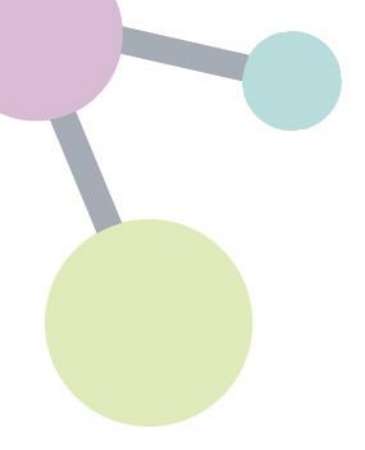




MOVE

21

LIVING LABS ESTABLISHMENT REPORT

Project deliverable D6.5

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Author(s): Geiske Bouma, Tijs van Maasakkers, Rowie Huijbregts, Marjolein Heezen (TNO)

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 MOVE 21 is to transform European cities and functional urban areas into climate neutral, connected multimodal urban nodes for smart and clean mobility and logistics. MOVE21 will do this through an integrated approach in which all urban systems are connected and which addresses both goods and passenger transport together. As a result, MOVE21 will improve efficiency, capacity utilisation, accessibility, and innovation capacity in urban nodes and functional urban areas.

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

MOVE21 partners

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

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



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Deliverable executive summary

The main objective of deliverable D6.5 is to detail the establishment of the Innovation Co-creation Partnerships (ICCP) in the three Living Lab cities. It describes the dedicated organisation, as well as the mission and vision for each, and explores the financing model. The deliverable refers to the first development stage (Year 1) – i.e. Set-up – of the ICCP in all three Living Lab cities.

The Innovation Co-Creation Partnership is the specific collaboration between local actors (Quadruple Helix) to shape and implement the measures of MOVE21 in the local context. This collaboration takes into account all quadruple helix stakeholders: knowledge institutes, various levels of government, citizens, and the private sector.

There are three important elements of the Living Lab organisational model described in the MOVE21 Grant Agreement. The first of those focal areas is the realization of a broad Innovation Co-Creation Partnership (ICCP), acknowledging and engaging the range of relevant organizations operating at the intersection of mobility and logistics. The second focal area related to the Living Lab establishment in the MOVE21 Grant Agreement is the creation of a focused Task Force (TF), taking primary responsibility for the initiation and implementation of key action. This type of TF should seek to engage all four elements of the “quadruple helix”, meaning representation from government, business, knowledge institutes, and citizens / civil society. The third focal area in the MOVE21 Grant Agreement related to the Living Lab establishment centres on the joint development of particular interventions or tests of innovative hubs that connect mobility and logistics streams in ways that reduce carbon emissions. This last focal area places certain requirements on various aspects of the Living Lab organisation, which have been resolved in different ways across the three cities.

Starting from the vision and mission of the MOVE21 project, within each of the Living Labs, this broad vision required translation and adjustment to the more specific local situations, policies, and stakeholder interests. While the overarching MOVE21 vision has remained central to each Living Lab’s development, every city has tailored its approach.

The development of a financing strategy and business model can take place at two distinct levels within the MOVE21 project. The first is the level of the Living Lab, where sources and/or flows of resources are created, (re-)directed, or combined to enable the overall organisational model of the Living Lab to persist beyond the lifetime of the MOVE21. At this level, the continuation of discussions at the level of the city-wide Innovation Co-Creation Partnership is a central element of the strategy or model. The second level at which one or more financing strategy(-ies) and business model(s) can be developed is at the level of the specific concept or test site, meaning that the intervention(s) developed and/or implemented during MOVE21 can persist independently from the resources made available during the lifetime of the grant from the EU. The expectation that each Living Lab has developed an initial business model relates primarily to the Living Lab as a whole. At the time of writing this report, the Living Labs have not yet made great progress on developing this initial business model on the level of the Living Lab. However, the Living Labs have generally made significant progress in developing initial business models at the conceptual or test site level. The operationalisation of the business models (foreseen in year 2) has not been incorporated into this report, as it is premature at the time of writing.

The report rounds up with an overview of the challenges related to the three topics covered, i.e. organisational model, vision and mission, and financing strategy and business models. For each identified challenge, a next step is defined to support the Living Labs cities to further develop and sustain

the Living Labs beyond the lifetime of the project. The next steps are key in WP6, but they also have important links to activities from other work packages.

Keywords

Living Labs, Innovation Co-Creation Partnership, organisational model, vision, mission, financing strategy, business models



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1 List of abbreviations and acronyms

Acronym	Meaning
D	Deliverable
EC	European Commission
EIT	European Institute of Innovation & Technology
ENoLL	European Network of Living labs
GA	Grant Agreement
GCP	Gothenburg Climate Partnership
GGCZ	Gothenburg Green City Zone
ICCP	Innovation Co-Creation Partnership
LIHH	Logistics Initiative Hamburg
LL	Living Lab
TF	Task Force
WP	Work Package

2 Purpose of the deliverable

This deliverable details the **establishment of the Innovation Co-Creation Partnerships** in the three Living Lab cities. It describes the dedicated organisation, as well as the mission and vision for each, and explores the financing model. The deliverable refers to the first development stage (Year 1) of the ICCPs in all three Living Lab cities.

2.1 Attainment of the objectives and explanation of deviations

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

2.2 Intended audience

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

First of all, the audience is intended to be the project participants in general, as well as the stakeholders involved in the Living Labs. This relates to directly involved stakeholders – Living Lab project managers, involved city officials, Task Force members, ICCP members – as well as stakeholders related to the three cities that are interested in the MOVE21 Living Labs. Also, the report is relevant for work packages in MOVE21 that have a link with the Living Labs and the establishment and self-sustaining of the concept, as well as support to achieve this (see section 2.3).

Furthermore, this deliverable on the establishment of the Living Labs and the Innovation Co-creation Partnerships is interesting for a general audience that wants to set up self-sustaining Living Labs and would like to learn on the approaches implemented in MOVE21.

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

The deliverable details the establishment of the ICCPs in the three Living Lab cities in the first year of development, the Set-up stage. The deliverable describes what is in place, regarding organisation model, vision and mission, as well as financing strategy and business model(s). Furthermore, it looks ahead towards the next development stages (Stage 2 – Maturing; Stage 3 – Stabilising) and the needed knowledge support, challenges and questions.

There is a strong link with the Governance Innovation work package, WP4. This work package will give knowledge support on related topics to establishing of the Living Labs, going beyond the lifetime of the project. This relates to knowledge on, for instance, the organisation model, visioning, business modelling.

There is also a link to WP3, Urban Social Layer, related to stakeholder engagement, as part of the Organisational model. This work package will give knowledge support on this topic.

Furthermore, there is a link with WP10, Outreach and Dissemination, related to the Local Communication Plans. These will support the further establishment of the ICCPs and gearing the local communication and dissemination actions towards local stakeholders.

There is also a link with WP7, Replication and Take-up, related to the replicability of the ICCP concept and how it is deployed or replicability of innovations developed in the Living Labs, including sharing experiences and practices as part of knowledge exchange and capacity building activities.

There is a link with WP8, Measuring and Impact Assessment, related to the impact of increased collaboration between public and private entities across transport domains.

Finally, there is a link with WP9, Exploitation Management, related to and business plan development and the exploitation of the business models.

3 Introduction

In this chapter, we illustrate the relevant MOVE21 context for this deliverable, D6.5 Living Labs establishment report. The deliverable is part of Work Package 6 (WP6), which is responsible for the Living Labs in MOVE21.

This chapter starts with the state-of-the-art on living labs (3.1), followed by an introduction on the MOVE21 Living Labs (3.2). Next, we go into the quadruple helix innovation model (3.3) and explain the ICCP development stages (0). Furthermore, the sources used as input for this deliverable are described (3.5). This chapter is closed with a reading guide (3.6).

3.1 State-of-the-art on living labs

Over the past 40 years, “living labs” have been employed to foster collaborative innovation in order to solve complex societal challenges. Since the 1980s, the concept and implementation of living labs has risen in popularity in Europe. Content-wise, living labs were initially focused on ICT tools, yet gradually extended to other topics and fields such as renewable energy, healthcare, and urban mobility. Method-wise, living labs evolved from employing field experiments and lab experiments mimicking real-life conditions towards today’s experimentation, innovation and co-creation approach in actual real-life contexts (EIT Urban Mobility, 2021; Schuurman & Protic, 2018).

Since the mentioning of “living labs” in the *Helsinki Manifesto* in 2006 (Finland’s EU Presidency, 2006), in which they are referred to as important elements for European research and development of innovation systems, the living lab approach spread across Europe. As an illustration, the European Network of the Living Labs (ENoLL) has now labelled more than 450 living labs, covering different topics and fields (EIT Urban Mobility, 2021).

As to defining the concept of living labs, ENoLL defines these as “user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings.”¹ More specifically, living labs involve (EIT Urban Mobility, 2022; Schuurman, 2015; Zavrtnik et al., 2019):

- **Experimentation** that takes place in a real-life setting, typically uncontrolled and covering daily end-user settings (e.g., a house, street, neighbourhood, city);
- **Co-creation and end-user involvement** that allows for stakeholders and end-users to cooperatively influence experimentation in order to increase the acceptance of developed innovative solutions and their subsequent uptake;
- **Quadruple helix stakeholder participation** that allows for user-centric innovation by inviting all sorts of stakeholders from government, industry, academia and civil society;
- **A multi-method approach** that allows for a multidisciplinary perspective to experimentation and innovative solution finding.

In addition, living labs are typically focused on **continuing** existing achievements beyond the lifetime of the living lab and **upscaling** existing achievements beyond the settings (e.g. geographical barriers) of the living lab (Gascó, 2017).

¹ <https://enoll.org/about-us/>, retrieved on 10 June 2022.

In order to deal with urban transitions **evaluation** is also an important part of the living lab approach. This relates to understanding how living labs are able or not able to take effect and to explore the steps towards intended impacts (Bulkeley et al., 2016).

Linking this more general state-of-the-art information on living labs to the topic and field of urban mobility in particular – given the scope of the MOVE21 project –, the *Sustainable and Smart Mobility Strategy* of the European Commission emphasizes that European transport and mobility must fundamentally transform and head towards a “sustainable and smart future” (EC, 2020). Moreover, the European Green Deal emphasizes that “the involvement and commitment of the public and of all stakeholders is crucial to the success of the European Green Deal”, referring to stakeholder entities as civil society, industry and European, national, regional and local (public) authorities (EC, 2019). Living labs are designed to address this sustainable and smart mobility transition on the local level, inviting said stakeholders and end-users.

3.2 MOVE21 Living Labs

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

Oslo, Gothenburg, and Hamburg have committed to maintain the Living Labs beyond the lifetime of the project. Maintaining a Living Lab and its results is a known challenge (Gascó, 2017). In MOVE21, specific activities are developed to maximize the sustainability of the Living Labs in the cities: (i) by uptake of new knowledge and skills within city governments, (ii) by strengthening local innovation ecosystems and networks through specific Innovation Co-Creation Partnerships, and (iii) by exploring and evaluating sustainable business models for the Living Labs as part of MOVE21.

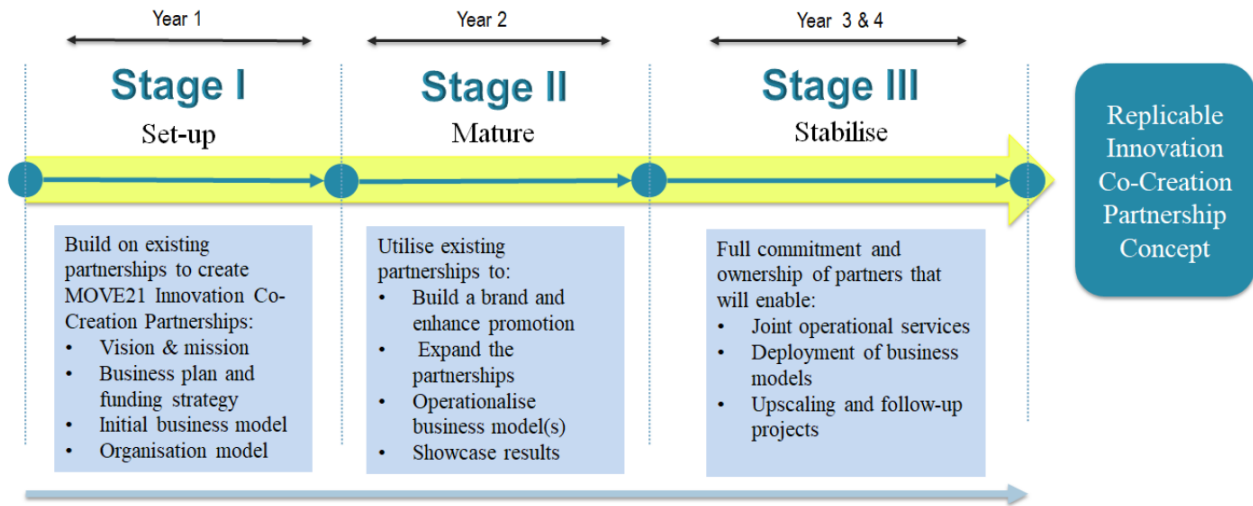
3.3 Quadruple helix innovation model

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

The quadruple helix partners consist of representatives from government, business, knowledge institutes, and citizens / civil society. Selection and involvement of potential partners is supported by a stakeholder analysis. Engaging citizens and civil society organisations is specifically pursued through inviting local citizen associations, collectives, and people who live in the area (and thus are experts with local knowledge).

