GOVERNANCE INNOVATION: SOLUTIONS IN MOVE21 AND IMPLICATIONS FOR OTHER CITIES

Project deliverable D4.2

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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
- **Greece**: Hellas Centre for Technology and Research

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Deliverable executive summary

This deliverable contains a comprehensive analysis of governance innovation in the three Living Labs of Oslo, Gothenburg and Hamburg in MOVE21. The work with the solutions and measures in the Living Labs have been observed, data has been collected and analysed, and conclusions and recommendations have been developed. The deliverable also contains governance scenarios for upscaling, replication and transferability, corresponding to a work package milestone. These scenarios are also incorporated into the conclusions. The main conclusions are that *stakeholder involvement is crucial during all phases of the project*, the need to *view projects as negotiated solutions*, and the need for a *proactive and flexible approach to policy making*. These conclusions are well in line with the conclusions drawn in MOVE21 deliverable D4.1, that was submitted in January 2022.

Key words

Governance Innovation, Living Labs, Test Sites, Reflection and Learning, Policy and Regulations, Innovation Capacity, replication cities, upscaling

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1. List of abbreviations and acronyms

Acronym	Meaning
D	Deliverable
LL	Living Lab
ICCP	Innovation Co-Creation Partnership
MS	Milestone
TF	Task Force
T	Task
WP	Work Package

2. Purpose of the deliverable

This deliverable is part of WP4 Governance innovation and presents the interim results on governance innovation related activities and solutions in the three Living Lab cities within MOVE21: *Oslo*, *Gothenburg,* and *Hamburg*. The deliverable provides a full analysis of governance aspects in terms of success and difficulties that the LL cities encountered on the way, during the development and implementation of concepts and measures in the test sites until October 31, 2023 (the progression since January 2022 when the test sites were under development). Lessons learned and potential pitfalls to implementation of solutions are identified, implications for other cities are discussed and a set of recommendations for replicator and cascade cities, as well as cities outside of the MOVE21, is formulated.

2.1 Attainment of the objectives and explanation of deviations

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

2.2 Intended audience

The intended audience for this deliverable is the project partners of MOVE21 and broader audience beyond the participating cities who can benefit from getting an overview of the progress, solutions, success, and difficulties that the LL cities of the project met in regard to governance innovation since the establishment of the LLs. The deliverable also points to lessons learned in this regard. These can be especially relevant for replicator and cascade cities as well as cities outside of MOVE21 who are interested in facilitating governance innovation in other contexts.

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

The deliverable is connected to WP3, WP6, WP7 and WP8 in MOVE21. The primary link to other work packages is to WP6, and through WP6 to the Living Labs. There is further a link to WP8 through the data collected in logbooks that document instances of governance innovation in the LL cities. This data is used as a secondary data source for the D4.2 among other data sources (see 3.1 Methodology and approach section). The relationship between WP4 and the Living Labs has been by passive observation, interactive dialogue and interviews, and mutually supportive feedback. This has allowed WP4 to collect a diverse range of empirical evidence that provides the basis of this deliverable.

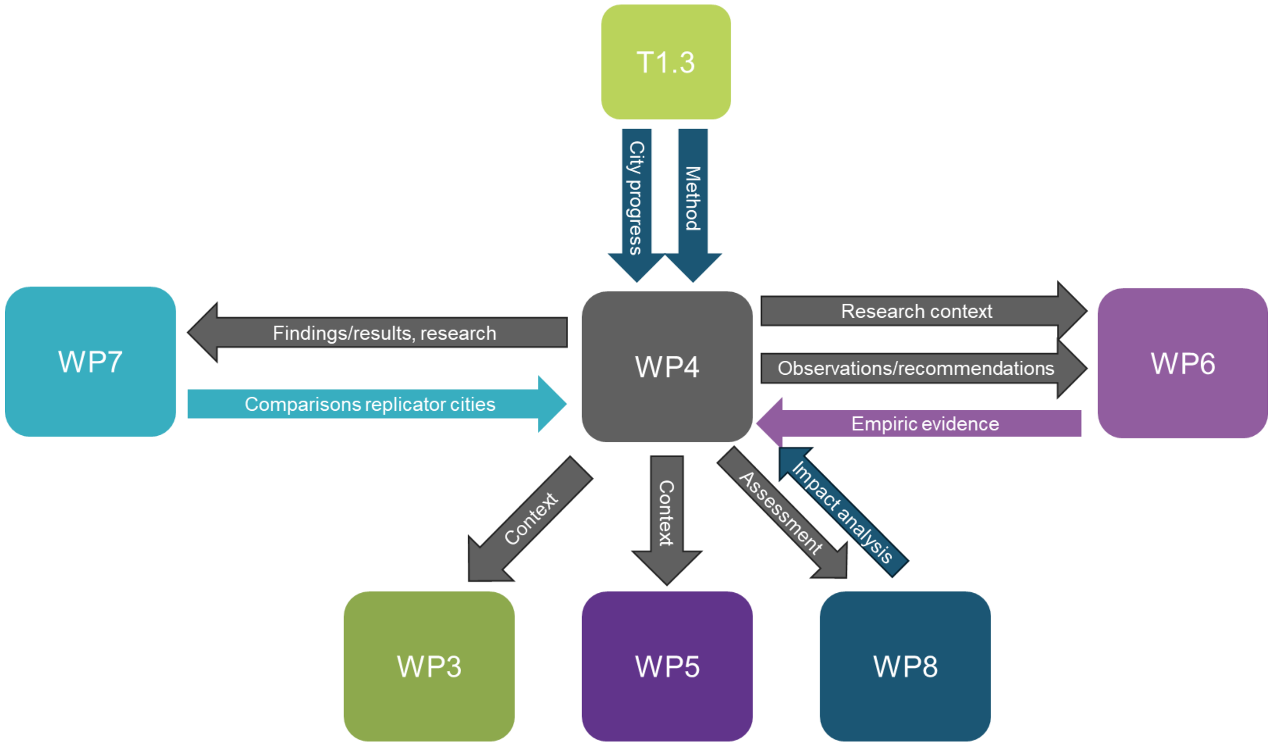

Figure 1 – Relationship between WP4 and other work packages

In Figure 1, above, a simplified graph of the relationship of WP4 to other work packages can be seen. As governance innovation is a central part of an innovation project such as MOVE21, interaction with other work packages is also essential, and only the main relationships are presented in the figure.

3. Introduction to Governance Innovation in MOVE21

Based on MOVE21's Grant Agreement and the Governance Innovation Assessment Framework developed in D4.1, Governance Innovation is described in the introduction, and a brief overview of applied methodology is given.

3.1 Methodology and approach

Methodologically, this deliverable builds on six parameters for the assessment of governance innovation in each LL city that have been formulated in D4.1 and put together as a Governance Innovation Assessment Framework (Figure 3, below) and that includes the aspects of *policy and regulations; stakeholders; resource mobilisation; market and customers; legitimacy*; and *entrepreneurial experimentation.* The framework provides structure for the analysis and helps follow the progress in the LL cities over time, on individual city level as well as across the cities.

It further draws on the Milestone 3 (MS3) internal report within WP4 which presented the analysis of the capacity and contexts for governance innovation in the Living Labs of Oslo, Gothenburg and Hamburg (as of May 2023, in progression) from the perspective of enabling and disabling factors for local governance innovation. Specifically, the analysis was done in relation to the solutions the different LL cities tested in their test sites. The *aim* was to perform the analysis of governance initiatives in each LL city, identify specific governance environments and pinpoint critical factors such as strengths and weaknesses (enablers/disablers) for governance innovation in each city.

There has been significant progress since D4.1 (January 2022) where only general features for test sites in the three LL cities were aggregated due to early stage of processes of establishment of the sites. The MS3 report was released for internal use in May 2023 and provided an update on the development that happened at the test sites since January 2022 until May 2023. It further drew on on-site workshops and meetings with Gothenburg and Oslo Living Lab test site leaders and members. Those meetings and workshops were held in November-December 2022 and February 2023 respectively. The MS3 report also drew on an interview with Hamburg Living Lab manager in February 2023.

For the present deliverable additional data was collected in order to get an updated picture of the progress in each LL since May 2023 until end of October 2023. The reason is that many activities related to the establishment and opening of test sites took place and started functioning over the summer 2023.

In particular, for D4.2 additional semi-structured interviews with test site leaders from each LL city were conducted during September-October 2023. In total, two civil servants from Oslo LL, two from Gothenburg LL and one from Hamburg LL were interviewed (see interview questions in Appendix A). Interviews were held online (except one which was conducted in person), recorded and transcribed. Secondary data was also used. It consisted of interviews with LL leaders conducted within WP6, additional secondary data on governance innovation was used that was collected from WP8 logbooks (this data was kindly shared with WP4 by WP6 and WP8). In addition, a workshop on "Governance structures for public-private cooperation" that WP4 held during the Consortium meeting and study visit to Munich in October 2023 was used to get a better picture of difficulties, possibilities and enabling factors around governance innovation in the context of public-private cooperation.

For this deliverable a comprehensive analysis of governance innovation in the LL cities has been done following the progression of the establishment and implementation of the measures in different test sites over two years. In the latest round of interviews with LL leaders and test site leaders, the interviewees were given the opportunity to share the detailed updates and progress made in the most developed test sites/measures of their choice. In other words, the interviewees reported on those measures where according to their knowledge there had been most considerable progress so far. Due to the fact that different test sites and measures are on different development stages, where some are more mature than others, this seems the right strategy to track the latest achievements and lessons learned in governance innovation in the test sites. That is why the deliverable not only provides an overview of the state of the art at the test sites as of end of October 2023, but provides concrete examples from specific measures, putting them into the spotlight of discussions while leaving other measures, with less progress in the background.

Naturally, the methodology chosen for data collection in this deliverable has certain limitations. Information collected through interviews and workshops reflects understandings and personal opinions of interviewees and participating persons and, therefore, might be biased, partial, or not representative of the full picture of the events. However, the interviewees and workshop participants are local expert and thus their professional opinion should be trusted as a valid source of knowledge. To compensate for possible shortcomings, secondary data, collected within other WPs was used for triangulation, as well as interviews were conducted in two rounds (in April and October 2023). Despite the interviews and workshops are the primary basis of the analysis, all conclusions and reflections listed here are of RISE analytical team.

3.2 Introduction to Governance Innovation in MOVE21

WP4 analyses governance and governance related aspects which affect the ability to deploy proposed solutions, both during the first implementation phases and during upscaling efforts:

1. Assess the conditions for change based on existing governance structures and mechanisms in each Living Lab which includes the identification of regulatory and organizational constraints for upscaling.
2. Recommend specific governance related measures that aim to increase innovation capacity and thus increase the likely success of proposed solutions and efforts to upscale these.
3. Provide new governance and collaboration models that enable and support new mobility and logistics solutions or the combination thereof.
4. Provide knowledge and expertise to support LL and replicator cities in creating new policies to support innovative solutions.

