated planning and timeline:

	2022				2023				2024				2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Deliverables + Milestones		D6.2/6.3/6.4 + D6.5				Validation activities	D6.6			Validation activities	D6.7	Validation activities	D6.8
Milestones						MS8				MS10		MS9	
ICCP's	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month				Regular updates, at least once / month			
	2: Observations	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable				A at least once / quarter, B when applicable			
	3: Exit Surveys	A at least once / quarter, B when applicable				A at least once / quarter, B when applicable				A at least once / quarter, B when applicable			
	4: Interviews	A											
	5: Self-Assessment tool												
Innovation Capacity	2: Observations	B				B				B			
	3: Exit Surveys	B				B				B			
	4: Interviews	B								E			
	5: Self-Assessment tool					5				5			
Policy Coherence	1: Logbooks	Regular updates, at least once / month				Regular updates, at least once / month				Regular updates, at least once / month			
	2: Observations	A	A	A	A+B	A	A	A+B	A	A	A+B	A	A
	3: Exit Surveys				B			B			B		
	4: Interviews	A								C			