3.4 The development stages of the Innovation Co-Creation Partnership

The MOVE21 Living Labs, with the Innovation Co-creation Partnerships at their core, develop in three stages and work towards becoming self-sustaining, continuing beyond the lifetime of the project (see Figure 1). Please note that the detailed description of the ICCPs can be found in chapter 4.



Continuous monitoring to ensure an iterative process that is based on the needs of the participants from start to finish

Figure 1 – Development stages of the MOVE21 Innovation Co-creation Partnership

We hereafter elaborate on the scope, as described at the start of the MOVE21 project, of each development stage based on the methodological approach (see Figure 1). This deliverable focuses on describing results from Stage 1 (M1-12), the Set-up: establishing Innovation Co-Creation Partnerships in the Living Labs (see 3.4.1). Furthermore, an outlook is given to future steps taken towards maturing (see 3.4.2), and stabilising (see 3.4.3) the Innovation Co-Creation Partnerships.

3.4.1 Set-up: establishing Innovation Co-creation Partnerships (stage 1 / M1-12)

MOVE21 builds on already existing partnerships. These partnerships are asked whether they could adopt the MOVE21 Innovation Co-creation Partnership. The Innovation Co-creation Partnership, comprising of the Quadruple Helix actors, is then organised either under the “umbrella” of an existing partnership or as a new partnership with the specific task to co-create and co-deploy the MOVE21 mobility innovations. In this Set-up stage, a MOVE21 Living Lab Task Force is formed (core team of approx. 5 participants) and has a strategic role in establishing the partnership and will oversee all processes of the ICCP. Moreover, they will decide about the meeting places and dedicated local communication. The Task Forces will invite stakeholders from the local innovation ecosystem to participate in co-creation workshops and other processes. Each Living Lab Task Force will develop:

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

3.4.2 Maturing the Innovation Co-creation Partnerships (stage 2 / M13-30)

By the end of this phase, the Partnerships have their business model and funding strategy in place to be able to live after the project's lifetime. Each Partnership will have developed its ways of working and has increased local innovation capacity. During this stage, the following activities are conducted:

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

3.4.3 Stabilising the Innovation Co-creation Partnerships (stage 3 / M31-48)

Partners are fully committed, with clear ownership, and only minor adaptations in the organisation of the Partnership might be necessary to ensure longevity. The model for the Partnerships that is developed by the end of this stage is replicable across Europe. The following activities are deployed:

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

3.5 Sources of input for this deliverable

For this deliverable, different sources of input have been used: the template for Living Lab cities and the Task Force meetings (see Annex A – D6.5 Template for Living Lab cities), as well as the reflective monitoring process (see 3.5.2). We shortly describe the sources of input below.

3.5.1 Template for Living Lab cities & Task Force meetings

For the delivery of D6.5, a template was developed for the Living Lab cities to fill in. The questionnaire template consists of questions to describe (1) the organisation model, (2) the vision and mission, and (3) the financing strategy and business models of the Living Lab as-is (situation of Spring 2022), see Annex A. The template for each Living Lab city was presented and discussed in the Task Force meetings of each of the Living Labs in April and May 2022. The final inputs have served as basis for chapters 5, 6, and 7.

3.5.2 Reflective Monitoring

The Reflective Monitoring component of MOVE21 is focused on enabling qualitative monitoring and learning within and across the Living Lab cities. Substantively, the effort is centred on three topics, namely the Innovation Co-Creation Partnerships, innovation capacity, and policy coherence. To initiate this line of activities, TNO developed Deliverable D6.1: *Reflective Monitoring guide* during the first six

months of the project. This guide outlines the information gathering practices, timeline, and related activities that will take place throughout the MOVE21 project. Following the completion of the guide, a series of semi-structured interviews took place with Task Force members across the three Living Labs in order to gather baseline information about the developing of those entities. These interviews took place in March-April 2022 and consisted of 1-hour virtual meetings between TNO staff and one or two Task Force members. A total of 13 interviews were conducted with 16 Task Force members. The outcomes of those interviews form part of the evidence base for this deliverable. In addition to these interviews, meeting observation protocols and exit survey instruments were distributed to specific partners within each Living Lab, the local monitors, and will be used on a regular basis to gather information about process dynamics and insights. At the time of writing, information gathered through this process is to be further processed to determine the key reflections to discuss. This will take place in additional workshops and/or organized interactions. The expectation is that this will start taking place in the second half of 2022.

3.6 Reading guide

In chapter 4, we detail the scope of the Innovation Co-creation Partnership, as well as the related governance. The following three chapters each highlight a different topic relevant to the Set-up of the Innovation Co-creation Partnership in the Living Labs. Chapter 5 focuses on the organisational model, chapter 6 focuses on the vision and mission, and chapter 7 focuses on the financing strategy and business models. In each chapter, the three Living Labs – Oslo, Gothenburg and Hamburg – are described related to the topic and the steps taken in Year 1, the Set-up stage, of application of the Living Lab methodology. In each of the chapters, the main challenges and barriers are also discussed for each topic. Finally, chapter 8 describes the challenges and relevant next steps.

4 The Innovation Co-Creation Partnership

4.1 The scope of the Innovation Co-Creation Partnerships

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

Below we further elaborate on the role of the supporting body for the ICCP, the Living Lab Task Forces (MOVE21, D1.1, p.14-15), the test sites, and the advocates.

4.1.1 Task Force

The ICCP has a task force that will act as the core team of the partnership, which is responsible for the agenda and process, organizing the partnership, and safeguarding progress and sustainability of the partnership. The task force consists of approximately 4-6 persons, representing quadruple helix stakeholders and local partners from the existing partnership. The task force organises the process (i.e. co-creation) with the test sites, as well as the knowledge exchange with MOVE21 WPs and the advocates (see 4.1.3).

4.1.2 Test sites

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

4.1.3 Advocates

Advocates are the local contact points for WPs 3, 4, and respectively 5 in MOVE21. These advocates are knowledgeable on the following topics (with links to work packages) and there is an advocate appointed for each topic:

- **The urban social layer (WP3)** – spatial context to increase social considerations in mobility planning, providing technical knowledge on upscaling and replication potential;
- **Governance innovation (WP4)** – governance framework, providing technical knowledge to increase innovation capacity, and on upscaling and replication potential.
- **Technological solutions and integration (WP5)** – technological framework and solutions, digital twins, supporting operations and providing technical expertise, including upscaling and replication potential.

Furthermore, an advocate for WP 8 will be appointed in the MOVE21 project. This has a relation with the implementation of the measures. The advocate will mainly focus on the relation with the city monitoring system(s).

- **Measuring and impact assessment (WP8)** – impact analysis framework, urban mobility monitoring system, implementation and validation of the impact analysis framework, upscaling impacts on TEN-T accessibility and network performance.

Also for **WP 10: Outreach and Dissemination**, a contact point will be appointed that has a direct role related to local communication in the Living Labs.

4.2 The governance of the Living Lab and the ICCP

The general governance scheme of the Living Lab as visualised in Figure 2 indicates the relationships between several entities that have been described in section 4.1, that is the ICCP, Task Force, test sites, advocates for knowledge brokerage, and existing local partnerships (i.e. those networks adopting the ICCP in their existing organisational structures beyond the lifespan of the MOVE21 project). This scheme indicates the starting point for governance, as described in the MOVE21 Grant Agreement. Over the first year, the Living Labs of Oslo, Gothenburg and Hamburg have translated this more general scheme into their context-specific Living Lab governance scheme, which is further detailed in the next chapter, on the organisational model.

Living Lab City

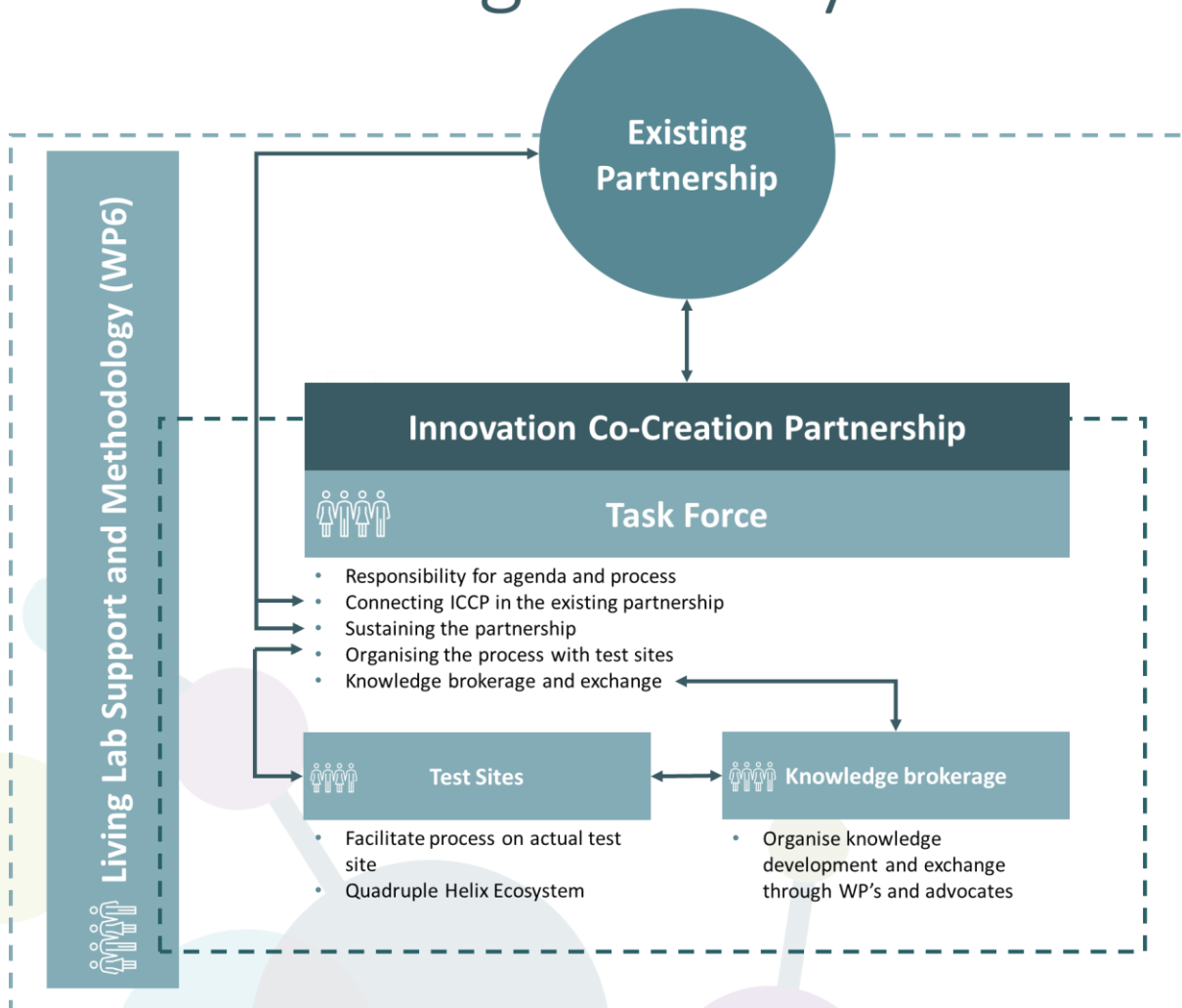


Figure 2 – Governance of the Living Lab and the ICCP

A short explanation of this generic scheme is given here. The ICCP constitutes a collaboration between local actors to shape and implement the MOVE21 measures in local contexts. The ICCP has a relationship with existing partnerships to make sure existing organisational structures are willing to adopt the ICCP and MOVE21 measures in the future. The ICCP is connected to a Task Force that is responsible for managing the ICCP's operations, relating both to the test sites and to advocates for knowledge brokerage. Test site actors and knowledge brokers also interact when necessary. In Figure 2, WP6 is added to highlight their support and methodology advice for the Living Lab as a whole.

5 Organisational model

The literature on, and experience with, Living Labs reveals that these can take a myriad of organisational forms, from highly formalised and structured, to much more flexible and networked arrangements. The MOVE21 Grant Agreement points attention to three important elements of the Living Lab organisational model. The first of those focal areas is the realization of a broad Innovation Co-Creation Partnership (ICCP), acknowledging (and engaging) the range of relevant organizations operating at the intersection of mobility and logistics. The second focal area related to the Living Lab establishment is the creation of a focused Task Force, taking primary responsibility for the initiation and implementation of key action. This type of Task Force should seek to engage all four elements of the “quadruple helix”, meaning representation from government, business, knowledge institute(s), and citizens / civil society. The third focal area in MOVE21 related to the Living Lab establishment centres on the joint development of particular interventions, or tests, of innovative hubs that connect mobility and logistics streams in ways that reduce carbon emissions. This last focal area places certain requirements on various aspects of the Living Lab organisation, which have been resolved in different ways across the three cities.