WP4 identifies conditions that enable or hinder innovation, how such governance related barriers for implementation may be overcome; it further identifies conditions that enable and stimulate co-creation, tailoring, deployment and upscaling of the proposed measures and solutions. Based on this knowledge, WP4 also provides expertise to increase innovation capacity in the LL cities. WP4 will provide a plan for upscaling for the three LL cities, identifying under what governance conditions upscaling of successful practices and solutions will be possible. The lessons learned in LL cities (both successful practices and strategies as well as pitfalls to watch out for when planning implementation of innovative solutions) will further be relevant for replicator cities, as they will help increase and improve their innovation capacity and provide learning/knowledge exchange on a greater scale.

3.3 Definitions and theoretical frameworks

Definitions

Governance in the literature has focused on social coordination (Moore and Hartley, 2010), it can be defined as ‘new ways of governing’, including participatory and collective decision-making, along with conventional forms of government. Governance understood as 'governing beyond the state' can be understood as striving towards new governance arrangements including collective participation in decision-making and co-production, especially at the local level (Galego et al., 2022).

Governance in the context of this project relates to the mechanisms, processes, relations, and interactions used to organise the provision of public goods and mobility services provided both by public and private partners (e.g., the city, private delivery/logistic companies) or implement projects (living labs). It includes elements such as:

- Policies and goals (on different levels);
- Relationships and divisions of rights and responsibilities between different actors (e.g., different parts of the city), citizen involvement and participation in decision-making;
- Capabilities and leadership.

Governance innovation in the literature is discussed at the intersection of two different literatures: literature on innovation, that historically focused on the private rather than on the public sector, and on innovations which improve organizational performance through product and process innovations rather than on public sector innovations which seek to improve social performance through reorganizations of cross-sector decision-making, financing and production systems (Moore and Hartley, 2010), and the literature of governance, which focused primarily on social coordination.

According to the literature, innovations in governance: go beyond organizational boundaries to create network-based financing, decision-making and production systems; tap new pools of resources; exploit government's capacity to shape private rights and responsibilities; redistribute the right to define and judge value; and should be evaluated in terms of the degree to which they promote justice and the development of a society as well as by their efficiency and effectiveness in achieving collectively established goals (Moore and Hartley, 2010, p.68).

Both (social) innovation and governance often involve collaborative practices between civil society organizations and public actors to develop alternative solutions to meet social needs, and often face comparable socio-political challenges (Galego et al., 2022).

Governance innovation in the context of this project is twofold. On the one hand it concerns developing better ways to organise and govern, with the goal of significantly improving the provision of goods and services to the public and business-to-business logistics. On the other hand, it is understood in its broader connotation which includes any kind on new public-private collaboration schemes, new ways of working together, that define new ways of how specific mobility services are provided. For example, a specific and defined division of roles between public and private actors in case of collaborative running of an urban consolidation centre is a form of governance innovation because such collaboration has not happened before.

Governance innovation is one of the central aspects of the MOVE21 project. Through governance and policy innovation the project supports the ability of decision-makers to design, deploy and monitor policies that enhance synergies between different policy and planning domains, which ultimately ensures greater integration between policy and planning. This is a prerequisite for reaching ambitious 2030 and 2050 climate goals.

The challenge to align or integrate planning mechanisms has strong parallels with the discussion on environmental policy integration that has shown that win-win solutions are possible if policies are combined rather than developed independently. The purpose of MOVE21 is to increase policy coherence and align or integrate 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 in all participating urban nodes.

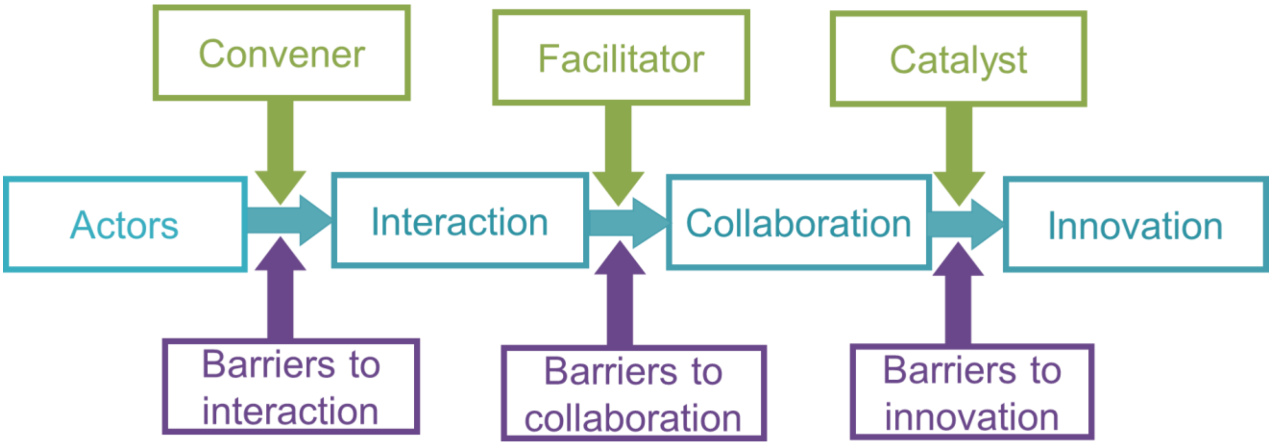

Figure 2 - A model for collaborative innovation and how to develop innovative governance. Based on Torfing (2016).

As a tool for a webinar on governance innovation, for interviews with LL managers and as a basis for a physical workshop on public-private partnerships, a model by Jacob Torfing (2016:2) (Figure 2) was used. It was used as a mental model to help identify hindering and enabling factors for successful governance innovation in the Living Labs.

Consensus, inclusiveness, transparency, accountability, proactivity, and responsiveness are some of the criteria frequently used to assess the functioning of the governance processes. Several broad strategies can be employed to improve these processes, such as using data to support decision-making, designing better policies through stakeholder engagement, and anticipating future needs (D4.1). This is relevant for LL cities as well as for replicator cities. Replicator cities can learn from governance innovation experiences and practices tested in the LL cities through positive examples, although context specific, and from barriers and challenges that LL cities faced when trying to plan and/or implement innovative governance measures.

In D4.1 a Governance Innovation Assessment Framework was developed (Figure 3). The framework includes six dimensions: *policy and regulations, stakeholders, resource mobilisation, market and customers, legitimacy,* and *entrepreneurial experimentation.* Along with these aspects, the role of public organisations (e.g., municipality) in visioning, facilitating, supporting, amplifying, and guarding of governance innovation, is also assessed.

Dimension	Main questions related to the dimension	Examples, stories, relations to the test sites
1. Policy and regulations	What are the policy and regulatory constraints?	At what level? Who "owns" the question?
2. Stakeholders	Which stakeholders do we need to involve?	Are there conflicts of interest between stakeholders?
3. Resource mobilisation	What resources are needed to implement the test sites?	Financial resources? Relational resources? Knowledge? Mobilisation capacity?
4. Market and customers	What are the potential customers and market for the measure?	Is there a market? What kind of business model is suitable?
5. Legitimacy	How do we gain legitimacy and support for the test site?	Is the test site seen as adding value/solving a problem?
6. Entrepreneurial experimentation	How do we create, select and scale solutions?	What issue is being solved? What value is added?

Figure 3 - Governance Innovation Assessment Framework (developed in D4.1)

This framework has been used as a guide during interviews, analysis and interaction with the LLs. All of the six dimensions are necessary for successful innovation but will be of different importance in different situations. In collaborative innovation, different actors can enable success in different dimensions. The dimensions do not exist in isolation, so when working with one of the dimensions another one can be affected. In the interviews, the main focus has been on dimensions that enable or hinder progress. This is also addressed in the chapter on *Governance scenarios for upscaling, replication, and transferability* where different dimensions are of importance in in different scenarios.

4. Governance Innovation: solutions in MOVE21

In this chapter we present the interim results regarding governance innovation related activities for the three Living Lab Cities of Oslo, Gothenburg, and Hamburg. The chapter first describes, for each Living Lab, insights on the progress made so far (from January 2022 until October 2023); further, the reasons behind the most successful **measures** and activities as well as less successful ones according to the LL cities are presented in an overarching manner with the aim to identify enabling and hindering factors for governance innovation in a respective city.

4.1 Oslo

Oslo started with establishing three test sites in MOVE21: two in the central Oslo area (the **Zero-Emission Zone**, and **Filipstad**) and one in an urban area in Viken County (**Ski station**). Since then, the emphasis has shifted from working with geographic test sites to working with concepts that aim to be scalable and replicable. Key stakeholders include the City of Oslo, RUTER, Transport Economics Institute, ICT Norway, MIXMOVE, Urban Sharing and Viken County Municipality. Oslo has four pilots which face several challenges during the implementation stage:

- **Mobility on demand for people and freight ("the Pink busses")** – The Ruter mobility-on-demand service for seniors (R-MODS) uses a fleet of small buses for transporting people. These buses will now also collect parcels/packages that customers have bought/ordered in a shopping centre. The goods are consolidated to make sure that cargo can travel together with people. The consolidated cargo is picked up by on-demand buses in circulation. The shopping centre is positive to the concept as well as the stores which deliver goods to the busses. One of the challenges is in the contracts with transport companies through Ruter and that are already in place. These contracts are about passenger transport, not goods transport, and for example do not allow the drivers to leave the bus.
- **Integration of micro mobility with public transport** – The pilot is based on a joint digital interface and has the core idea to integrate functionalities from existing micro-mobility apps into partner apps such as a public transport app (electric scooters, together with rental bikes, flexible tickets etc). The idea is to make it possible for users to rent a kick-bike, or a bike on the same ticket as bus, train and other public transport etc, moving from individual modes of transport to mobility as a service (MaaS). There are difficulties with GDPR regulations, tendering and procurement rules, finding the main responsible actor and the fact that actors who provide micro-mobility solutions today want to keep their own apps with the motivation that users need to have the freedom of choice.
- **Emission-free goods transport in Oslo** – Pending a car-free city centre in Oslo, the pilot will create a neutral consolidation centre to reduce traffic and emissions from urban logistics. The original idea was to have one fossil free delivery actor in the area instead of several big ones (e.g., DB Schenker, DHL, Posten). The idea was that instead of three separate logistics hubs, these companies would share one. The Oslo LL has moved away from this idea, as one of the challenges was to persuade three different competing companies to share infrastructure. Another challenge was the location and permission to use the land from the landowner who sets certain conditions. The goal of the City of Oslo is to have no fossil fuel vehicles of any kind in the city centre. This ambition creates a precondition and a regulatory context for implementation of some measures within the project in Oslo LL.
- **Mobility hub network** – The pilot promotes shared mobility and micro-mobility in a social-economically weaker area further away from the city centre where not many people own a car.

Due to the landscape, micro-mobility within the area is limited. The goal is to connect the area across the valley and establish mobility hubs to cover the mobility needs and thus reduce the need of owning private cars as a side effect. One of the challenges is to combine private and public actors so that they do not compete with each other, another is how to pick actors to collaborate with since many would like to collaborate with the City of Oslo.

4.1.1 Description of the progress in Oslo

Description of the progress in Oslo will be focused on one concept that was chosen by the informants to report on during interviews and where most considerable progress has been made so far: **goods transport consolidation hub.** The conclusions are based not only on this pilot but more broadly on the state of the art reported for other pilots as well (the data was collected in spring 2023).

Emission-free **goods transport consolidation hub** is used here as an example of the progress in implementation made until October 2023. When implementing this measure, the LL searched for inspiration from other cities outside MOVE21, such as Antwerp and Lisbon, but through contacts established as part of MOVE21. This led to a decision to change the initial target group for this measure from logistic firms to shippers.

Space and land use has become a crucial question for implementation of the solution. Initially, the LL had been looking at three locations, did not succeed in any of them, and ended up at a private location and land. This could have been investigated in advance and predicted earlier during the planning stage as part of LL operations.

The most significant change has been the change of the target group for this measure. The LL started talking to the logistic firms, but received very little response, and had to think over and change the target towards the shippers and receivers of the goods (that is both ends of the value chain). Thus, the approach has been changed and led to better response from the actors and now the City of Oslo is hoping to sign collaboration agreements. This change of target group might have created more work and consumed extra time, but according to our informants, it was worth walking that extra mile to create better chances to sign agreements with the actors. However, as of October 2023 no contracts have been signed yet. Nonetheless, the actors want to be part of the tested solution, but at the same time, they show caution in taking risks and consolidating with other (competing) actors within the logistic sector. Therefore, it is important to keep a continuous dialogue with different companies, also targeting the right people with a clear mandate to make decisions and take risks.

4.1.2 Enabling factors for governance innovation

The main enabling factors fall under different elements in the governance assessment framework and are presented below.

4.1.2.1 Policy and regulation

Regulations should not be seen solely as a limitation or a hinder to innovation. Rather, some regulations might stimulate the development of alternative, more sustainable innovative solutions and business arrangements. Providing cities with more decision-making power over local regulations can be seen as a potentially powerful tool to steer and stimulate alternative, sustainable and innovative local logistic and mobility solutions.

4.1.2.2 Stakeholders and Market and customers

The municipality has a role to play in stimulating private companies to choose shared logistic terminals for example through steering municipal deliveries of goods (that the municipality has control over) in a more sustainable way setting up certain regulations (e.g., types of engines on delivery vehicles, types of transport etc) since this is a hypothesis being tested in MOVE21. At the same time, it is important to keep in mind that the municipality does not have the power to simply demand certain choices from private actors, it may only provide prerequisites and stimulative preconditions for a long-term change in choices and behaviour of private actors.

4.1.2.3 Legitimacy

It is important to gain legitimacy for implementation of new measures. For example, in order to gain legitimacy with other actors, the Mobility hub network pilot has run surveys among users in the area, involved local residents and has a developed communication plan. It is further important to ensure that the suggested solutions are relevant for intended users. At the same time, one needs to be aware of not promising users too much to avoid creating ungrounded expectations which might lead to tensions and conflicts in the future when the project and the tested solution end.

Regarding legitimacy for successful implementation of innovative solutions, in case of the shared logistic hub (Samlastningsterminal) a reflection has been articulated in interviews that it is easier to get sceptical private actors and the public on board when they are part of a co-creation process with the municipality. This was referred to as “popular legitimacy”. This refers to, e.g., when the municipality is not an owner of the solution but *one of* the actors (“transporter”, facilitator) that participates on more equal grounds. This way the City administration has more trust among the private actors and the public to the processes related to decision making, and occasional power imbalances are partly mitigated. Through co-creation and broader collaboration more effective and more accepted solutions may be created.

4.1.2.4 Resource mobilisation and Entrepreneurial experimentation

The co-creation-based decision making may then be contrasted by top-down regulations from the City of Oslo, which are also part of planning routine. This type of steering was referred to as “unpopular legitimacy” of the municipality has a negative connotation and refers to legitimacy that is gained through restrictions, regulations and steering that happens without broader consultation. This type of legitimacy highlights power inequalities among the participating actors where the municipality is the most powerful actor and decision maker that has the power to enforce decisions and set the rules. Although, co-creation based and horizontal legitimacy might be seen as more democratic and inclusive, both types of legitimacy form a factor that stimulates successful implementation of innovative solutions.

It is also seen as important for the measures to succeed to articulate the City’s vision where the suggested solution fits, to create a context of other actors to understand. In doing so one needs to avoid pre-set solutions before going into a broader discussion with other actors, not to exclude actors who might have other visions and goals than the municipality.

Another important precondition named by the Oslo LL is that one needs to have the courage to work across and over organisational boundaries and have mandate and trust from one’s managers in doing so. Organisational barriers, e.g., in form of internal rules, structures and culture constantly appear and may slow down the innovative work (“the municipality can be a barrier itself”, “silo-thinking”). Through MOVE21 activities external collaboration between the City of Oslo and other actors has been encouraged, which led to communication and dialogues that did not happen before and that have given valuable experiences and knowledge to the City administration. For example, MOVE21 activities enabled and encouraged specific agencies such as the Agency for Urban Development to talk to and engage with private companies in mobility and logistics in ways they have never done before. Another example is the discussion of how the City of Oslo collaborates with external actors, e.g., with industry, within the frames of innovative procurement. The question of procurement has always been a sensitive one because of the fear of distortion of open competition. Through MOVE21 that discussion has been put on the map and some steps towards dealing with this question have been taken.

Overall, there is a general agreement among the actors in Oslo LL about the strategies and visions, including the climate budget that City of Oslo has. However, it is known that it is easier to unite different actors around visions that are by nature more generalized and unspecified than agree on the specific ways and means that are needed to reach and fulfil them. Some actors in Oslo LL have different opinions about the ways how to reach the City of Oslo's visions and goals, e.g., the municipality wants one thing, and private actors – another (e.g. fewer vehicles in the city vs. marketing and visibility).

4.1.3 Hindering factors for governance innovation

At the stage of establishment of the test sites and in the beginning of the pilot period (between January 2022 and March 2023) several barriers to governance innovation were identified by Oslo LL. The factors fall under different elements in the governance assessment framework.

4.1.3.1 Policy and regulation and Resource mobilisation

Some barriers related to policy and regulatory constraints, such as local municipal regulations. For example, there are municipal limitations on how many electric scooters are allowed in the city (max 8000). There is also a regulation about bike sharing and the number of shared cars allowed in the city centre, which is regulated through the number of available parking spaces, among others. In many cases the regulations to take into account are multiple and difficult to harmonize, which adds to the overall complexity of the tasks.

For example, in case of shared logistic terminal/goods consolidation hub, regulations play a role in terms of what company delivers which goods to what areas, parking restrictions also apply for goods vehicles of certain modification which also affects a logistics terminal (*Samlastningspunkt i Filipstad* measure).

The case of a shared city logistics terminal (*Emission free goods transport consolidation hub*) provides an example where difficulties in implementation of innovative solutions became visible over the summer 2023. For example, in terms of regulations of space, some informants pointed out that the City of Oslo does not have a *comprehensive* strategic plan for regulating urban logistics. This is in contrast to public transport and micro-mobility where the city has a lot of knowledge and capacity on strategic and more systematic level. Another difficulty is that most instruments to regulate logistics are on the national level, not local level.

During the implementation stage, some new solutions needed to be created by the City administration, such as, pick up and drop off points for goods. Such solutions also required regulation of space, which turned out to be a tough and lengthy process, e.g., it could take four-five months to change the regulation for a specific location, which, in the timeframe of the project, can become a hinder especially if the goal is to establish a long-lasting solution.

Another important aspect is timing, especially if public consultations are involved, as municipal decision-making processes are formalised and often demand political decisions that take time. It is, therefore, important to communicate, ask for and provide feedback from/to actors well in advance. Overall, it can take long time to set up and implement innovations even when they have proven to be robust and successful as pilots.

4.1.3.2 Stakeholders and Legitimacy

In case of goods transport consolidation hub, the importance of communication was emphasised in interviews. As the solution involved multiple actors, it soon became clear that different actors viewed the hub, its physical characteristics, how it should look like, and its' purpose, differently. This leads to the conclusion that the existing preconceptions of how the solution may look like may hinder innovation and implementation.

Relations with relevant actors are also key if we are to achieve progress in these questions. However, there is always lack of time and resources to develop these relations further. It is also important to contact actors and representatives on the right level of mandate. It should be "right person in right time" to be able to create strong relations to ensure participation and timely decision making.

4.1.3.3 Entrepreneurial experimentation

Another aspect that is seen as problematic when implementing innovative solutions is organisational culture of public organisations. In addition to long process and decision times, decision makers on different levels expect tangible (measurable and concrete) results in public organisations. Such results should often be predicted in advance of the project completion. This poses a difficulty, because in innovative projects that strive to test and implement innovative/new solutions, it is often not possible to foresee the concrete outcome or how such an outcome will look like as the conditions of the implementation of measures constantly change (e.g., the political situation, constellation of actors, difficulties in finding partners, slow decision making, hindering regulations, etc.). Besides, silo-thinking among the different departments and agencies in the City administration itself may be a hinder to implementation of innovative solutions and to steering of the pilots.

4.1.4 Conclusions and insights, recommendations

Taken together, MOVE21 governance related activities, such as discussions of regulations, intensified and broadened collaboration, co-creation activities with a broader array of actors e.g., outside of the municipality, has already given some rich experiences and learnings to the municipality, created new contacts and networks. New ways of collaboration with the different actors, involvement of broader actor groups in discussions have been noted as innovative in a sense that new ways of communicating and working together, process-wise have been created. The City is actively working with external actors, often on the external actors' initiative, who would like to contribute to the pilots within Oslo LL, which is very positive.

However, several difficulties for implementation of innovative solutions through governance and regulations have also been identified. Some of which persist since the establishment phase of the pilots. For example, the formulation of long-term oriented *business models* is one of the most challenging questions in the project. For innovative solutions to have a long-lasting effect beyond the project's lifetime, there is a need to find long term-oriented business models. Such business models are central for creating preconditions for long-lasting solutions and relations in the pilots.

When the municipality is testing or piloting some innovative solutions, nudging of the actors towards the desirable choices may become relevant. Nudging in testing and piloting may give a better and systematic account of what roles public and private actors have and serve as a ground to create better tailored regulations for different target groups.