The focus on the organisational design of the Living Labs proposed in MOVE21 has resulted in significant deliberations within the Task Forces in order to understand the dense conceptual framework and then adjust it to fit to the relevant context in each city. These deliberations have sometimes been slowed down by changes in staffing at partner organizations, and occasionally resulted in a sense that implementation efficacy was secondary to more abstract organizational concerns. The organisational models presented in this report are the result of these deliberations, but are best understood as the situation at the time of writing this report, as opposed to a “final” state of affairs in each of the Living Labs. In fact, several of the components of each Living Lab, from specific partner organizations to the location of a test site, remain in some state of flux, in part due to the contingent nature of some of the proposed interventions. The complexity of the innovative solutions tested in MOVE21, and specifically the social and legal arrangements between organisations and individuals previously not used to working so closely together, has meant that progress has been steady, but not always along the timelines expected at the outset. The organisation of the Living Labs is therefore perhaps better understood as an ongoing process, as opposed to a linear and finite journey to a specific destination or “model.”

5.1 Organisational model Oslo Living Lab

The governance of the Oslo Living Lab is organised around the Innovation Co-Creation Partnership, currently this consists of partners in the MOVE21 project. The Oslo Task Force consists of a selection of members from the ICCP, with a dynamic membership structure. This means that the TF includes members that are addressing current needs in the TF-processes. Therefore, the TF composition changes over time, and ICCP members can join and/or leave the TF for limited periods of time (detailed information on organisations engaged within the Oslo Living Lab can be found in Table A 1, Annex B). For example, Urban Sharing joined the Task Force after approximately six months, as concept development ideas required specific expertise and experience. Currently, representatives from government, businesses, and a knowledge institute are part of the Task Force. Direct engagement with the citizens and/or civil society (represented as stakeholders and users in Figure 3; an enlarged representation of Figure 3 can be found in Annex C) is expected to take place at the test site level, meaning that representation among all quadruple helix stakeholders will take place in a sequential fashion.

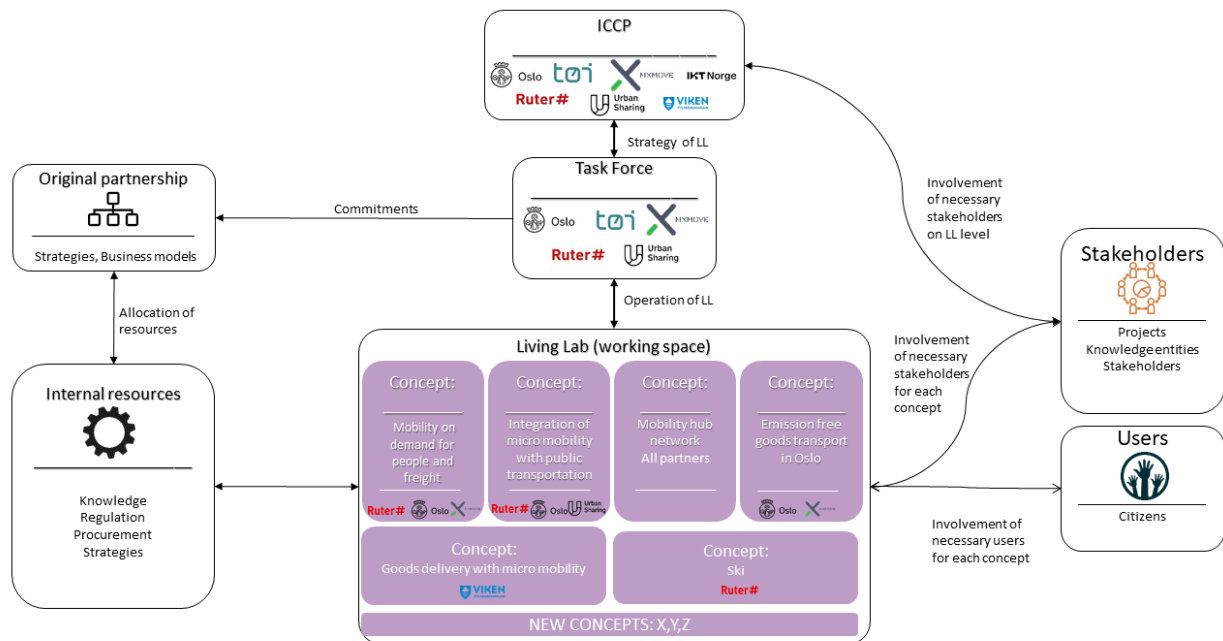


Figure 3 – Organisational model of the Oslo Living Lab ²

The set-up of the Task Force in Oslo has developed following careful deliberations among ICCP members, in part as the result of the significant effort required in translating the conceptual categories and distinctions in the Grant Agreement to the practical complexities of urban governance in Oslo. The Task Force meets weekly, although this frequency may vary over time, to discuss concepts, divide tasks, and make decisions.

The Task Force in Oslo developed and is engaged in a co-creation process for concept development. This co-creation process starts with gathering ideas from partners and stakeholders (e.g. within the different partners in the ICCP, and with the ambition to also co-create with the Business for Climate network) that would help the Oslo Living Lab to achieve goals regarding freight and mobility, climate, traffic reduction and optimization of area/infrastructure, and transport services. Business for Climate is a collaboration between the City of Oslo and companies in the Oslo region. The Business for Climate network consists of over 100 companies that work to reduce Oslo's greenhouse gas emissions in line with the city's climate goals. The members are small and large companies from a number of different industries.

The ideas gathered through partners and stakeholders are analysed by the Task Force, after which the idea will either be rejected or taken up to the next stage. For some ideas, it might be necessary to gain more information, in which case the Task Force will organize workshops and/or meetings with users/stakeholders. The ideas can be put in the "idea bank" for later use or planning steps towards concept development are officially taken. These steps include further co-creation sessions with partners and possibly other stakeholders. This process of co-creation for idea generation with partners and stakeholders are aimed to be iterative throughout the project lifetime and can possibly be sustained beyond the lifetime of the project.

² As drafted by Task Force Oslo (May 2022).

To further develop the concepts beyond the initial idea, the Task Force initially organised itself into smaller sub-groups around specific concepts for particularly promising potential interventions, enabling more targeted discussions in those dedicated teams. More recently, the Task Force decided to no longer work in sub-groups to avoid compartmentalisation in concept development. All partners are involved in the development of the concepts, although every partner can give specific attention to concepts that link to their interests and expertise. At the time of writing, the four concepts that are being developed are:

- a. Expansion of existing mobility on demand service to incorporate freight;
- b. Integration of micro-mobility with public transportation;
- c. Securing seamless urban logistics within the zero-emission zone;
- d. Strategic deployment and connection of mobility hubs (network of mobility hubs).

These concepts will be tested, in various combinations, at designated test sites, which vary in size and level of development. At the time of writing, the test sites include Filipstad (concepts a and c), Lilleakerbyen (concept a), City centre (concepts a, b, and c), and Grorud (concept d). The Ski station test site, outlined in the MOVE21 Grant Agreement, remains somewhat in flux as a potential test site for one or more of the concepts. Access to available land for specific test sites is currently being discussed across the concepts.

Compared to the test sites mentioned in the Grant Agreement the locations of Lilleakerbyen and Grorud have been added. The reason for this is securing locations to test the concepts as Lilleakerbyen has the same challenges as Filipstad and Grorud has the same challenges as Ski station. This makes it possible to start testing of the concepts first in Lilleakerbyen and Grorud, and at the same time learning from this first test and further developing the test sites of Filipstad and Ski station – that then will be developed in a next phase.

The matching of test sites and concepts within the Oslo Living Lab is dynamic, meaning future concepts can emerge and result in additional dedicated sub-groups in the Task Force, and potentially in additional interventions at specific test sites.

The test site ecosystem in the Oslo Living Lab follows the concept development approach described above. The concept development approach was initiated by asking ICCP members for business cases for specific (types of) interventions, in an effort to ensure commitment from those organizations. As a result of this approach, the expectation is that each concept, should it be successfully developed, will be financially sustainable (i.e. a viable business model specific to that concept).

The organization of the ICCP remains directly connected to the MOVE21 partners in Oslo and intensive stakeholder analyses are expected to take place at the test site level. The Task Force members have started to develop a process for accepting new members into the ICCP, yet no organizations have joined as of the time of writing this report as this process is still to be further developed and implemented. The Oslo Living Lab members anticipate continued partnerships to emerge from the conceptual and practical innovations developed in the context of MOVE21. However, at this stage of development, more specific outlines of those potential partnerships remain tentative.

5.2 Organisational model Gothenburg Living Lab

The organisation of the Gothenburg Living Lab is centred on the key partners within the existing partnership (see Figure 4), meaning the signatories to the MOVE21 Grant Agreement, with the Task Force consisting of representatives of several of those organizations (detailed information on organizations engaged within the Gothenburg Living Lab can be found in Table A 2, Annex B). Currently,

representatives from local government agencies, a publicly owned waste management company, a state-owned research institute and a publicly owned regional development agency make up the Task Force. Direct engagement with the fourth component of the quadruple helix, citizens and/or civil society, is expected to take place at the test site level.

The set-up of the Task Force is evaluated yearly to align with the needs in the current phase of the project. When entering the second year of the project the state-owned research institute joined the Task Force and in later phases of the project changes can be made.

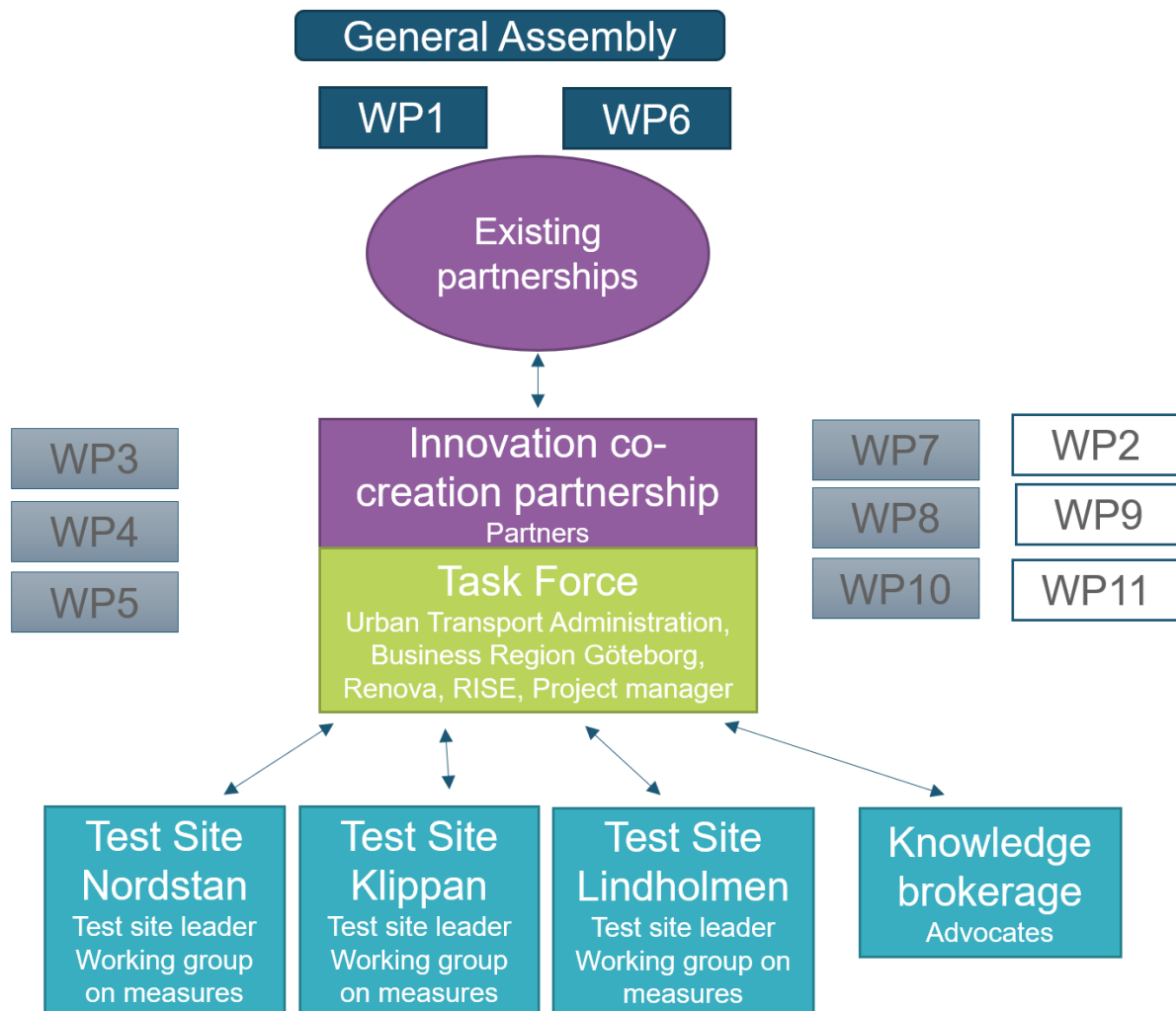


Figure 4 – Organisational model of the Gothenburg Living Lab ³

The set up of the Task Force in Gothenburg required the development of a shared and contextually relevant understanding of the specific requirements, language, and expectations of the Grant Agreement. This resulted in a model in which the three test sites (Nordstan, Klippan, and Lindholmen) are structured as working groups of the Task Force. The intention is to appoint one TF member per test site as problem owner (i.e. lead). The Task Force in Gothenburg meets at least monthly, or more frequently based on needs. The Task Force organised a stakeholder analysis process and utilized the

³ As drafted by Task Force Gothenburg (May 2022).

results to inform the further development of both the Innovation Co-Creation Partnership (ICCP) and of the test sites.

The development of the ICCP beyond the initial MOVE21 partners has moved along two lines of inquiry in Gothenburg, one focused on the Gothenburg Climate Partnership (GCP) and one on the Gothenburg Green City Zone (GGCZ). GCP is a local long-term partnership between the business community and the City of Gothenburg that aims to actively reduce climate impact. GCP offers members advice on process management, communication and impact analysis linked to specific projects or challenges governed by business needs. GCP was initiated by the City of Gothenburg and is hosted by Business Region Gothenburg with mainly business participation. GGCZ is an initiative to establish an area where a fully climate-neutral and a zero-emissions transportation system is being developed. The initiative was taken jointly by the City of Gothenburg (through Business Region Gothenburg), Volvo Cars, and RISE and with participation from business, society and academia. Both efforts highlight the existence of a dense web of organizations, initiatives, and networks relevant to mobility, logistics, and carbon emissions in the city and the region. Ongoing dialogue with these entities, both in the form of workshops and leadership meetings, have informed steps taken in relation to the test sites and related interventions.

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. The measures 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 is needed, with the possibility to pilot, replicate, and upscale tweaked concepts, that could be of interest in later stages of the project.

In test site Nordstan, a central district in the city, with a big shopping mall, logistics and mobility will be combined by creating a zero-emission micro-mobility hub focusing on small vehicles and bikes. In the pilot phase, the hub will consist of two parts: (1) in the garage, a handyman hub will be established, where local handymen and service technicians can use cargobikes to transport themselves and necessary materials to job sites, as their cars or vans remain parked at the mall, and (2) at ground level, a public center is under development, with micro-logistics and bicycle services for both business and private sector. At the Klippan test site, the integration of parking, bike sharing, and public transport is in focus, following a Mobility-as-a-Service platform, combined with a bike maintenance station and a focus on urban environment which encourages sustainable mobility. In a parallel project, a concept for Park-and-Ride is under development and efforts are made to align the timelines to be able to pilot this concept at the site as well. Finally, in Lindholmen, the focal intervention will consist of an integrated and net-zero emissions approach for business-to-business parcel delivery. These interventions require the active participation of a range of stakeholders and users, which will be shaped in part through the working groups in the Task Force, as well as additional information gathering and engagement practices, several of which are underway at the moment of writing this report.

Dialogue meetings have been taking place with stakeholders based on the initial mapping process. Furthermore, prioritised stakeholders (outside of the MOVE21 partners) have been invited to workshops on potential mobility hub solutions for each test site. More, when establishing working groups for each concept, stakeholders outside of the partners are invited. For example, for the micro-mobility hub in Nordstan, participation is foreseen for a property owner, a bike service provider, a vehicle leasing company, and a cargo bike logistics company.

Task Force membership is envisaged to connect problem owners to solution providers in the broader sustainability realm and utilizes this experience and approach in its effort to develop financially sustainable test site interventions.

5.3 Organisational model Hamburg Living Lab

The Task Force in Hamburg is at the centre of the Living Lab, with two distinct groups of partners performing the role of the ICCP, as outlined in the Grant Agreement (see Figure 5). The first consists of partners with a more strategic and policy-oriented focus, the second is made up of organizations with a focus on the implementation of specific interventions at the neighbourhood level.

The formal embedding of the strategic partners is organized as a newly set up working group within the existing partnership of the Logistics Initiative Hamburg (LIHH). The Logistics Initiative Hamburg is a public-private partnership with more than 500 member companies and institutions from the Hamburg metropolitan region which was initiated by the then Ministry of Economy and Labour Affairs and Hamburg's Economy and advances the logistics-related economy through its comprehensive network.⁴

The implementation-oriented partners are more loosely organized as a network, while some specific organisations are providing social and cultural services at one of the test sites in more formal arrangements (detailed information on organizations engaged within the Hamburg Living Lab can be found in Table A 3, Annex B).

There are 'direct connections', between the Task Force and the different partners in the more strategic and policy-oriented focus as well as with the implementation-oriented partners. Also, there are 'indirect connections' from the (local) stakeholders to the concept development ecosystem. The 'perspective connections' refer to potential future connections that can or will be made.

⁴ <https://www.hamburg-logistik.net>, retrieved on 10 June 2022.

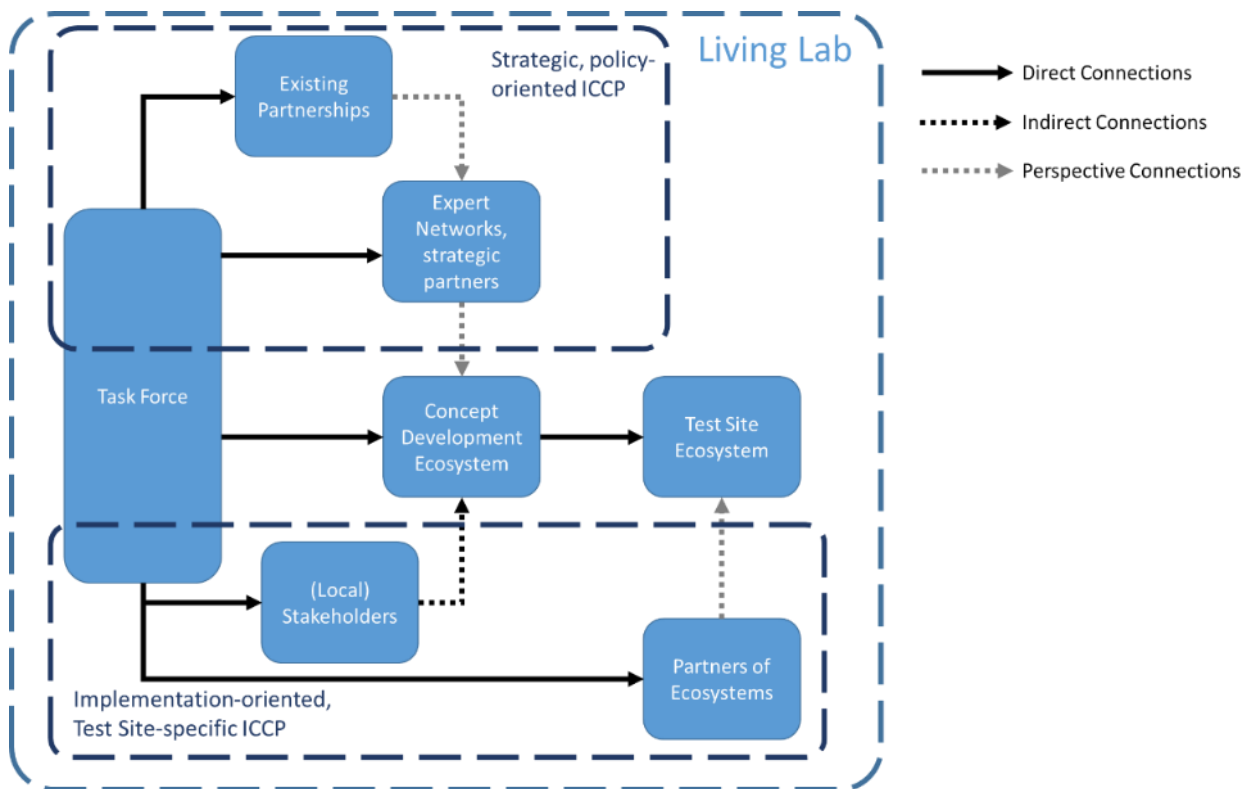


Figure 5 – Organisational model of the Hamburg Living Lab ⁵

The set-up of the Task Force in Hamburg is made up of key partners from the MOVE21 consortium, including government agencies, a knowledge institute, and a private actor. Direct citizen and/or civil society representation takes place primarily at the test site level. A distinctive feature of the Task Force in Hamburg is the presence of a district-level representative, for Altona. The district representative on the Task Force, and more broadly Altona's role in the MOVE21 partnership, provides a geographic focus and a direct connection to implementation-level issues, questions, and opportunities. The Task Force meets on a weekly basis to discuss concepts, agree on the direction and next steps, take decisions, and divide tasks. In addition to the weekly meetings, the TF has organised several workshops, e.g. on concept development, co-creation, and stakeholder analysis. The results of the stakeholder analysis have been used to inform the further development of both the Innovation Co-Creation Partnership and the test sites.

The development of the ICCP, specifically at the strategic and policy level, has taken on a specific form in the Hamburg Living Lab, with the formation of a new working group within the existing Logistics Initiative Hamburg. The new working group is led by the Ministry of Economy and Innovation, which is a member in the Task Force in Hamburg as well. It is planned to include actors from the following areas: private sector actors – members of LIHH, as well as actors without membership, the public sector (representatives of ministries and districts), actors in the areas of logistics and mobility, representatives of associations for logistics and commerce, as well as scientific actors like universities. As the working group is still being established, the composition has to be finalised and will adjust if there are developments of new topic areas. It is planned to have actors who are taking part continuously, as well as actors who will join for a specific topic. Subgroups will be formed for focus topics. In addition, the

⁵ As drafted by Task Force Hamburg (May 2022).

Task Force has initiated contacts with and has joined another existing partnership, a working group that was introduced in the context of the 2021 ITS World Congress in Hamburg by the City of Hamburg's Ministry of Transport and Mobility Transition, and a local public transport company, with the aim to support and strengthen the exchange between stakeholders in the fields of transport of people and transport of goods. This working group is currently undergoing a restructuring and will in the future focus on new mobility solutions. Which role this working group on new mobility solutions can play with regard to the ICCP in addition to the Logistics Initiative working group remains to be seen. Furthermore, the Task Force has initiated contacts and a more informal network structure to engage stakeholders interested in and relevant for the implementation and test-site specific issues, to discuss issues and opportunities related to the full range of services offered at those sites, including social and cultural services. More grassroots and neighbourhood-specific entities can join this partnership without the official requirements associated with membership in the Logistics Initiative. The Task Force is considering the implementation of meeting formats, such as deep-dive workshops, on specific issues or test sites to which both members from the working group of the Logistics Initiative as well as additional local stakeholders, will be invited to participate.

The test sites in Hamburg are all located in the District of Altona. During the first phase of test site development, four multifunctional neighbourhood hubs in the eastern, densely populated urban part of the District of Altona have been conceptualised and established. The hubs are located at the test sites Holstenstraße, Harkortstraße, Kaltenkircher Platz, and Station Altona. All these test sites will incorporate various site-specific interventions related to mobility and logistics and some level of (re-) construction will be required at all of them to achieve the stated goals. In addition, some of the test sites will incorporate cultural and/or social service offers. The development of the Holstenstraße test site is most advanced, with a renting agreement signed between the housing company SAGA (owner of the location) and the district of Altona (party that rents the location) to temporarily use an existing building. Renovations have started to adapt the building to the foreseen purpose of logistic, mobility, and social/cultural use. Talks and site visits with potential users of all considered sectors have already taken place. Final agreements with the first users are expected to be made during June and July 2022. Other test sites are in various stages of development, ranging from the start of administrative procedures for the establishment of the hub, initial public outreach, and acquisition of first logistic users in Harkortstraße to conversations with a potential key partner for Kaltenkircher Platz and more exploratory conversations related to the Station Altona site.

Following and partly in parallel to this first phase of test-site development, the following phases are envisioned:

- Phase 2: Establishment of an additional multifunctional hub in the eastern, dense area of Altona that will serve as an entry point for the inter-hub traffic of freight, as well as conceptualisation and test of inter-hub traffic;
- Phase 3: Integration of a large industrial area in Altona and the TEN-T corridor (A7) through implementation of multi-functional hubs in suburban areas of Altona.

In the first year of the project, potential external partners (i.e. stakeholders that are not direct beneficiaries in MOVE21) have mostly been involved through bilateral conversations during which, among others joint interests, potential contributions and innovative ideas have been discussed. For a particular stakeholder group, i.e. larger parcel services, a workshop has been organised. With some partners, collaboration has already been agreed (e.g. SAGA for the test site Holstenstraße and Logistics Initiative Hamburg for the ICCP), while in other cases conversations are still ongoing. An open call for proposals for the social and cultural actors regarding this use in Holstenstraße is being considered. So far, citizen have been involved for one test site in an initial engagement process. More comprehensive citizen engagement events are planned for the following months.