One suggestion in regard to broader networking and collaboration for Oslo LL that one might need to create a network for logistic firms in the city, in order to be able to create a meaningful dialogue with them in advance. Another suggestion would be not to focus on one group of actors when setting up logistic solutions. Rather, the recommendation is to start broader and include all groups of actors, the whole value chain, and be open to different actor constellations. This way the possibility for innovative and new constellations that might give (unexpected) fruitful collaboration is higher and the risks of not having the right group of actors onboard is minimized. In addition, transparency and communication throughout the process is key for establishing contacts with broader array of actor groups. Another suggestion is to try to focus on the receiver of goods first, not on shippers. The receiver can change the location of a good's final destination and this may be a "game changer" for implementation of new logistic solutions.

It is seen as important to give more thought to how *space* is used when planning the implementation of the measures. This includes both what type of land to use, who the owner of the land is (City of Oslo or private landowners), and how much space will be needed for implementation. The Oslo LL experience calls to consider the role of private landowners when planning the location for solutions. It is underestimated how much private landowners can (positively) affect the outcome. Parts of the City administration can work closer with private landowners, plan 5-10 years ahead together with them when setting up physical logistic solutions and offering to test new solutions.

Another suggestion is to consider the possibility to use smaller spaces for these types of solutions, trying to overcome the preconceptions that goods hubs should be large. This change of mind might lead to new solutions and opportunities in the cities. The desirable outcome would be the formulation of a strategic approach to several different hubs in different locations throughout the city so that the actors involved would start to see the value of this solution.

4.2 Gothenburg

Gothenburg started with establishing three test sites in MOVE21: **Nordstan,** a dense urban, well-developed area in the city centre; the **Klippan/Jaegerdorff area,** an area in the sub-central parts of town with scattered mobility services with potential for an integrated hub and **Lindholmen,** and an area on the island of Hisingen which has been heavily developed for the last two-three decades. Dedicated working groups per test site were established to organise the process in each test site location. In each of the three test sites, Gothenburg Living Lab developed different innovative concepts consisting of several measures was developed:

- **Nordstan**, pilot **Zero emission micro-mobility hub** with multiple functions where different private and public actors collaborate and share risks, costs, spaces, and services. The pilot consists of three different solutions. Solution 1: **Front-end micro-mobility hotel** where local micro-mobility and micro-logistics companies are sharing common space in centrally located shopping mall. Solution 2: **Craftsmen and service providers hub**. Local service providing companies (e.g., handymen window cleaners, electricians) are sharing a fleet of micro-mobility vehicles in a centrally located shopping mall. Solution 3: **Goods consolidation centre with cargo bike last-mile deliveries.** An existing goods consolidation centre is integrated with the other solutions and further developed.

- **Klippan/Jaegerdorff area**, pilot **Park and bike node.** Solution 1: Third party **integration of parking app and public bike sharing app** and possibly other shared micro mobility operators that will make it possible to buy a ride with public rental bikes through the parking app, improving conditions for multimodal travel. Solution 2: **Park and bike** with a new station for the public bike-sharing system inaugurated in April 2023. A park and bike pilot to encourage multimodality by a combined offer to parking costumers are under development. Solution 3: **Improvements for pedestrians, bicycles and shared micro mobility** in the test site area with measures on guidance, wayfinding and visibility, reallocation of parking spaces to a hub space with e-scooter parking and information sign and establishment of a new cargo bike sharing system and establishment of a new cargo bike sharing system. Some of these are already in place.

- **Lindholmen**, the pilot **Cargo-waste co-freight.** The pilot builds upon existing consolidated waste-freight circuit with reverse logistics. Solution: **Consolidation through parcel boxes** – incoming and outgoing deliveries, installation of parcel boxes. **Reverse logistics** (cargo/waste co-freight) at Lindholmen by extending the existing cargo/waste co-freight system, **Lindholmsleveransen**, to make use of parcel boxes with first pilot started in January 2022. Feasibility study for new solutions has been started, with focus on how to make transportation more effective, minimise it, and electrify transportation to and from properties in the Lindholmen area. A preliminary investigation on the use of inner water ways for waste management incorporated with existing consolidation waste-freight circuit has been done.

4.2.1 Description of the progress in Gothenburg

The development of the test sites in Gothenburg has resulted in efforts to combine multiple interventions at the three sites, although focal areas vary across the sites. This section provides a more detailed discussion of the test site Klippan/Jaegerdorf.

The Park and Bike pilot at Klippan/Jaegerdorf is so far one of the most developed pilots in the Gothenburg LL. The test site and the related solutions have been inaugurated and operational since April 2023. From the City administration's point of view the development and use of the concept is a success. During summer the City of Gothenburg made an analysis of the use of the pilot, looking at the micro-mobility use (e-scooters, rental bikes). Since installation, the use has gone up to a rather high level. People are using the bike rental station, and more people are parking their e-scooters next to the rental bike station, although this was not planned. Rather, this use indicates that the citizens organized themselves and perceive the area as a node for micro-mobility.

Prior to devising the implemented solution, emphasis was placed on identifying and aligning goals, responsibilities, and resources as well as mapping relevant stakeholders. The implementation of solutions went rather smooth because the City administration and the parking company had reached a consensus of what they wanted to test, where and how. There were no disagreements between the City administration and the parking company on whose land the pilot is being tested. Collaboration and dialogue helped to make the process smoother. Analyzed user data shows that the shared bike rental station is very well used, both as departure and arrival point. The user data from e-scooter providers shows that the micro-mobility hub area, consisting of reallocated parking spaces, is used as a departure point, but few users end their trips in the hub space. In the future, the City administration considers to make an adjustment and create a dedicated e-scooter parking next to the rental bike station. An evaluation is ongoing on the measures. An on-site interview survey with the citizens/users will be conducted on four different points in the site to see how citizens/users perceive the tested solutions and needs for further development.

The latest assessment (interview survey with citizens made in collaboration with WP3, workshops, citizen dialogue) showed that there is a feeling of perceived unsafety in the area, with respondents mentioning aspects such as darkness, heavy traffic, low foot traffic, and intimidating individuals. The test site working group considers creating more measures to promote livability of the place, considering adding art, improving lighting to address not only micro-mobility but the overall experience of the place.

More measures are being currently considered to target citizens who park their e-scooters in the area. Overall, the City administration considers the test site a success, as it does not want to encourage too much parking behavior in central areas.

The development of the Park and Bike node in Klippan developed in harmony with current local policies and regulations, with the Environment and Climate Strategic Programme 2030 and The Traffic Strategy as guiding policies.

When designing the hub space, the Gothenburg LL observed a lack of a universally agreed and harmonized concept for shared micro-mobility space in Gothenburg. While there were guidelines, technical guidelines and recommendations regarding, for example, bicycle parking, there was a lack of cohesive guidelines for spaces for different kinds of shared micro-mobility. During MOVE21 a concept for shared micro-mobility has been developed in the City of Gothenburg, and the rollout of this is commencing during 2024.

The experiences from the test site Klippan/Jaegerdorff have also been important for the politically initiated work on revising the City's parking policy, with a focus on reducing the footprint of parking spaces while ensuring good accessibility, for instance by relocating ground-level parking to parking garages and strategic parking nodes. The draft for a new parking policy includes geographical guidelines for mobility hubs.

4.2.2 Enabling factors for governance innovation

Enabling factors for governance innovation are presented under the relevant elements of the governance innovation framework.

4.2.2.1 Policy and regulation

Efforts towards the development of the internal capacity of the municipality to manage and realise development and innovation projects is seen as one of the enabling factors for governance innovation. One has “to dare” in municipal decision-making: dare to reinterpret rules and to challenge formal procedures that are not adequate to accommodate the innovative solutions that need to be tested in the project. Such capacities are often connected to specific persons within the municipality. It is therefore important for the project development to identify such key active civil servants who might act as catalysts of innovation.

4.2.2.2 Stakeholders and Resource mobilisation

There is a need for broad collaboration with different actors in areas where the municipality goes in as a facilitator and as a regulatory body. Actors and their roles differ in every concept. For example, in case of Nordstan, the majority of actors are private and one public actor from the municipality is rather a facilitator of the process. In Lindholmen, Renova owns solutions for incoming/outgoing transportation of waste and could perhaps be responsible for other processes within the pilot. Actors involved need to feel ownership over processes and take active part in shaping the solutions. At the same time transparency is central - who makes decisions and on what grounds. Engagement of a broad spectrum of actors, including big ones and continuous collaboration, communication and transparency between them and between the municipality and the actors is key for implementation of different solutions.

4.2.2.3 Legitimacy

An enabling factor for governance innovation is willingness: there is an interest and openness to develop the City's policies and translate experiences from innovation projects and needs identified through other means. This can be seen as the city utilizes experiences from MOVE21 in development of concept for shared micro-mobility and parking policy.

4.2.2.4 Entrepreneurial experimentation

In a preparatory stage, the Task Force (TF) for Gothenburg Living Lab has done a comprehensive mapping of relevant stakeholders and actors to be involved on both ICCP level and per test site. Two test-site specific workshop series were conducted, the first workshop organised per test site focusing on needs and challenges, the second workshop on solutions to pilot. In the workshop series, both project partners and other identified stakeholders participated. The solution development is an iterative process in which the concept is co-created by different stakeholders, as actors and concepts were not pre-determined. Different solutions, and combinations of these in different pilots were explored early on in the project. Possible hindering and enabling factors were identified. The concepts implemented within the Gothenburg LL are targeted for the specific conditions at each test site, and while the test sites are of different characteristics and, to some extent, with different needs and possibilities, the measures could be of interest at various sites and in different combinations. A dynamic approach has been taken, with the possibility to pilot, replicate, and upscale tweaked solutions.

4.2.3 Hindering factors for governance innovation

Some hindering factors for governance innovation are presented under the relevant elements of the governance innovation framework.

4.2.3.1 Policy and regulation

In the City of Gothenburg, there are explicit policies and strategies setting the direction regarding sustainability and environment, with the Environment and Climate Strategic Programme 2030 and The Traffic Strategy as the primary ones. The identified challenge is mainly related to the interpretation of the policies, where lack of harmonised interpretation by the civil servants may lead to misunderstandings and the exacerbation of detachment between different departments within municipality. Different departments sometimes have to follow different policies and have different and sometimes conflicting goals. It is, therefore, a challenge to make different departments work out a common vision and unite around common understandings of a problem.

Another issue that came up in interviews is that the formal internal and procedural rules in the City administration are sometimes unclear and the instructions sometimes depend on the person the civil servants turn to for advice. This concerns, for example, different permissions, whether they are needed or not for some specific area. This unclarity has been a source of frustration among the civil servants and contributed to higher workload and time spent on bureaucracy.

Another challenge that is specific for Klippan test site is that in the longer time frame there will be other uses for this area as planned in the City Master Plan and in the detailed plan for the area. The challenge within MOVE21 was to create measures that can be implemented quickly, but, according to the agreement, it should have also been rather simple to remove them in five years-time. The city will have to tweak the measures that are already in place or remove them if they do not work.

4.2.3.2 Stakeholders and Resource mobilisation

The City of Gothenburg is the main actor and decision maker in all three test sites. The City administration acts as facilitator and interest-broker, while ownership and executive actors vary. The way how the City of Gothenburg applies local regulations may enable and stimulate development and establishment of innovative solutions as well as hinder them, e.g., regulations and rules for loading/unloading zones, emission zones etc. There is a need to develop management solutions and collaborative practices *within* the municipality and *between* the municipality and other external actors.

After setting up and running the different solutions in Klippan test site in April 2023, it is clear that some of the barriers persist: internal regulations, their plurality and formality of procedures put an extra pressure on implementation of solutions. The informants note that communication with contractors and procurement was surprisingly difficult. The internal municipal procedures were difficult, even for simple services. Unclear procedures and multiple levels of decision making, together with public procurement procedures were mentioned as considerable hinders that one needs to consider when planning the implementation. Even for small things, e.g., for putting signs in place one needed to have two to three different contracts. Unclear and ineffective procedures slowed down the implementation procedure, hindering upscaling of the solution.

4.2.3.3 Legitimacy and Entrepreneurial experimentation

Development of the internal capacity to collaborate is one of the central focus areas that needs attention. If different actors could collaborate even better, there is a potential to develop good services that can be offered to residents and citizens, business and visitors. Development of better collaboration within the City administration and with external actors is seen as one of the most important issues to be addressed. This means that the different departments within the municipality should strive to have a better and more harmonized understanding of the problems and common goals, trying to overbridge silo-working towards different, often competing goals. Integration and dissemination of knowledge from various networks where the City administration is active back to the line organisation could help boost organisational learning and capacity building. From the policy side, organisational challenge is in the difficulty to remove rules that hinder implementation of innovative solutions or make the use of the hubs' services more difficult for potential users/clients.

Another challenge is to create favourable circumstances for the main actors involved in test sites to feel responsibility and ownership of the innovative solutions and lead the implementation work. Therefore, one of the major challenges is that collaboration with actors is based on project thinking and a short-term planning horizon. There is a risk that as soon as the project ends, collaboration might dissolve as well. The challenge for governance innovation is, therefore, to come up with strategies to make sure that this collaboration lives beyond the project's lifetime. It is a common challenge to transform innovation projects into long-term, maybe even permanent solutions. There is a need to clearly articulate the benefits for participating actors with long-term engagement horizons.

4.2.4 Conclusions and insights, recommendations

Risk identification and analysis is needed to foresee some of the barriers mentioned above, especially the ones related to internal regulations and public procurement procedures. This is because they influence implementation of the measure and upscaling opportunities within the project. At the same time, some reflection is needed around how barriers to implementation are defined, because that might be the way how other actors or departments work. "You do not know when you are supposed to blindly follow the rules and where to innovate or bend them. Would be nice to have a mandate to be able to step aside of them because of innovation, endure some extra administration, and push through" (interviewee, The City of Gothenburg).

Another noteworthy point is that different actors within the City administration and outside it have different understandings of "success" when it comes to implementation of a solution. For example, in the case of Klippan, the involved partners were the municipality and the parking company. The latter viewed success from the use of parking space point of view, whereas the municipality had goals on reduced use of private cars in the city. The different ways of viewing success influence the assessment and the evaluation of the measures. Before implementing the measures, the city could have asked the question "what and how will we measure"? "What do we perceive as successful"? "Is this measure successful"? "What are the indicators of success for all the actors involved in implementation of the measure"? "What are the possible ways of measuring success"?

Lessons learned include the necessity to identify necessary resources in advance (time and money, capacity), and to identify what resources will be needed to implement the solutions.

Furthermore, agreeing on testing something, e.g., a new solution, or implementing a new measure, entails the ability to adapt and be flexible. All the actors should agree that it is acceptable not to have a perfect solution, accept uncertain timeframes, be prepared that the timeframe might change, and the costs might be difficult to identify in the beginning, especially if you are trying to implement something that you have never procured before. Such processes demand a good understanding of the organization, its structure and formal procedures. It is not always possible to know what certain things are going to cost. Therefore, dealing with uncertainty is important to plan for.

The choice of physical location and landowner is also important when planning implementation of the solutions. Physical space and landowner type are basic but important preconditions to take into account because different rules and regulations may apply. These preconditions need to be checked in advance, before the implementation starts.

There needs to be a broader understanding among the actors that the way things work for some actors, that are part of the routine, might pose difficulties for other actors, even if the process might be completely legitimate and formally correct. This poses a difficulty that is related to innovation projects because there is uncertainty and lack of knowledge about the relevant processes and procedures across organizations and departments. There is no fixed timeframe, and it is often not possible to predict specific costs during the implementation phase (it may also be unknown in what form the solution might be implemented and to what extent).

Civil servants and practitioners need to be flexible and accept these uncertainties that characterize innovation projects where new solutions are tested. It is difficult to predict what procedures might have higher priority because one is expected to follow the formal rules and meet the formal expectations.

Finally, in one interview it was articulated that it would be good to have a mandate to make a decision when one needs to strictly follow the rules and procedures, or when it is not necessary and one might step aside a little. "It requires a lot of stamina to push through and be fine with the time and energy that following the formal procedures are demanding for innovation projects" (Interviewee, Gothenburg LL).

4.3 Hamburg

Hamburg is working on three pilots in MOVE21. The City of Hamburg is the main regulator and decision maker for the Living Lab and its pilots. Hamburg has three initial pilots:

- **Multifunctional neighbourhood hubs:** In order to optimise the use of existing areas, reduce traffic, encourage the use of active modes of transport and leverage user awareness, the Hamburg LL is conceptualising multifunctional 'neighbourhood hubs'. These hubs will include uses and offers in the fields of logistics, mobility of people and, where possible, social/ cultural offers.

  The first neighbourhood hub opened in February 2023. Further hub pilots are currently being developed and coordinated for the test sites Kaltenkircher Platz and Harkortstraße. Additional ones may follow.

  Measures and offers in the neighbourhood hub Holstenstraße include: a multi-user depot for freight with shared facilities and infrastructure by different logistic companies; distribution of clothing, food and other goods of daily need; consultation services (health, finances, social support etc.); language courses. Innovative aspects include the multi-functional location with uses of different sectors; a new organisational approach for the micro depots with various logistic companies sharing space and facilities; new business models; a new contract structure between tenant (District of Altona), hub operator (DB) and users (logistic and socio-cultural).

- **Combined transport of people and goods:** This pilot activity aims to analyse and test how to transport people and goods in the same vehicle, e.g. in on demand shuttles, mini-busses or other public transport vehicles. A test site for a pilot implementation is Rissen in the Western part of the District of Altona and the bus line 388 operated by Verkehrsbetriebe Hamburg-Holstein, the public bus company. Following first exploratory meetings with local stakeholders, a concept is currently under development and will iteratively be concretized together with local stakeholders. Implementation of a first phase started in October 2023.

- **Interhub traffic:** Currently, all logistic service providers distribute and pick-up their deliveries individually to and from depots. A pilot activity on offering transport between different hubs in a provider-neutral way is envisaged, possibly in combination with the above-mentioned concepts. It is expected that this test activity can show reduction potential for traffic and emissions, while at the same time being a viable business model for logistic companies as transport costs will be reduced.

  The multifunctional neighbourhood hub in **Holstenstrasse** is located in an area with a higher share in low-income households than the average in the City of Hamburg. With rising inflation and energy prices residents may perceive other issues about the organisation of their daily lives as more pressing than participating in activities organised in the context of pilot implementation. The TF is aware of the concerns of the local residents and has included social offers in the neighbourhood hubs, such as advisory services and a "social kiosk" where people in need can obtain clothes and food donations as well as other everyday consumer goods.

  The following measures are included in this test site: Logistic micro hub - emission free cargo bike transport of goods as a solution for the last mile logistics. Here, a new concept for spatial division of spaces in logistic area of the hub is offered. Users have small individual areas and share a large handling zone. The use of the handling zone will be organised according to the operation times of the users. Combination of logistic users with cargo bikes from different business areas includes parcel delivery services and delivery service for other goods. A new concept for spatial division of spaces in social area of the hub is offered. Users that offer consultation or tutoring services will use the same room and equipment.

In **Kaltenkircher Platz** the following measures are planned: Car sharing station, improvement of cycling infrastructure (e.g., installation of bicycle racks). A reserved truck charge will be offered and will be based on prioritisation of on-demand, commercial and logistic trucks for the reservation of e-charging points in the public parking space. Installation of reservable charging infrastructure in a public parking space; Battery as a service - will include placement of charging infrastructure (charging cabinet) for replaceable batteries for e-bikes or other micro e-vehicles for commercial users in public open space operated by commercial provider. Multi-functional hub for freight and people mobility will be based on the idea of sharing resources and knowledge in planning and permission processes and technical implementations between different users of the hub.

The Hamburg LL has developed a phase model and decided to focus on piloting the neighbourhood hubs first. The building in Holstenstraße is available for interim use, therefore, priority has been given to this test site. In the next project phases, the Hamburg LL will develop additional hub concepts for other test sites with different characteristics and combinations of measures in order to collect additional experiences.

4.3.1 Description of the progress in Hamburg

This section focuses on the progress made in one site, the Neighbourhood Hub Holstenstraße. The site was chosen by the interviewees as the site where most considerable progress has been reached.

The test site at the Neighbourhood Hub Holstenstraße was the first site that Hamburg LL brought into operation. It started in February 2023 and has been operational ever since. The test site leaders were also able to extend the renting contract which had been signed with the housing cooperative. The interviewees report that in the beginning, it was only possible to agree on the contract until the end of August 2023, so the operation phase would be very short. But it was later possible to extend the renting contract until the end of the project in 2025. Therefore, the test site has got much better planning horizon and perspective. The users too can now extend their plans also for their use of the building. However, the use of the building will be extended for social uses, and not for the logistic hub (as for now). The test site leaders see some social programmes appearing on the site, they also have a social kiosk where food is distributed to the people in need. The number of people coming there on weekends is increasing (from 100 to 350). Different social organisations provide social consultations to the people and use the hub for space, as they do not have an own head office.

The concept of combined mobility, logistic and social services is in place. The social part goes well but the mobility part is still under development. The bicycle racks are put up, but not much is happening besides this. The municipality sees that the idea to combine mobility and logistics aspects with social uses works and it is willing to try to develop mobility aspects more. However, the location of the property might be in the wrong neighbourhood for that kind of mobility (biking).

Experiences from the site suggest that the location, the building used for the implementation of the measures, and the opportunities to refurbish and adapt the property for the project's purposes fall under the regulations that the LL team did not foresee. This is partly because the LL team is transport and mobility oriented and the regulations were more related to architecture and construction (other area of expertise).

Quite some changes had to be made during the planning and concept phase, and in the actual rebuilding and design phase of the location. This had to do with what logistic solutions the city preferred to have there and with what was actually possible to bring into the building according to formal regulations. Refurbishing and purpose-tailored physical adjustment of the location was new for the Mobility department that was responsible for the implementation.