5.4 Challenges and barriers related to the creation of organisational models

Four challenges and barriers related to the creation of the organisational model have been identified:

1. Connecting distinct fields of passenger mobility and freight transport in the Living Lab organisational model;
2. Implementing the Living Lab organisational model within existing network and organisational settings in the city, and inviting quadruple helix stakeholders;
3. Establishing clear roles in the Living Lab organisation;
4. Sustaining the Living Lab organisational model beyond MOVE21 project.

These challenges are detailed below.

5.4.1 Connecting distinct fields of passenger mobility and freight transport in the Living Lab organisational model

The basic challenge that all Living Labs are confronted with lies at the centre of the MOVE21 project, which is that passenger mobility and freight transport are two distinct fields, both in terms of their activities and in terms of their socio-technical ecosystems. This means there are different organisations, disciplines and cultures in these distinct fields, with their own actors, technologies, data-management practices, and perceived needs. As a result of these (and other related) differences, creating organisational models that span these boundaries is a challenge that requires a significant amount of time and effort. Each of the three Living Labs has confronted this challenge and they have developed slightly different ways of dealing with it, ranging from the concept-oriented approach to developing more focused partnerships in Oslo to the formal embedding of the broader, strategy-oriented ICCP in existing networks in Hamburg. At this point it is impossible to state with any certainty how these different approaches will evolve, and whether or not the organisational models will prove to be sustainable beyond the lifetime of the MOVE21 project.

However, it does seem likely that the different approaches pursued in the Living Lab cities pose different kinds (and levels) of challenges regarding long term stability. For example, Oslo sees the possibility of sustaining the ICCP both on the level of the partnership as such as well as on the level of the concepts, linked to focused partnerships, with a limited number of partners involved. The concept approach appears highly contingent on the success of the specific interventions developed within MOVE21, meaning that if one or more of the interventions does not turn out to be financially sustainable, any kind of long-lasting partnership around that concept (i.e. intervention) is uncertain to persist. In Gothenburg the connection has been made to two partnerships – the Gothenburg Climate Partnership (GCP) and the Gothenburg Green City Zone (GGCZ) – that needs further dialogue how the partnerships can potentially take a role in further sustaining the Living Lab. The approach in Hamburg, with its emphasis on an existing entity, is not necessarily contingent on the success or failure of any discrete intervention or hub. A challenge there could be that the choice for the Logistics Initiative as the organisational “home” for the new working group inevitably prioritises access for logistics-oriented partners, and is likely to create ongoing challenges for mobility-oriented organizations to fully participate in the ICCP as “equals.” In order to address this challenge, the Task Force Hamburg has established contact with a second existing partnership focusing more on people mobility, with the intention to address the integration of transport of people and freight in both working groups. At the same time, the Task Force will build up on existing contacts and exchanges with mobility actors to reduce the potential imbalance. These challenges are a little more than speculation at this point and each Living Lab appears to have carefully sought to minimise and weigh challenges and advantages of various models as they developed theirs – also taking in actions to further detail the organisation model in the future.

5.4.2 Implementing the Living Lab organisational model within existing network and organisational settings in the city, and inviting quadruple helix stakeholders

A next challenge experienced by the Living Labs relates to network formation, i.e. the selection of stakeholders in the ICCP and the relationship to existing initiatives in each of the cities. The Living Labs all take place in cities with dense networks of sustainability-related initiatives and organisations. The development of an organisational model in this context, without duplicating existing efforts but maintaining the core focus of MOVE21 related to bridging logistics and mobility, is difficult. A challenge lies in examining where MOVE21 topics, initiatives, and needs fit existing network and organisational settings best. Typically, there is not one particular setting that covers all MOVE21 topics, initiatives, and needs, so multiple existing initiatives, networks, and organisations may be an eligible fit. The Living Labs have sought to meet the challenge in compelling and contextually specific ways. The organisational diagrams (Figure 3, Figure 4, Figure 5) and especially the detailed tables in Annex B reveal some of the differences in terms of the range of (types of) organisations that have been engaged in the development of the organisational models in each of the cities. Broadly, all Living Labs have a strong presence of local public entities, with Oslo having perhaps more of a focus on SMEs, Gothenburg a regional economic development concentration, and one of Hamburg's distinctive features being the important role played by a sub-municipal district. Again, none of these approaches to dealing with the challenge of network formation in an institutionally dense context is inherently superior or guaranteed to succeed. Additionally, it appears to be difficult for the Living Labs to involve stakeholders outside the set MOVE21 partners in the ICCP. This has to do with the fact that attention must be paid to relevant external stakeholder contributions beyond the MOVE21 partner scope, which takes analysis time. Moreover, when relevant stakeholders are in view, they must be tied to the ICCP in a way other than by means of financial incentives, which requires insight into the added value of stakeholders participating in the ICCP and persuasiveness. Of importance here is the engagement of all quadruple helix entities, described as a requirement in the Grant Agreement, which turns out to be a challenge in the Living Lab practice, taking more time and effort, beyond the first year of the set-up.

5.4.3 Establishing clear roles in the Living Lab organisation

Another important challenge related to the development of an organisational model for each of the Living Labs has consisted in the definition of clear roles for relevant stakeholders, both in terms of securing firm commitments (even though the Living Labs do not account for financial means or incentives to participate in it) and in terms of the role of less organised but important broader community of stakeholders. This challenge relates to the focus in the Grant Agreement on the (relatively rapid) development of organisational structures like the Task Force, ICCP, and the broader Living Lab. While the Grant Agreement provides ample (at times seemingly overwhelming) guidance on the development of these broader structures, the Task Force members have expressed a common desire for more practical information and guidance related to implementation and to dealing with tangible interventions in the urban fabric. For example, by now, questions arise on the involvement of citizens in the Living Labs' ecosystems and who is responsible for initiating and sustaining that, i.e. who ensures that a connection is made and maintained between innovative solutions developed in the Living Lab and the (future) end users. This desire for clearer roles in living lab operations provides a clear indication of the progress towards implementation that the Living Labs have made during the first year of the project, but also suggests an opportunity for increased communication between the Living Labs and Work Packages in the MOVE21 consortium.

5.4.4 Sustaining the Living Lab organisational model beyond MOVE21 project

A final challenge concerns sustaining the organisational model beyond the lifespan of the MOVE21 project. This requires firm commitment of stakeholders involved and secured financial means beyond

MOVE21. The institutionalisation of collaboration as-is (cf. the organisational diagrams in Figure 3, Figure 4, Figure 5) is largely contingent on the development of local test sites or concept initiatives and the involvement of local stakeholders herein. Also, in all Living Labs first steps have been taken to explore cooperation with existing partnerships, with different levels of intensity related to cooperation in future. If initiatives within the MOVE21 lifespan turn out to be successful and sustainable, both in terms of contribution to the set Living Lab vision and mission and in terms of financing strategy and business model, the chance of institutionalisation of collaboration beyond MOVE21 is higher.

6 Vision and mission

The MOVE21 Grant Agreement outlines a clear, if broad, vision for the Living Labs, namely to transform European cities and functional urban areas into climate-neutral, connected multimodal urban nodes for smart and clean mobility and logistics. Within each of the Living Labs, this broad vision required translation and adjustment to the more specific local situations, policies, and stakeholder interests. While the overarching MOVE21 vision has remained central to each Living Lab's development, each city has tailored its approach. The next sections outline the processes and resulting visions and missions that have been proposed in the Living Lab cities, with particular attention to relevant differences in approach and emphasis.

6.1 Vision and mission Oslo Living Lab

The overall goal of the Oslo Living Lab is to contribute to the Climate Strategy for Oslo towards 2030 (2020)⁶ which is a central policy strategy in Oslo, and to help achieve its ambitious climate targets but also the target of traffic reduction by one-third by 2030 compared with 2015. The goals of the Oslo Living Lab support the city goals and MOVE21 goals. These goals have been formulated primarily within the Task Force, led by the Living Lab manager in Oslo. The basis for this set of goals was developed as the Oslo Living Lab has spent time understanding the city's needs and challenges. In September 2021, the Living Lab organized a workshop with the members of the ICCP, during which these organisations could express interest in specific challenges or opportunities related to mobility, logistics, and emissions reduction. This workshop formed the basis of the focus on concept development within the broader Living Lab, but also directly informed the goals pursued within the Living Lab. An important challenge that also came up based on these discussions is related to the optimization of the use of existing infrastructures and land use. Solving this challenge will be important to reach the goals that have been defined for the Oslo Living Lab.

In addition, the Oslo Living Lab has operated with the vision stated in the MOVE21 Grant Agreement. This vision is very similar to the goals in the Climate Strategy for Oslo towards 2030. Specifically, the Grant Agreement calls for the transformation of Oslo into a climate-neutral, multimodal urban node for smart and clean mobility and logistics. It is important to mention that the Oslo Living Lab is a collaboration platform, with a desire to develop an ecosystem of solutions that communicate across industries and business areas. As a result of this approach, concept and/or test-site specific goals or criteria for success will be formulated as these mature.

6.2 Vision and mission Gothenburg Living Lab

The vision of the Gothenburg Living Lab is to transform Gothenburg into a smart zero-emissions node for mobility and logistics. The Gothenburg Task Force developed this mission in conversation with other organisations of relevance. In addition to the MOVE21 grant agreement, this vision is informed by several relevant strategies and policy documents at the municipal level, specifically:

- Traffic strategy (2014)⁷;
- Urban environment and climate programme 2021-2030⁸;

⁶ Link to document (short version), [Klimastrategi2030-Kortversjon-ENG_2608_enkeltside.pdf \(klimaoslo.no\)](#)

⁷ More information via the website, [Göteborgs trafikstrategi](#).

⁸ Link to document, [Miljö- och klimatprogram för Göteborgs Stad 2021-2030](#).

- Urban business programme 2018-2035⁹.

In addition to this broad vision, the Gothenburg Living Lab is working closely with other partners in the ICCP to develop specific missions for the test sites under development within the project. Two test-site specific workshop series have been conducted, the first workshop organised per test site focusing on needs and challenges, the second workshop on concepts to pilot. The outcomes of the workshop series have been used to develop the missions per test site. These specific missions remain under development, as practical considerations related to each of the test sites are worked out and further detailed. At the moment, the tentative missions for each of the test sites are as follows:

- The **Nordstan** district is a hub for sustainable travel and deliveries in central Gothenburg. The area is safe and secure for all modes of traffic and it is easy to find your way.
- **Klippan/Jaegerdorffsplatsen** is a multimodal hub for public transport, walking, cycling, and parking that creates life and activity in the area. Different means of transport are well connected and it feels safe and secure for everyone to move in the area.
- Transport and infrastructure works in **Lindholmen** have decreased due to a streamlining of existing infrastructure and transport resources. Goods and deliveries are coordinated, and waterways are used. The area feels alive and safe at all times of the day.

These aspirations reflect the broader socio-technical ambitions related to the development of hubs in the Gothenburg Living Lab, particularly related to perceptions of safety and vibrancy. The inclusion of stakeholder needs in the development of these site-specific missions is important to mention in this context. This diversification of goals, as compared to the broad mission of the Grant Agreement, reflects the significance of attention to the complexities of implementing physical interventions (like hubs) in existing or developing geographies like neighbourhoods or districts. At that scale, stakeholders clearly express more holistic aspirations for the future than a narrow set of idea(l)s related to mobility and/or logistics.

6.3 Vision and mission Hamburg Living Lab

The overall vision and mission of the Hamburg Living Lab is to contribute to the reduction of traffic and CO2 emissions. In order to achieve this overall objective, the Living Lab Hamburg has set itself a series of distinct but related goals, mostly directly informed by the MOVE21 Grant Agreement, but specified and contextualized in several ways:

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

These goals were formulated within the Task Force primarily through a series of internal workshops and informed by several relevant strategies and policy documents at the municipal and district level, as well as interactions with local stakeholders. As a result of these interactions, and in addition to the mission of the Living Lab, the Task Force has formulated a set of discrete, more organisational aspirations and

⁹ Link to document, [Göteborgs Stads Näringslivsstrategiska program](#).

expectations related to the ICCP. Their distinctive characteristics and emphasis on continuity beyond the MOVE21 grant period makes it relevant to list them in full:

- The ICCP provides the “breeding ground” for integrated mobility and logistic innovation and support their implementation.
- The ICCP acts as advisor, supporter, and networker in the manifestation of the MOVE21 objectives locally.
- Based on its know-how and broad network, the ICCP supports the transition to sustainable urban mobility and logistic locally.
- The ICCP
 - Strengthens local acceptance and anchoring of MOVE21;
 - Operates an active network;
 - Supports exchange and takes on an advisory role based on its expertise;
 - Supports the development and implementation of integrated mobility and logistic innovations;
 - Upscales and replicates successful innovations further beyond the project duration.
- The ICCP actively contributes to reaching the objectives of MOVE21 through:
 - Involving and exchanging with local stakeholders;
 - Working in a transparent and result-oriented way;
 - Paying due attention to different interests;
 - Testing the market readiness of innovations;
 - Developing own business cases and solutions based on the approaches of MOVE21.