The logistic companies were rather strict with what their requirements were with regards to individual spots and in the app. The test site has two large parcel delivery companies that are involved and they were eager to have fences built up in the building due to safety and business reasons. These aspects were new to the test site leaders who had to deal with these new requirements on the way.

The multifunctional neighbourhood hub seems to develop in harmony with current local policies and regulations and no immediate need has been identified for major changes in the current regulations in order to proceed with the concept. Some agreements have also been reached to enable the pilot, e.g., renting contracts signed, permission for change of use (on the district level), operating agreements and user contracts have been signed. A stakeholder mapping has been conducted in early phases of the project which has served as a basis for the involvement of stakeholders. Additional stakeholders are being involved as relevant.

The informants did not experience any major constraints with transport, mobility or logistics regulations, rather they had experience with building regulations, with building permissions (e.g., the change in use of buildings). This exemplifies the challenge to work across different agencies and departments in the city when setting up and implementing innovative solutions in mobility and logistics. More specifically, the need for such collaboration has to be predicted in advance – which is not always possible and easy. In one case, one innovative concept the Living Lab wanted to test turned out to be more time consuming and more complicated than the LL team estimated from the beginning. Time and additional costs are among the hinders to implement the pilots – e.g., finding an architect, investing extra time and money. However, these constraints are seen as normal and not as major obstacles for the pilots. For buildings available for an interim period only, lengthy permission processes can significantly shorten the time available for use or even make an interim use obsolete.

Due to sharing the same space, the different logistic companies involved in the hub, who are competitors, started talking with each other about sharing e.g., bikes, which is a something quite new and an outcome that may be seen as innovation in practice.

4.3.2 Enabling factors for governance innovation

The main enabling factors for governance innovation in Hamburg are presented in relation to the different elements of the Governance Assessment Framework.

4.3.2.1 Stakeholders and Resource mobilisation

Logistic companies needed the space so much that they had to accept the conditions suggested by the TF of the pilot, although with some exceptions, such as the fences around each company's spot (security question) and protection of personal information on the parcels (business related demand). It is a benefit for the TF as this gives them possibilities to set conditions for the pilot. For social actors the preconditions are different. They do not compete as the logistic companies do, but the social actors/networks bring other companies and organisations in very proactively. They are different from private companies, in terms of how they work with other organisations, since they are not about making profits. Instead, different social organisations are equally eager to be part of the project.

All resources that are possible to mobilise for implementation of the measures are important: personnel capacity to deal with complexity, resources to engage with different parts of administrations and work across administrations and departments, and resources to engage different actors. Relational aspects and skills (networking) are necessary for such a cross-cutting project. Resources such as time and money for unforeseen difficulties are also something that needs to be budgeted for in advance.

Personal capacity relates to the key actors that need to be in place in order to realize the pilot. In the end it is also about the “right” people who are leading and taking responsibility. Personal relations and capacities make it possible to navigate administrative hierarchies more efficiently; personal relations are therefore an important resource.

4.3.2.2 Market and customer

The Task Force for the Hamburg LL hopes that there will be market-based conditions present for long-term sustainment. For the neighbourhood hub in Holstenstraße, the Task Force aims at reducing the dependence from MOVE21 in terms of budget and personnel and has successfully taken steps towards a sustainable business model. Already now, logistic users and other stakeholders, including a foundation, provide financial contributions to the renting and operation costs of the hub.

4.3.2.3 Legitimacy

Actors involved need to feel ownership over processes and take active part in shaping the solutions. At the same time transparency is central - who makes decisions and on what grounds. The aspect of legitimacy is also important as the solutions need to be anchored with the local citizens and involved actors. Legitimacy for the test sites in the Hamburg LL is said to be created through internal collaboration within the City administration and between its different institutions, e.g., Senate Chancellery, ministries and district office. Legitimacy for external actors may be created through their participation in the concept development and the offers provided by the pilot activities which hopefully meet the needs of the residents.

Another type of transparency was literally demanded by the citizens of the neighbourhood where the hub is located. On the one hand, the logistic companies would like to have windows closed so that no one could look inside, on the other hand, it is important for trust building in a quiet residential neighborhood that also the people have an idea of what is happening inside the hub. Transparency is quite important for acceptance in the local environment.

4.3.2.4 Entrepreneurial experimentation

In a preparatory stage, the Task Force for the Hamburg LL did a comprehensive mapping of relevant stakeholders and actors to be involved, e.g., through public activities such as the neighbourhood day, workshops and networking activities, as well as participatory activities to gather ideas and wishes of residents for measures to be implemented, among other. Currently, all the key actors seem to be involved in the pilots (neighbourhood hubs).

The concept development is an iterative process in which the pilot was co-created by different stakeholders, as actors and concepts were not pre-determined. In a preparatory stage the Task Force members had conversations and workshops with various actors. Some of these stakeholders have been further involved in the concrete implementation activities. Preliminarily identified stakeholders have partly suggested additional stakeholder to involve. The City administration is not always the only node of contact among the actors, there are various sets of stakeholders involved who can reach out to other relevant stakeholders from their networks.

4.3.3 Hindering factors for governance innovation

No major constraints have been identified in the Hamburg LL, but some minor hindering factors are presented under the different elements of the Governance Assessment Framework.

4.3.3.1 Policy and regulation

Some barriers with permissions (e.g., the change in use of buildings, architectural and technical solutions) are pointed out as minor hinders that can add to the complexity and require additional time that has not been counted in. Time and additional costs are among the minor hinders to implement the pilots – e.g., finding an architect, finding extra time and money. For buildings available for an interim period only, lengthy permission processes can significantly shorten the time available for use or even make an interim use obsolete. However, these constraints are seen as normal and not as major obstacles for governance innovation.

4.3.3.2 Stakeholders

The Task Force members are trying to reach out to such actors who will provide goods and services, but the sustainable business model is not there yet. The municipality is working proactively to reach such a model joining networks, setting up own meetings and working groups to identify relevant stakeholders and actors who could provide goods and services for the pilot. Sometimes the City is contacted by other external actors who would like to contribute to the pilot and get involved, which is very positive.

4.3.3.3 Resource mobilisation and Market and customers

Capacity of staff, capacity of different parts of administrations, engaging different actors, and relational skills (networking) are important for implementation of innovative and cross-cutting solutions. Personal capacity relates to the key actors that need to be in place in order to realise the pilot. In the end it is also about the “right” people who are leading and taking responsibility. Personal relations and capacities make it possible to navigate administrative hierarchies more efficiently; personal relations are therefore an important resource. Time and resources for unforeseen difficulties also need to be planned for in advance.

One of the difficulties is to allocate the managing actor after the project time runs out. It should be a neutral actor who would not compete with the logistic companies etc. There is also a lack of a proven business model, and the potential market for the mobility and logistic solutions is unclear. The Task Force for the Hamburg LL works towards there being a market, and aims to move towards self-sustaining system and business model when they pull back after the project ends. However, there are plans for the City of Hamburg to continue participation and being an actor but with a different role.

4.3.3.4 Legitimacy and Entrepreneurial experimentation

Another aspect to consider is that there is no common understanding of what a micro-hub is in practice. Therefore, it is more difficult to upscale and implement as there is no formal description of the concept at the desks of the politicians and civil servants in different City departments. They do not know what to expect and how to assess this innovative solution. "For example, it is not listed in the catalogue of special uses for public space and so it is more or less to be negotiated what the fees are and what the conditions are under which you can use that area for that. And this is also something that needs to be put into place (in terms of formal regulations) for the future" (interview with civil servant, Hamburg LL).

Sometimes it is difficult to come up with innovations or to implement innovations when some parties are more involved and committed than others. "One cannot expect that all the involved actors know at once what is being built, especially when it is something new and insufficiently defined, like micro-mobility hubs. But as soon as it has been done once, it should become easier to communicate and explain the ideas and have the permission forms in place. There are examples where this already happened; you just mention the concept and everyone understands what is going to be built and what processes will be involved. But this is still not the case for micro-hubs and for mobility apps too" (ibid.)

4.3.4 Conclusions and insights, recommendations

The analysis shows that proactive and collaborative work with a broad array of actors, attention to communication and dissemination of information about the test sites has been one of the important preconditions for strengthening the legitimacy of the decisions made and overall acceptance of the activities in the test sites (e.g., neighbourhood hub in Holstenstraße). The recommendation to other cities would, therefore, be to plan for proactive collaborative activities well in advance both budget-wise and capacity-wise.

Understanding of the importance of the relations with key actors, building personnel capacity within and across different parts of administrations for working with innovative solutions is important for successful implementation. Relations and networking is necessary for such cross-cutting projects. Personal relations and capacities make possible to avoid the need to go through administrative hierarchies; personal relations are therefore an important resource. However, one needs to be aware that capacity building takes time and may require additional resources and contain some risks that should be planned for well in advance.

Another learning is that Hamburg LL pilots a combination of different uses that have not been seen as particularly practical combinations before. This approach may be seen an innovative as it promotes new ways of working together withing the context of multiple actors, uncertainties and regulatory complexity. This is what is being done in the Hamburg LL with mobility, logistics and social users – combination of different target groups that constitute the innovation. Housing cooperatives in the neighbourhood where the test site is located are interested in social aspects and that makes them more susceptible to other uses too, such as logistics and micro-mobility. The social topic in combination with other topics opens up for other sorts of collaboration and themes. Identification of a broader stakeholder groups in combination with each other may be seen as innovative way of working with stakeholders in mobility and logistic context (mixed use of space).

When navigating the different actors, the following questions are relevant to pose within the City administration: what do we really want to do with the public space? how do we want to use it? From a city perspective, what can we offer? Although basic, such questions might make the strategic work with stakeholder engagement easier, facilitate better anchoring of the decisions and acceptance of the solutions by the involved actors as well as citizens.

Another insight is that in order for the hub to stay and continue its activities in this particular place, it also needs to be accepted by the neighbourhood. Otherwise, the mobility services risk not to be used that much. There is a need to increase the acceptance of the implementation and upscaling among the local residents. Public social acceptance of new solutions needs to be worked with more.

The lack of sustainable business model and unclear market perspectives is one of the major difficulties that the Hamburg LL has to overcome in order to achieve a self-sustaining measure after the project's lifetime.

In terms of regulatory constraints – there have not been any significant issues reported, however, there is evidence that in case of innovative solutions one has to be prepared to act across departments and specific regulations that might not fall within the Task Force team's expertise. Time should be made for harmonization of different regulations and procedures that might be necessary to undertake for the solutions to be implemented.

5. Governance scenarios for upscaling, replication, and transferability

This chapter corresponds to Milestone 4 in MOVE21 but is incorporated in this deliverable due to its close relationship with the above-described governance implications. Here, scenarios are introduced as a way to think about different mobility solutions and analyse their suitability for a specific context, i.e. a city. In this way, a city administration in a *replicator* or *cascade* city can categorise different measures and solutions in a way that makes it easier to decide on their suitability for the city. As part of WP4 Task4.4 cities can be supported in this work, and by working with these scenarios the cities can be more proactive when preparing for upscaling and replication.

5.1 Introduction to scenarios

When developing scenarios, a common approach is to identify a number of variable factors of importance and usually (not always) set them as opposite poles. Depending on the context it can be suitable to set them either as extremes, or as distinctively different values. Below, the two selected factors, *ownership* and *rules and structures*, are set as distinctively different but not extremes. It would, as an example, be unrealistic and therefore of limited value to assume that all rules and structures would be replaced. Conversely, an infinite number of hybrid scenarios could also be imagined.

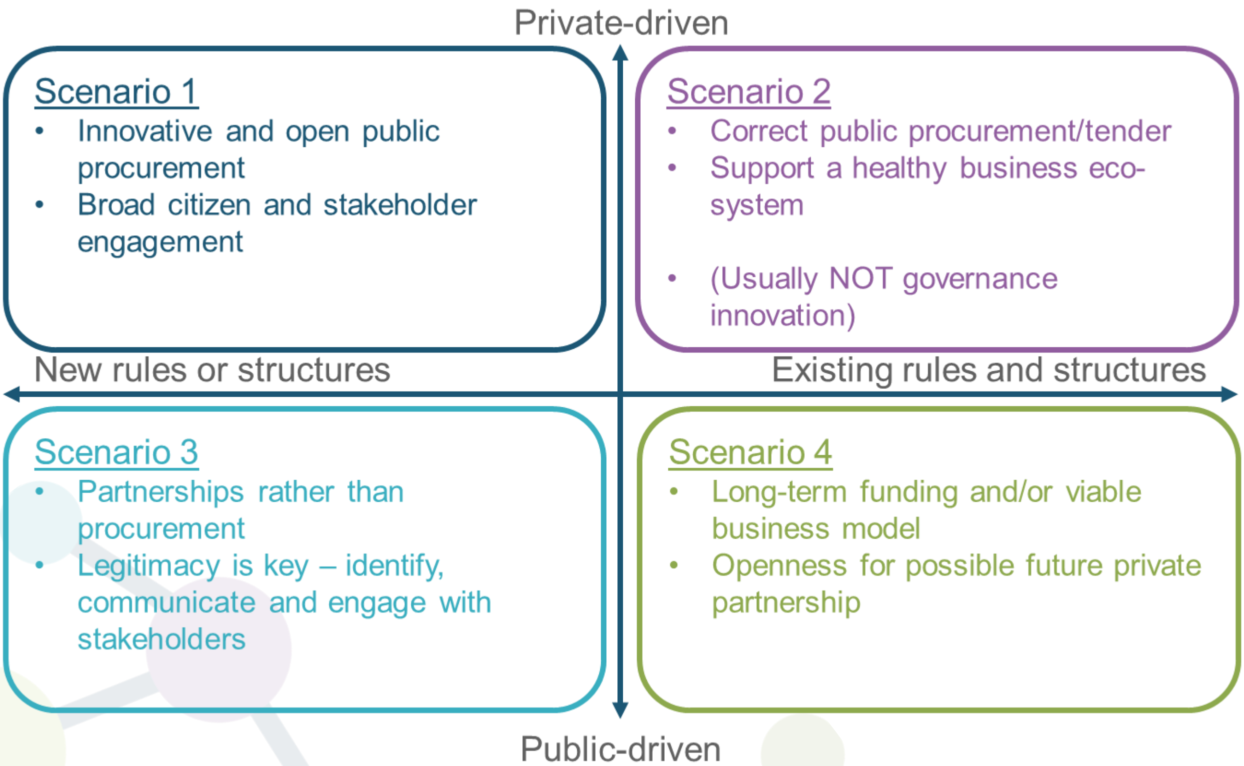

Figure 4 – Scenario matrix with identified governance key success factors.

The scenario development conducted within WP4 uses the Governance Assessment Framework as a guide. One alternative to having two variable factors, that was tested, was to use the six dimensions from the Governance Assessment Framework: *policy and regulations; stakeholders; resource mobilisation; market and customers; legitimacy*; and *entrepreneurial experimentation.* Using the scenario development methodology would have created 64 different scenarios, of limited use to the project. Therefore, the two used variable factors were identified after an analysis of different measures in light of the Assessment Framework. In order to visualize the *relative* emphasis on the dimensions in the different scenarios the spider diagram in Figure 5 (below) was created.

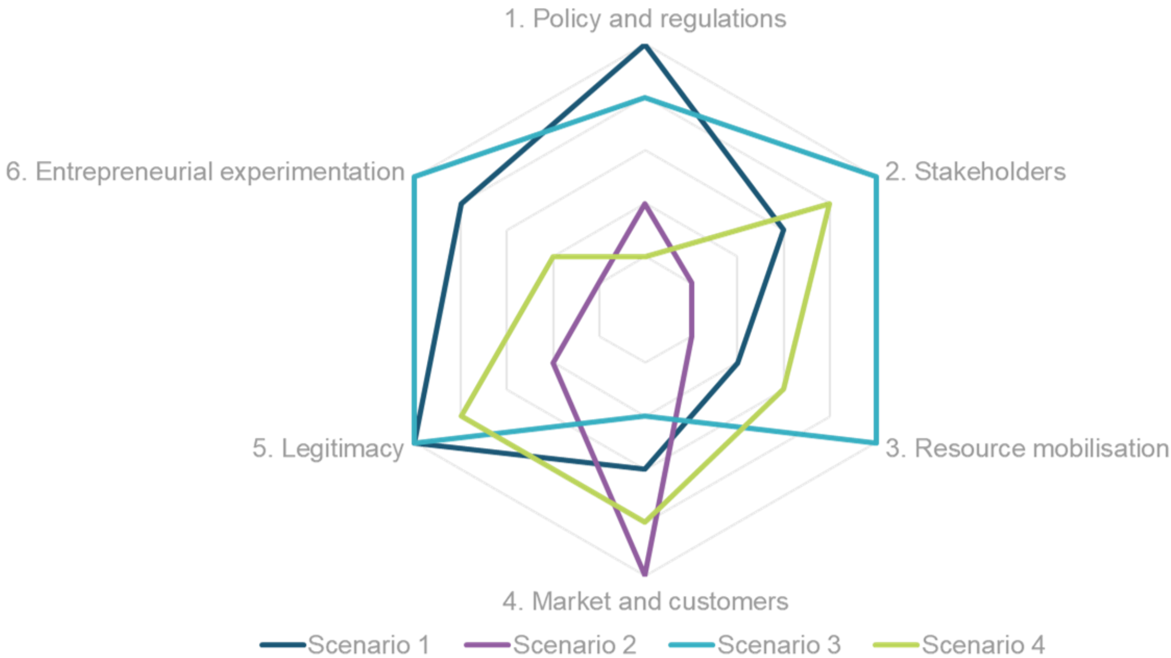

Figure 5 – Relative importance of governance assessment dimensions in the four scenarios.

For example, the difference between Scenario 2, with less emphasis on governance innovation and more on traditional market dynamics, and Scenario 3, where governance innovation is paramount, can clearly be seen. It should be stressed that all of the dimensions are of importance for any implementation of innovative measures, albeit in different balances.

5.1.1 Scenario 1 – Private-Driven Solutions with New Rules and Structures

Scenario: A consortium of private companies, ranging from micro-mobility providers to traditional delivery companies, collaborates with the City administration to establish solutions as part of a comprehensive mobility system. New rules and structures are implemented to standardize services, facilitate seamless integration, and ensure data privacy. The private sector takes the lead in innovation, while the government sets the regulatory framework to ensure fairness, sustainability, safety, and accessibility. Key elements, for success in the scenario, include:

- **Innovative Partnerships:** Successful collaboration between private companies and the government requires innovative partnerships. Establishing clear roles, responsibilities, and incentives for each party is crucial for the sustained success of the mobility initiatives.
- **Regulatory Agility:** The government needs to demonstrate regulatory agility, allowing for flexibility to adapt rules and structures as technology and the market evolve. This ensures that the regulatory environment remains conducive to innovation without compromising safety or fairness.
- **Data Governance:** With a significant role played by private entities, robust data governance is essential. Implementing rules that ensure data privacy, security, and sharing protocols is critical for maintaining public trust and enabling the effective functioning of mobility services.

- **User-Centric Design:** The success of private-driven mobility initiatives hinges on a user-centric approach. Ensuring that services are accessible, affordable, and meet the diverse needs of the community is essential for widespread adoption and positive public reception.

5.1.2 Scenario 2 – Private-Driven Solutions within Existing Rules and Structures

Scenario: This scenario has limited room for governance innovation. Private tech and mobility companies, incumbents and start-ups, independently introduce innovative mobility solutions without significant regulatory changes or government intervention. Mobility services develop and proliferate, driven solely by market dynamics and consumer demand. The absence of new rules and structures may lead to challenges such as uneven service quality, safety concerns, and limited accessibility, highlighting the need for the government to intervene and establish a regulatory framework. Key elements, for success in the scenario, include:

- **Rapid Regulatory Adaptation:** In the absence of new rules, the government should be prepared to adapt quickly to the changing mobility landscape. Establishing a framework for monitoring and responding to emerging challenges is essential to ensure public safety and fair competition.
- **Public-Private Collaboration:** Encouraging collaboration between the public and private sectors can help address challenges without imposing heavy regulations. Voluntary partnerships, such as industry standards and best practices, can foster responsible innovation.
- **Public Awareness and Education:** Success in this scenario relies on informed consumers. Governments and private entities should invest in public awareness campaigns to educate users about safety, responsible use of new mobility services, and potential regulatory changes.
- **Market Competition Monitoring:** The government needs to monitor the market to prevent monopolistic practices and ensure healthy competition. Intervening when necessary to address issues related to service quality, accessibility, or unfair business practices is crucial.

Since scenario 2, in its extreme form, is basically free market dynamics without much room for governance innovation, a lot of focus on these elements might actually push the scenario out of its quadrant.

5.1.3 Scenario 3 – Public-Driven Solutions with New Rules and Structures

Scenario: The government takes a proactive role in shaping the future of mobility by introducing new rules and structures. This includes the establishment of mechanisms overseeing and regulating the mobility landscape. Public transport is enhanced through investments in smart infrastructure and the introduction of innovative solutions for transport of people and goods. The government collaborates with private entities under a regulated framework to ensure sustainability, accessibility, and affordability. Key elements, for success in the scenario, include:

- **Clear Regulatory Framework:** A clear and comprehensive regulatory framework is essential for guiding public-driven mobility initiatives. This includes rules for new technologies, standards for safety and sustainability, and guidelines for public-private partnerships.
- **Investment in Infrastructure:** Success in this scenario requires substantial investments in smart infrastructure and public transport. The government should prioritise projects that enhance connectivity, reduce congestion, and promote sustainable modes of transportation.
- **Stakeholder Engagement:** Engaging with various stakeholders, including citizens, businesses, and advocacy groups, is crucial. Soliciting input and feedback ensures that public-driven initiatives align with community needs and expectations.
- **Monitoring and Evaluation:** Establishing mechanisms for continuous monitoring and evaluation helps the government assess the impact of its initiatives. This includes evaluating

the efficiency of public transportation, environmental impact, and the overall success of mobility policies.