This vision for the ICCP reflects the effort of the Hamburg Living Lab to embed the interactions facilitated by MOVE21 in persistent organisational structures and patterns. While each test site has specific characteristics and contributes to the overall objectives in a specific way, no test-site specific vision and mission have been developed at this stage in the process. If developing site-specific visions and missions appears to be helpful for further stakeholder engagement or development of the test sites, the Task Force may still decide to pursue such an approach.

6.4 Challenges and barriers related to the development of visions and missions

Three challenges and barriers related to the development of visions and missions have been identified:

1. Connecting the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities;
2. Anticipating changes in visions and missions over time due to stakeholder involvement;
3. Anticipating the feasibility of visions and missions given existing governance structures and decision-making about passenger mobility and freight transport in the city.

These challenges are detailed below.

6.4.1 Connecting the vision and ambitions of the MOVE21 project and local conditions, challenges, and opportunities

The development of a shared vision for each of the Living Labs, and particular mission(s) for those entities and, in one case, for each of the testable concepts, has not encountered profound challenges. The Task Forces of the Living Labs took responsibility for vision and mission development in the first year. As is common with vision development, challenges more frequently emerge as the visions move towards implementation. One broad challenge that appears worth pointing out here is the fluidity related to organisational models and test-site locations and specifics. In other words, the visions all operate within (and adhere to) the broader goals of the MOVE21 project, but local conditions have continually forced adjustments to specific choices within each Living Lab to bring those visions to life. This tension,

between the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities will likely persist throughout the project. As the Living Labs, and especially the Task Force members, navigate this double bind, ongoing communication between the Task Force members and various other elements within the MOVE21 community will continue to be important, with a particular emphasis on the profound and practical implementation challenges likely to be faced by the Task Forces in the next phase of the project. As the vision and mission development has been primarily the responsibility of the Task Force, the question is whether there is sufficient consensus about this among all ICCP participants.

6.4.2 Anticipating changes in visions and missions over time due to stakeholder involvement

In addition, local conditions, challenges, and opportunities in the Living Lab are likely to change over the lifespan of MOVE21. Current test-site or concept specific visions and missions are established based on input of already involved stakeholders. Yet, during the years 2 to 4 of MOVE21, it may be concluded that a certain stakeholder entity is underrepresented in the Living Lab governance and hence invited. New stakeholders may bring new ideas on vision and mission development to the table, which may conflict with existing ones.

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

Finally, there is also the challenge of matching vision and mission development to existing decision-making structures for passenger mobility and freight transport. As already mentioned earlier, these two distinct fields, both in terms of their activities and in terms of their socio-technical ecosystems, stand for different organisations, disciplines and cultures, with their own technologies, data management practices, and perceived needs. In order to establish short or mid-term strategies or changes in policies that foster the realization of solutions that have been tested and/or developed by the Living Labs, a strong will for change is needed among actual decision makers. Particularly in the public sector, where responsibilities are clearly assigned and separated from each other, this could hinder fast transformations and achievement of the Living Labs' missions. Hence, feasibility is a relevant issue to discuss in vision and mission development.

7 Financing strategy and business model(s)

The development of a financing strategy and business model can take place at two distinct levels within the MOVE21 project. The first is the level of the Living Lab, where sources and flows of resources are created, (re-)directed, or combined to enable the entire organisational model of the Living Lab to persist beyond the lifetime of the MOVE21. At this level, the continuation of discussions at the level of the city-wide Innovation Co-Creation Partnership is a central element of the strategy or model. The second level at which one or more financing strategy(-ies) and business model(s) can be developed is at the level of the specific concept or test site, meaning that the intervention(s) tested, developed, and/or implemented during MOVE21 can persist independently from the resources made available during the lifetime of the grant.

The expectation that each Living Lab has developed an initial business model (as outlined in Figure 1 in this report) relates primarily to the Living Lab as a whole. At the time of writing this report, the Living Labs have not yet made great progress on developing this initial business model at the level of the Living Lab. However, the Living Labs have generally made significant progress in developing initial business models at the conceptual or test-site level. The operationalisation of the business models (foreseen in year 2) has not been incorporated into this report, as it is premature at the time of writing.

7.1 Financing strategy and business model(s) Oslo Living Lab

The long-term stability of the Oslo Living Lab, as an independent organisation, network or (set of) partnership(s), is directly connected to the success of the concepts that are currently being developed within MOVE21. The focus of the Oslo Living Lab is on developing concepts which in future (after the MOVE21 project) can become financially independent and enduring partnerships, meaning no (further) public funding (as a single source) will be required for their operations and management. We however do foresee, that in the developing and testing phase, additional (public) funding is needed as seed money to give a kick-start to the testing of the concepts. As a result of this approach, most attention regarding financial sustainability has been devoted to preparing and analysing business models for the selected concepts, namely:

- 1) The expansion of an existing mobility on demand shuttle service to incorporate freight;
- 2) The integration of micro-mobility with public transportation;
- 3) Securing seamless urban logistics within the zero-emission zone; and
- 4) The deployment and connection of a network of mobility hubs.

Each of these concepts requires meaningfully different levels and sources of funding to achieve the kind of financial sustainability that is sought. The specific partner organisations involved in the development of each of these concepts jointly develop the business model, with one or more Task Force members taking a lead role within each concept development team.

The development of the business models at the concept level has revealed some commonalities, especially the need for extensive data sharing (and the connected agreements to facilitate it). Some concepts, like the integration of micro-mobility with public transportation and the deployment of a network of mobility hubs, raise questions about the nature and extent of public and/or private service delivery and associated investments.

7.2 Financing strategy and business model(s) Gothenburg Living Lab

The Gothenburg Living Lab seeks to find stable sources of resources to cover the operational costs for coordinating the partnership (at the ICCP level) after the lifetime of the MOVE21 project. At the moment, the strategies to obtain those resources include seeking to secure municipal strategic funding, in-kind contributions (through working hours) of participating stakeholders, and potentially additional public funding from various levels of government outside of the municipality of Gothenburg. There is a strong tradition of cooperation and innovation in Gothenburg, frequently taking the form of network or virtual organisations with a backbone of municipal funding and in-kind participation from participating stakeholders, including non-governmental entities. The existence of this tradition, and the dense network of (virtual) organisations that results from it, is both an opportunity and a challenge for the long-term stability of the ICCP in Gothenburg. The opportunity consists of the fact that this model is known and widely accepted in the region, creating an appropriately high level of confidence among MOVE21 partners in Gothenburg that this is a viable way forward. The challenge that exists lies in the density of existing organisations and networks with similar, sometimes overlapping, goals and missions, which means that the choice to create a novel network needs to be weighed well. Conversations with (members of) these networks are ongoing to determine the appropriate organisational context for the continued interactions that MOVE21 facilitates, but no formal decisions in this regard have been made at the time of writing this report.

7.3 Financing strategy and business model(s) Hamburg Living Lab

The Hamburg Living Lab has devoted a significant amount of time and attention to the creation of a durable and embedded model of the ICCP within the Logistics Initiative Hamburg (see Figure 6). During the project duration, the organisation of the newly developed working group (including its initiation, content, and organisational meeting preparations and meeting venues) will be partly financed by MOVE21 (mainly through staff working time). Already during the lifetime of the project, both the Logistics Initiative Hamburg and the Ministry of Economy and Innovation financially support the working group and as things stand at present will continue to do so after the end of the project. Since several partners are already members of the initiative, the newly created working group will not require significant additional resources from those entities. Other partners will have to join the Logistics Initiative in order to participate fully in the working group, but the expectation is that limited additional resources will be required to do so, mainly in terms of staff time and related membership commitments.

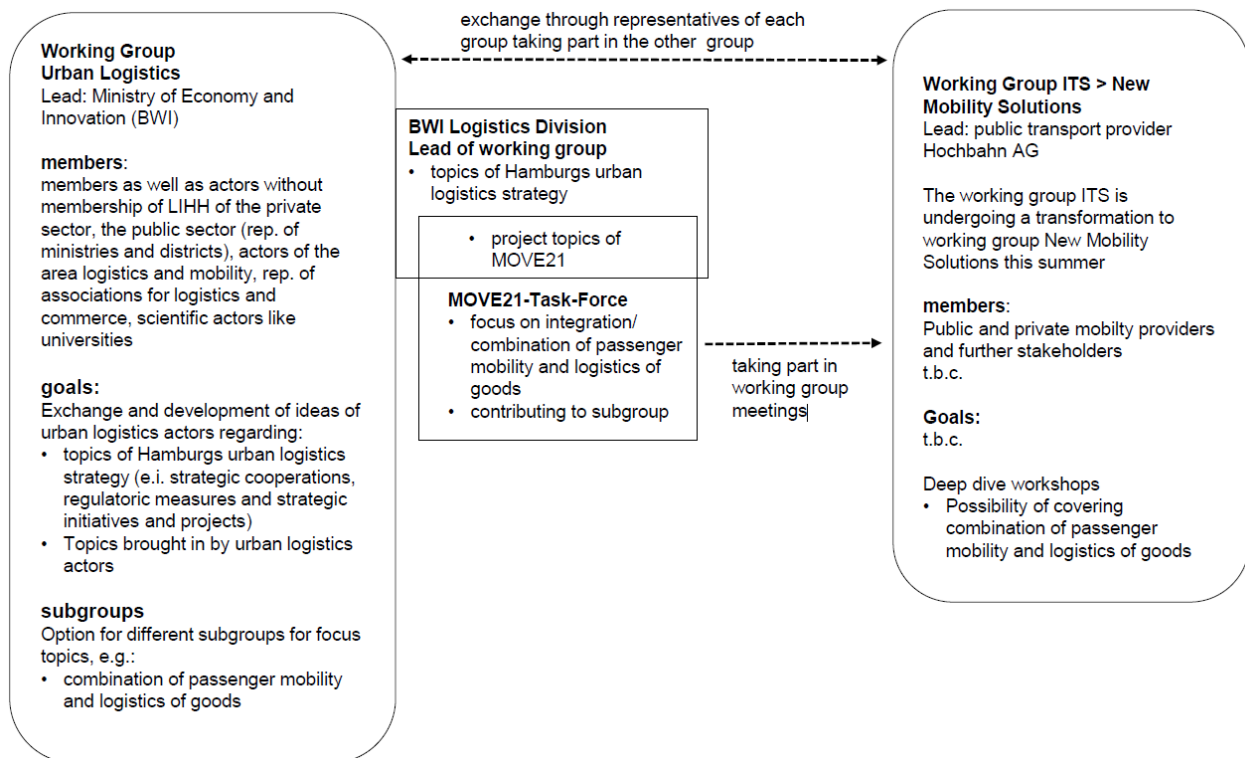


Figure 6 – Sustaining the ICCP approach in Hamburg ¹⁰

The long-term resources for the “implementation-oriented” ICCP in Hamburg, which consists of more locally focused and frequently smaller and more informal organisations and representatives, cannot yet be described in detail as these partnerships are still to be fully established. As this partnership is centrally focused on the specific interventions in Altona, the expectation is that directly engaged organisations will remain committed to their ongoing success.

7.4 Challenges and barriers related to the development of financing strategies and business models

Two challenges and barriers related to the development of financing strategies and business models have been identified:

1. Developing and connecting realistic financing strategies and business models for both the ICCP and (local) interventions/concepts/solutions;
2. Engaging stakeholders in the Living Lab without offering financial incentives.

These challenges are detailed below.

7.4.1 Developing and connecting realistic financing strategies and business models for both the ICCP and (local) interventions/concepts/solutions

The challenges and barriers related to developing financing strategies and business models have been multiple and all three Living Labs have encountered the difficulty in connecting the broader questions about the future of the ICCP to the challenges specific to particular interventions/concepts/solutions. Reflections on realistic finance strategies and business models beyond the lifetime of the MOVE21 project are still in its infancy. In Hamburg, the broader ICCP appears likely to have developed an

¹⁰ Drafted by the Task Force Hamburg (May 2022).

approach to a basic level of access to continued resources to enable cross-cutting dialogues between logistics and mobility-oriented organisations in the Logistics Initiative Hamburg (LIHH) working group. Gothenburg's Living Lab continues to make progress towards a similar embedded approach at the strategic level. Oslo's approach to sustained financing is focused on a "twin-track strategy", on the level of the Living Lab (where limited progress has been made) and on the level of the concepts (where main efforts have been taken), with emphasis on the practical success(es) at the concept level and the expectation that durable partnerships will emerge from those. As mentioned before, each of these approaches carries different levels and types of challenges and next steps will likely include ongoing communication about these to assess success (and potentially failure) as these occur.

7.4.2 Engaging stakeholders in the Living Lab without offering financial incentives

Additionally, a frequently mentioned challenge in reflecting on business models is the lack of financial resources within the MOVE21 Living Labs. This challenge can be further specified on the basis of two perspectives: the overall partnership level and on the level of involving stakeholders from the local innovation ecosystem.