5.1.4 Scenario 4 – Public-Driven Solutions within Existing Rules and Structures

Scenario: The government leads the initiative for mobility innovation without implementing significant new rules or structures. Public transport is expanded and improved through government-funded projects, focusing on sustainability and inclusivity. While there is support for innovation, the absence of updated regulations may lead to challenges in managing the integration of new technologies and ensuring fair competition among private entities. Key elements, for success in the scenario, include:

- **Community Participation:** In the absence of new rules, community participation becomes even more critical. Engaging citizens in decision-making processes, especially regarding public transport improvements, helps ensure that projects align with local needs and preferences.
- **Budget Allocations:** The government must allocate sufficient budgets for public-driven initiatives. Adequate funding is essential for expanding and maintaining public transport networks, implementing sustainability measures, and addressing infrastructure gaps.
- **Adaptive Policy-making:** Without new rules, policies should be adaptable to changing circumstances. The government needs to demonstrate a willingness to reassess and adjust its strategies based on feedback, emerging challenges, and technological advancements.
- **Collaboration with Innovators:** While the government leads, collaboration with innovators and community-driven initiatives should be encouraged. Creating platforms for innovators to contribute ideas and solutions ensures a dynamic and responsive approach to mobility challenges.

5.1.5 Common elements for the scenarios

There are a few elements and aspects that are present in all scenarios, and thus deserve to be highlighted. These are of importance in projects which aim to provide innovative mobility solutions. The elements have been observed in Task 4.3, were identified in D4.1, and derived during the scenario development. These elements include:

- **No project exists in isolation:** There is a need to understand the policy and regulation environment, as well as the resource landscape. Direct and indirect stakeholders, e.g. municipality, citizens, competitors, and customers are important to consider independently of their active participation.
- **Projects as negotiated solutions:** In all forms of collaboration, there is a need for giving and taking. An actor with a completely predetermined view of how a solution will look will likely run into obstacles along the way, while a more flexible approach is likely to be rewarded with more opportunities in the innovation ecosystem.

5.2 Conclusions and recommendations

One conclusion and recommendation, well in line with what we have seen in the Living Labs, is the importance of continually monitoring and working on the dimensions of *stakeholder engagement* and *legitimacy* – especially in cases of publicly driven innovation projects. This conclusion is relevant for the *Living Labs*, as well as *replicator* and *cascade cities.* Stakeholder engagement needs to be planned before selecting measures to implement. This finding is also in line with the conclusions from D4.1, where *broad engagement of stakeholders*, and the need to *view pilot projects as negotiated solutions* was identified as two of the main conclusions. In all three LL's there is a common identified need for the actors to feel ownership over processes and take active part in shaping the solutions. At the same time transparency is central: who makes decisions and on what grounds.

Another conclusion is that municipalities and other public actors should keep the door open for different forms of dialogue and collaboration with private actors. While ensuring integrity and independence, dialogue with private companies can create conditions for proactive governance and avoid unnecessary goal-conflicts when developing new policy and regulation.

The developed scenarios can be used for upscaling, replication and, to assess transferability. The scenarios are a helpful addition to the other elements of the analysis of measures and of the replication planning. Cities can be supported by WP4 in this endeavour through Task 4.4.

6. Conclusions and implications for other cities

Overall, since January 2022 considerable progress has been made in all three Living Labs. All of them have identified specific measures and actively worked to implement them. It should be noted though, that different test sites are on different stages of development. As all three cities have several test sites and several concepts to be tested, it is naturally difficult to keep the pace of progress equal in all of the test sites simultaneously. The context and conditions constantly change too, which entails the need to adapt. Some pilots were therefore prioritised and received more attention, some were launched ahead of others, while the work on others is ongoing in parallel.

The analysis of governance innovation progress in the three LL cities has been guided by the Governance Innovation Assessment Framework which had been applied on the data collected during interviews and workshops with LL teams. The model for innovative collaboration (figure 2), was also used in interaction with stakeholders. Some of the most significant takeaways from interviews, discussions, and workshops were that it seldom was one (and only one) actor that took all the three roles in the model, *convener, facilitator,* and *catalyst,* during the development of an innovative measure or solution that was implemented. This highlights the importance of governance innovation. Sometimes it was different individuals, and sometimes it was different organisational entities, that took a role that made the innovation possible.

6.1 Enabling factors for governance innovation

When it comes to governance innovation, all three cities came up with a number of innovative measures for each pilot that aim to enable implementation of innovative transport and logistic solutions in local specific contexts. The following enabling factors for governance innovation have been identified in the analysis:

- Engagement and proactive work of the local Task Force teams in an important enabling precondition. This is especially true for the departments and persons in municipalities who lead and coordinate the Living Labs in the respective cities. Sometimes it was different individuals, and sometimes it was different organisational entities, that took a role that made innovation possible. This points to the difficulty of drawing up too specific of a roadmap for other cities to follow.
- Engagement, thorough mapping and active inclusion of potential stakeholders into the process of planning and shaping the solutions. The analysis shows that in the majority of cases, when relevant stakeholders are identified early on and the co-creation processes are open, inclusive and contribute to an “ownership” feeling, that positively influences the implementation process. E.g., the majority of actors involved are positive to measures to implement.
- Co-creation and collaboration with a broad spectrum of actors creates transparency in decision making and creates forum for knowledge exchange and mutual learning between all involved actors, both private and public. This is an important corner stone of creating legitimacy. This is in turn important in case of testing and implementing innovative solutions that might require the actors to change their behaviour, change norms and habits of doing things, or require them to collaborate with “unusual” actors (both individually and in business models).

6.2 Hindering factors for governance innovation

Naturally, a few aspects that hinder the implementation of measures and implementation of concepts have also been identified. The following issues and difficulties are common for all the three cities:

- There are difficulties with harmonisation of the actions needed to be taken and the local (and sometimes regional/national) regulations. As transport/freight and transport related infrastructure is a complex sector with multiple stakeholders with multiple interests and priorities as well as affected areas and target groups (customers), different regulations apply. It seems difficult to find effective ways to harmonise local regulations and policies that would favour implementation of the pilots and fit the suggested innovative solutions in a given short timeframe.
- The above point about diverse regulations is further connected to another critical point – development of robust and sustainable business models for the pilots to continue to function after the MOVE21 project's lifetime. The new/changed regulations might become drivers and catalysators for change in business and even create new markets by stimulating development of new business models with new actors with innovative solutions to freight and transport. Development of new sustainable and long-term oriented business models remains one of the challenges to pilots' implementation.
- The challenge of finding actors who would be willing to take responsibility and drive the innovations further (also related to the above point on sustainable business models). There is often a certain confusion about operative roles of different actors and their relations towards each other and responsibilities: "Who does what and who is responsible?"
- Conflicts of interests between private actors that are driven by profit and competition is another complication. The responsible actors who lead the pilots find it difficult to find ways to persuade private competing actors to collaborate.
- Finally, lack of collaboration and cooperation within the different departments of the municipalities, lack of common understanding of the goals and the possible (new) ways to achieve them, lack of understanding of synergies, as well as administrative hinders such as lack of time and resources were found in all three cities and were articulated as one of the major difficulties to implementing innovations.

6.3 Recommendations and next steps

Governance for innovative mobility projects require municipalities and other public actors to step out of the comfort zone of everyday business. There is a need to be open to new forms of collaboration and to revisit earlier assumptions regarding policy and regulation, procurement, legitimacy, and how solutions are developed. Specifically, the municipality should understand that it, by itself, does not have all the answers, competencies, resources and ideas necessary for the best implementable new mobility and transport solutions. There might be a technically optimal solution to be found, but without the supporting *policy and regulation, stakeholder engagement, resource mobilisation, market and customers,* and *legitimacy,* that solution is unlikely to be implemented and sustainable.

The need for a *proactive and flexible approach to policy making* is identified as a key take-away. Using experimentation, peer-learning and stakeholder dialogue, better policy can be developed, benefitting the city, citizens and visitors, as well as businesses.

The conclusion from D4.1, *broad engagement of stakeholders,* still holds true. There is no need to cooperate with all stakeholders, but getting different perspectives, resolving conflicts before they arise and identifying possible obstacles and advocates in an early stage is important.

The same goes for the need to *view pilot projects as negotiated solutions* where the municipality needs to be ready to change its initial idea of a project as new information becomes available. That is at the core of *entrepreneurial experimentation* in the Governance Assessment Framework.

Interviews, dialogues and workshops have also reiterated *the future importance of resource constraints*, where there is a will from participating actors to create solutions that are financially sustainable, beyond the lifetime of the project.

These conclusions, as well as the governance scenarios, should be used by cities in upscaling and replication efforts in order to benefit from the experience of others and the collective wisdom in MOVE21. These aspects will be further analysed in the next deliverable of the work package, D4.3 MOVE21 Upscaling and Transferability Governance Assessment.

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7. References

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Annex A – Interview guide

Motivation: Based on the progress made since spring 2023 in every LL city and the project's half-time we hereby ask LL and test site leaders for an updated information and reflection about the implementation of measures *in relation to governance innovation*.

Aim: Identify relevant (current) barriers and drivers of positive change/successful implementation of measures (enabling factors) that can be strengthened and spread to other contexts and cities (implications for other cities, replicator cities, lessons learned).

Governance innovation - includes not only new regulations, political initiatives, steering documents, and visions, but also, importantly, *new* ways and forms of working together, management, collaboration; new ways of steering and cooperating/coordinating between different actors (public and private), new ways of looking at the outcomes and results. Co-production and organizational learning within and across scales that lead to new outcomes are also part of innovation.

Questions to informants:

Looking at the current status in the test sites (ref to pictures from the latest Executive Board meeting 25 sept)

-which measures are most successful? Why?

-what are the enabling factors?

-which measures are difficult (has been difficult) to implement? Why? (expectation/vision vs. reality)

-what are the hinders?

(Here we try to identify expectations vs. reality of implementation; vision vs. what is possible on the ground)

- Could the factors that are hindering implementation been foreseen or mitigated earlier?

- What are the lessons learned so far regarding implementation of measures for your specific context (in terms of governance/regulations innovation)

- A general reflection: what can other cities learn from your experience? what are the implications for other cities (successful implementation of measures and struggles).

-What pitfalls should one think of

-What are the drivers, possibilities that can be multiplied in other cities