When it comes to an overall partnership level, the operational costs for coordinating a partnership after the lifetime of the project is something that still needs further elaboration. This relates to questions on how to connect to additional partnerships (beyond those already mentioned in the GA) and groups of stakeholders, and questions on looking for ways to jointly fund such a future partnership without only organizing public funding.

Furthermore, there are no specifically appointed additional funds for procurement, development of buildings and infrastructure that directly link to the innovations in MOVE21. The Living Labs see a challenge in inviting the local innovation ecosystem to participate in developing and testing solutions on their own dime, and also to "demand" access to results, data etc. This relates to questions on how to organize the public-private cooperation linked to business models in the Living Labs, how to use or not use financial incentives in engaging stakeholders.

This raises questions as to the engagement and (long-term) commitment of stakeholders to initiatives developed within MOVE21 when financial incentives are not (yet) in place.

8 Challenges and next steps

In this chapter, we flesh out what next steps are needed for the further development of the Living Labs and their ICCPs to go from Set-up (Year 1) to Maturing (Year 2) and Stabilising (Year 3 and 4). In chapters 5, 6 and 7 challenges and barriers related to respectively the creation of organisational models, the development of visions and missions, and the development of financing strategies and business models have been identified. Based on these identified challenges, next steps for maturing and stabilising the Living Labs are suggested. The table below (Table) provides an overview of identified challenges and next steps.

Table 1 – Overview of identified challenges and next steps for sustaining the Living Labs beyond the lifetime of the project

Category	Identified challenges	Next steps & links to MOVE21 WPs
Organisational model	1. Connecting distinct fields of passenger mobility and freight transport in Living Lab organisational model	WP6 with Living Labs (Task Force) in cooperation with WP4, making the connection to relevant stakeholders, as well as the relation to policy coherence (cooperation across different fields). Knowledge exchange and capacity building events organised in WP7 (particularly on integration of logistics with passenger transport solutions).
	2. Implementing the Living Lab organisational model within existing network and organisational settings in city, and inviting quadruple helix stakeholders	Link to WP3 (digital surveys linked to stakeholder involvement), WP4 (input on organisational settings in the city), and WP10 (local communication plans lined to stakeholder involvement and outreach).
	3. Establishing clear roles in Living Lab organisation	Link to WP4 – webinar on “The role of municipalities in innovation projects” (organised as part of WP7 knowledge exchange and capacity building programme).
	4. Sustaining Living Lab organisational model beyond MOVE21 project	Link to WP4 and WP6; further coordination on elaboration of support needed.
Vision and mission	1. Connecting the vision and ambitions of the MOVE21 project (as expressed in the Grant Agreement) and local conditions, challenges, and opportunities	WP6 with Living Labs (Task Force), further operationalizing the vision and ambitions of MOVE21 to the local situation.

Category	Identified challenges	Next steps & links to MOVE21 WPs
	2. Anticipating changes in visions and missions over time due to stakeholder involvement	WP6 with Living Labs (Task Force), with input from the support of WP3/WP4/WP10 related to stakeholder involvement.
	3. Anticipating the feasibility of visions and missions given existing governance structures and decision-making about passenger mobility and freight transport in city	WP6 with Living Labs (Task Force), related to the themes of policy coherence and innovation capacity, in cooperation with WP4.
Financing strategy and business model	1. Developing and connecting realistic business models for both ICCP and (local) interventions/concepts/solutions	Link to WP4 and WP6; further coordination on elaboration of support needed. Knowledge exchange and capacity building events organised in WP7 (particularly on business models for hubs and new mobility solutions). Link to WP9 on supporting the Living Labs with business plan development.
	2. Engaging stakeholders in Living Lab without offering financial incentives	Link to WP4 – webinar on “The role of municipalities in innovation projects” (organised as part of WP7 knowledge exchange and capacity building programme).

In addition to the next steps as outlined per identified challenge, it makes sense to also identify specific questions and challenges that need to be addressed to support the Living Labs and the ICCP's in this process. These include:

- MOVE21 Work Packages (and their leaders) need more specific understanding of implementation contexts and challenges encountered by Living Labs, in order to make their support more impactful. Support will be part of the knowledge brokerage process between WP3, WP4, WP5 and WP6/Living Labs. This process is ongoing and will actively build on the Integrated City Assessment reports (D6.2/D6.3/D6.4), also and related to the challenges mentioned above.
- Reflective monitoring, e.g. meeting observation protocols and exit surveys, need to be executed (i.e. filled out) and returned in order to facilitate further reflections and learning (WP6). This also relates specifically to the next phases in the Living Lab and ICCP development (Stage 2 – Maturing, Stage 3 – Stabilising) as well as working on sustaining the Living Labs and ICCP's beyond the lifetime of the project.

9 References

Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., Marvin, S., McCormick, K., Van Steenberghe, F., Palgan, Y.V. (2016). Urban living labs: governing urban sustainability transitions, *Current Opinion in Environmental Sustainability*, 22: 13–17.

EIT Urban Mobility (2021). *Knowledge base of innovative solutions in urban mobility and living labs: Final report*. Retrieved on 10 June 2022 from [EITUrbanMobility_Living_labs_report_update_July2021-1.pdf](#).

European Commission (2019). *The European Green Deal*. Retrieved on 10 June 2022 from [EUR-Lex - 52019DC0640 - EN - EUR-Lex \(europa.eu\)](#).

European Commission (2020). *Sustainable and smart mobility strategy: Putting European transport on track for the future*. Retrieved on 10 June 2022 from [EUR-Lex - 52020DC0789 - EN - EUR-Lex \(europa.eu\)](#).

Finland's EU Presidency (2006). *The Helsinki Manifesto*. Retrieved on 10 June 2022 from [Helsinki Manifesto 201106 by European Network of Living Labs - Issuu](#).

Gascó, M. (2017). Living labs: Implementing open innovation in the public sector. *Government Information Quarterly*, 34(1), 90-98.

MOVE21 (2021). *Project Handbook*. Project deliverable D1.1, July 2021, Grant Agreement No. 953939 [Confidential].

Schuurman, D. (2015). *Bridging the gap between open and user innovation? Exploring the value of Living Labs as a means to structure user contribution and manage distributed innovation*. Doctoral dissertation, Ghent University.

Schuurman, D. & Protic, S. M. (2018). Living labs versus lean startups: An empirical investigation. *Technology Innovation Management Review*, 8(12), 7-16.

Zavratnik, V., Superina, A., & Stojmenova Duh, E. (2019). Living labs for rural areas: Contextualization of living lab frameworks, concepts and practices. *Sustainability*, 11(14), 3797.

Annex A – D6.5 Template for Living Lab cities

D6.5 Living Lab Establishment Report

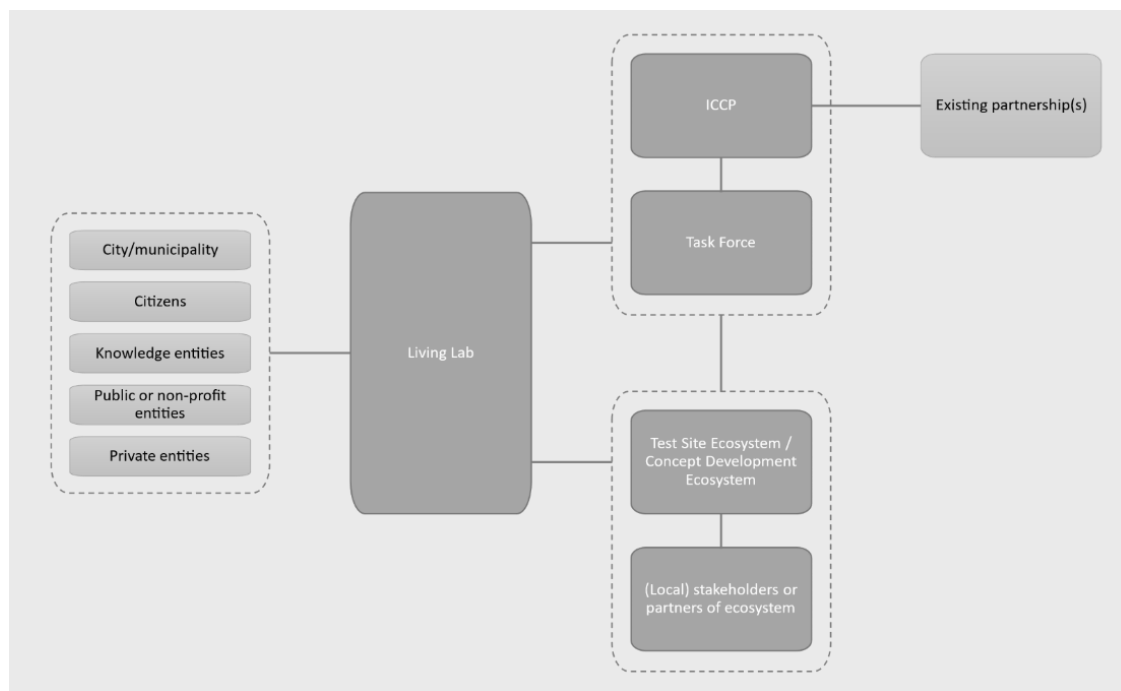
Questionnaire format to describe the (1) organisation model, (2) vision and mission and (3) financing strategy and business models of the Living Lab as-is (situation spring 2022)

1. Organisation model

- What are the most important actors currently involved in the Living Lab, both on Living Lab level and on Test Site or Concept Development Ecosystem level, and to which broader Living Lab entities do these actors belong?
- What are the current roles of these actors?
- What are the current activities employed by these actors in relation to their roles?
- What does the (periodic) meeting structure or contact moment structure of these actors look like?

A. Actor name	A. Actor level	A. Actor entity	B. Role	C. Activities	D. (Periodic) meeting structure
<i>Insert name</i>	<i>Choose level:</i> <i>Living Lab level</i> <i>Test Site Ecosystem level</i> <i>Concept Development Ecosystem level</i>	<i>Choose entity:</i> <i>Task Force</i> <i>ICCP</i> <i>Test Site Ecosystem</i> <i>Concept Development Ecosystem</i> <i>(Local) stakeholders or partners of ecosystem</i> <i>Existing partnership(s)</i>	<i>Insert answer</i>	<i>Insert answer</i>	<i>Insert answer</i>
<i>Insert rows if necessary</i>					

- The Figure below provides for a (simplified) representation of the governance scheme for the Living Lab. Does this figure represent the Living Lab's current organisational model? Please complete and/or change the figure as you see fit to best represent the current organisational setup: e.g. add names of actors and relationships between actors, change hierarchies, etc.



Insert a figure/picture/sketch/drawing of the updated governance scheme

F. How has the organisation model been developed and established with reference to the Task Force, ICCP, Test Site or Concept Development Ecosystem and existing partnership(s)? Please describe the most important process steps for period May 2021 to May 2022.

Living Lab entity	Most important process steps for organisation model development and establishment
Task Force	<i>Insert answer</i>
ICCP	<i>Insert answer</i>
Test Site or Concept Development Ecosystem	<i>Insert answer</i>
Existing partnership(s)	<i>Insert answer</i>

G. What are challenges and/or knowledge gaps with regard to the organisation of the Living Lab?

Insert answer

2. Vision and mission

A. What is the overall vision and the mission of the Living Lab?

If the vision and the mission are Test Site or Concept Development Ecosystem-specific, please specify.

Insert answer

B. Who has been involved in developing this vision and mission?

Insert answer

C. How have the vision and mission been developed, i.e., what activities have been employed to develop those?

Insert answer

D. What is the purpose of developing a vision and mission for the Living Lab?

Insert answer

E. How does the vision and mission of the Living Lab relate to those of existing partnership(s), i.e., organisation(s) where the Living Lab can be embedded in the future, after the MOVE21 project?

Insert answer

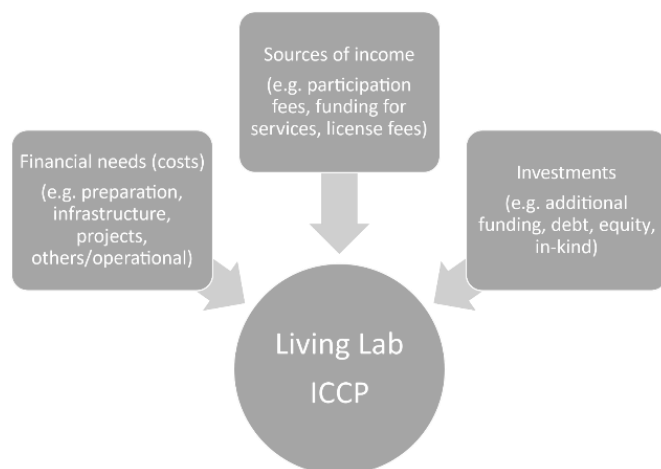
F. What are challenges and/or knowledge gaps with regard to the development of a vision and mission for the Living Lab?

Insert answer

3. Financing strategy and business models

A. What is the current status of thinking on the financing strategy and business models for the Living Lab, within and beyond the lifetime of the MOVE21 project? See the Figure below for things that may be currently considered:

- What financial needs (costs) are expected?
- What sources of income have been reviewed?
- What investments can be expected?



Insert answer:

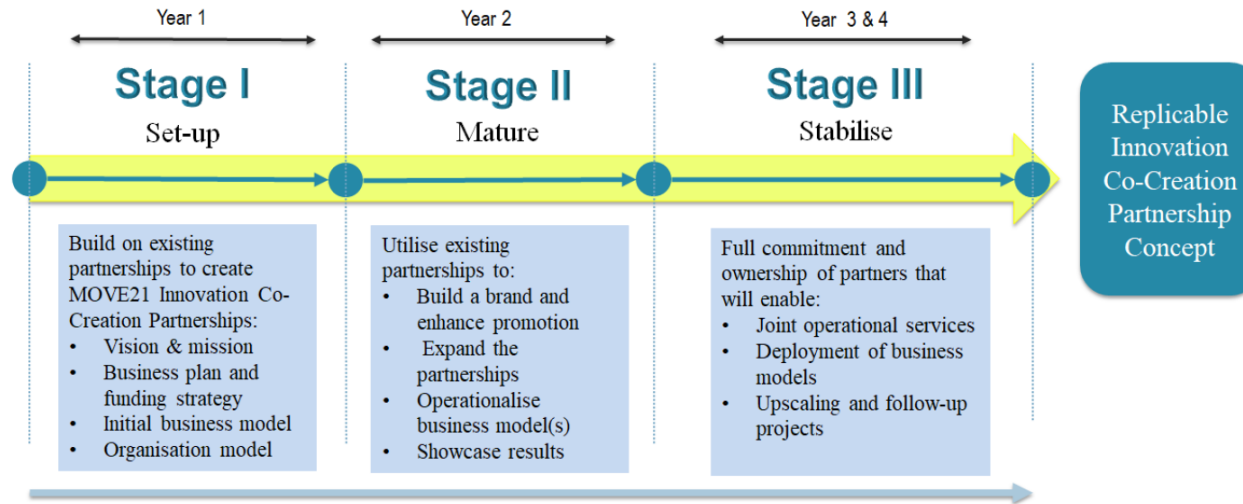
- *Financial needs (costs)*
- *Sources of income*
- *Investments*

B. How does the financing strategy and business models for the Living Lab relate to those of existing partnership(s), i.e., organisation(s) where the Living Lab can be embedded in the future, after the MOVE21 project, and what possibilities (or limitations) does that yield?

Insert answer

C. What are challenges and/or knowledge gaps with regard to the development of a financing strategy and business models for the Living Lab, also with an eye on phase 2 and 3 of the Living Lab? See also the Figure on Living Lab phases below.

Insert answer



Continuous monitoring to ensure an iterative process that is based on the needs of the participants from start to finish

Annex B – Organisational model: actor overview per Living Lab

Table A 1 – Organisational roles, activities, and interactions in Oslo Living Lab

<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
Office of the Governing Mayor, City of Oslo	- Overall - ICCP	Project coordinator	Head of City Government, Policy maker, policy coordinator for Oslo City Government	Policy coherence and coordination, innovation capacity, Scan-Med corridor	ICCP, otherwise as needed
Department of Environment and Transport, City of Oslo	ICCP	ICCP	- City Government department - Policy maker	Mobility and urban logistics policy, policy coherence, policy priorities for urban transport	ICCP, otherwise as needed
Agency for urban environment, City of Oslo	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	- Provide professional knowledge regarding mobility and urban logistics - Living Lab manager - Local road authority - Responsible for Oslo FSULP and ZEZ	- Contributing professional knowledge, infrastructure, regulation - Managing all Living Lab activities	Task Force, ICCP
Climate Agency, City of Oslo	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	- Secure right climate focus for the living lab - Communication - Regulation - Governance innovation	Monitoring and measuring climate effects in all Living Lab concepts	Task Force, ICCP

Department of Health, Ageing and Municipal Services, City of Oslo	Living Lab	Stakeholder	Financing existing mobility on-demand for seniors pilot (<i>"RAT/Rosa busser"</i>)	Monitoring activities	When need arises
Agency of improvement and development, City of Oslo	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem	Secure that LL follows procurement rules	- Procurement on conceptual level - Procurement on LL level - Strategy	ICCP, Task Force when the need arises
Ruter	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	- Responsible for public transportation - Secure right work within mobility	- Development of living lab - Concept development	Task Force, ICCP
Urban Sharing AS	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	- MaaS - Technology within micro-mobility	- Development of living lab - Concept development	Task Force, ICCP,
MIXMOVE AS	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	- Secure right logistic focus for the living lab - Technology for logistics	- Development of LL - Concept development	Task Force, ICCP

Institute for Transport Economics	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem	Analysis and assessment regarding concept development	- Development of LL - Concept development	Task Force, ICCP
Viken County	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem	- The needs of areas around Oslo - Mobility and logistics - Regulation	Concept development	ICCP
ICT-Norway	- Living Lab - Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem	Secure contact with necessary business stakeholders	- Development of LL - Concept development	ICCP
Possible new members of LL					
Norwegian Public Road Administration	- Living Lab - Concept development	- Concept development - Local stakeholders or partners of ecosystem	- Regulation - Technology	Continuous dialogue	Possible new member of the ICCP
Mustad Eiendom	- Test site level - Concept development	Local stakeholders or partners of ecosystem	- Access to area - Business model development	Part of MoD-people and freight	Possible new member of the ICCP
CCVEST	- Test site - Concept development	Local stakeholders or partners of ecosystem	- Access to area - Business model development	Part of MoD-people and freight	Possible new member of the ICCP
Minibus 24/7	- Test site - Concept development	Local stakeholders or partners of ecosystem	- Access to vehicle - Business model development	Part of MoD-people and freight	

SPEIZ	• Test site • Concept development	• Local stakeholders or partners of ecosystem •	• Access to area	• Concept development • Continuous dialogue	Possible new member of the ICCP
Urban Infrastructure Partner	• Test site • Concept development	• Local stakeholders or partners of ecosystem	• MaaS	• Part of Integration of micro mobility with public transportation	Possible new member of the ICCP
Urban Services	• Test site	• Local stakeholder	• Logistics operator	• Logistics services	Possible new member of the ICCP
Collaboration projects					
Business for Climate	• Living Lab level	• Local stakeholders or partners of ecosystem	• Communication channel to reach to stakeholders	• Workshops	
ViV	• Concept Development Ecosystem level	• Existing partnership	• Knowledge exchange	• Continuous dialogue	
STOR	• Concept Development Ecosystem level	• Existing partnership	• Knowledge exchange	• Continuous dialogue	
FSULP	• Concept Development Ecosystem level	• Existing partnership	• Knowledge exchange	• Continuous dialogue	
Zero-emission zone	• Concept Development Ecosystem level	• Existing partnership	• Guidance regarding ZEZ • Regulation	• Common concept • Continuous dialogue	
Last Mile Moss	• Concept Development Ecosystem level	• Project under preparation	• Knowledge exchange	• Common concept	

Table A 2 – Organisational roles, activities, and interactions in Gothenburg Living Lab

<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
City of Gothenburg, Urban Transport Administration	- Living Lab level - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem - Existing partnership(s)	Project partner. Gothenburg is one of the three Living Labs in the project	Coordinates Gothenburg Living Lab. Facilitation of Task Force meetings Lead of development of some of the first set of measures. Participates in development of some of the first set of measures. Advocate for WP3,4,5,8 and local communication. Coordination with relevant projects and initiatives. Contact point for all WPs and coordination of contribution for all WPs	(Executive board meetings monthly) Internal meetings with LL project manager and test site leaders weekly. Task Force meetings monthly and additional based on needs. Bilateral meetings WPL6 monthly. Not periodic but based on needs: ICCP meetings and workshops. Specific meetings on concepts. Dialogue meetings with stakeholders. Additional meetings based on needs.

RISE Research Institutes of Sweden AB	- Living Lab level - Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Task Force (from May 2022) - Concept Development Ecosystem	Project partner. RISE has three roles in MOVE21: - Leader of work on Governance Innovation - Leader of work on Innovation and Exploitation - Support to Gothenburg Living Lab	Participation in Task Force meetings. Facilitate needs and challenges assessment. Facilitate workshop on mobility hub and relevant LL topics. Facilitate workshops on idea generation. Consolidation and documentation of first set of measures Integrated City Assessment.	Task Force meetings monthly and additional based on needs. Internal meeting with MOVE21 team on monthly basis. Meetings and workshops based on needs, such as with Living Lab Gothenburg, for Integrated City Assessment Gothenburg (D6.3), WP6 coordination meetings, etc. Additional meetings based on needs.
Volvo Technology AB	- Living Lab level - Test Site Ecosystem level	- ICCP - Existing partnerships)	Project partner. As one the major vehicle manufacturers in the world Volvo Technology participates in the project with input to user needs and policy goals.	Contributes in needs assessment and idea generation. Coordination with project Smooth	Not periodic but based on needs: ICCP meetings and workshops. Additional meetings based on needs.

Business Region Göteborg AB	- Living Lab level - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem - Concept Development Ecosystem - Existing partnership(s)	Project partner. Coordination and participation in the Gothenburg Living Lab, identifying challenges, attracting solution providers, and following up on results.	Participation in Task Force meetings. Contributes in needs assessment, idea generation and concept development. Network and business intelligence. Process leader and coordination with partnerships relevant for LL sustainability; Gothenburg Climate Partnership, Gothenburg Green City Zone Lead of development of one of the first set of measures. Participates in development of some of the first set of measures.	Task Force meetings monthly and additional based on needs. Not periodic but based on needs: ICCP meetings and workshops. Specific meetings on concepts. Dialogue meetings with stakeholders. Additional meetings based on needs.
Renova Miljö AB	- Living Lab level - Test Site Ecosystem level - Concept Development Ecosystem level	- Task Force - ICCP - Test Site Ecosystem	Project partner. Renova is part of the Gothenburg Living Lab. Renova will work with development on Lindholmen regarding	Participation in Task Force meetings. Contributes in needs assessment, idea generation and	Task Force meetings monthly and additional based on needs.

		• Concept Development Ecosystem • (Local) stakeholder or partners of ecosystem	efficient transport, coordination of goods and waste and minimization of traffic in the area. It includes the development of both vehicles and logistics in collaboration with the users at Lindholmen. The vision is for the concept to be able to expand to several districts in Gothenburg, and we also see that other municipalities have the same approach.	concept development. Lead of development of one of the first set of measures.	Not periodic but based on needs: ICCP meetings and workshops Specific meetings on concepts. Additional meetings based on needs.
Göteborgs Stads Parkeringsaktiebolag	• Living Lab level • Test Site Ecosystem level • Concept Development Ecosystem level	• ICCP • Test Site Ecosystem • Concept Development Ecosystem • (Local) stakeholder or partners of ecosystem	Project partner. GOT-PARK is part of the local innovation ecosystem in the Gothenburg Living Lab.	Contributes in needs assessment, idea generation and concept development. Network and business intelligence. Participates in development of some of the first set of measures.	Not periodic but based on needs: ICCP meetings and workshops Specific meetings on concepts. Additional meetings based on needs.

City of Gothenburg, Sustainable Waste and Water U	- Living Lab level - Test Site Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem	Associated. Insight and concept development regarding sustainable waste handling.	Contributes in needs assessment, idea generation and concept development	Not periodic but based on needs: ICCP meetings and workshops. Additional meetings based on needs.
Nordstan Samfällighet	- Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem (Local) stakeholders or partners of ecosystem)	Associated. Property owner with ambitions to contribute to sustainable logistics and mobility solutions in the Nordstan test site.	Contributes in needs assessment, idea generation and concept development. Participates in development of some of the first set of measures.	Not periodic but based on needs: ICCP meetings and workshops. Specific meetings on concepts. Additional meetings based on needs.
Älvstranden Utveckling AB	- Test Site Ecosystem level - Concept Development Ecosystem level	- ICCP - Test Site Ecosystem - Concept Development Ecosystem (Local) stakeholders or partners of ecosystem)	Associated. Property owner with ambitions to contribute to sustainable logistics solutions in the Lindholmen test site.	Contributes in needs assessment, idea generation and concept development. Participates in development of some of the first set of measures.	Not periodic but based on needs: ICCP meetings and workshops. Specific meetings on concepts. Additional meetings based on needs.

Table A 3 – Organisational roles, activities, and interactions in Hamburg Living Lab

<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
TASK FORCE					
Senate Chancellery	LL level, concept development, (test site level)	Task Force	• Project manager Living Lab Hamburg • TF member • interface to the project coordinator and WPs	• Facilitation of TF meetings • Coordination of LL Hamburg's contribution to WP requests • Conceptualisation of ICCP	• Weekly TF meetings • Weekly jour fixe meetings with District of Altona • Additional meetings based on needs
Ministry of Economy and Innovation (BWI)	LL level, concept development, test site level	Task Force	• TF member • Lead of new working group of the Logistik-Initiative Hamburg – see ICCP • Interface to ongoing activities of the BWI	• Participation in TF meetings • Contact to Logistic-Initiative Hamburg	• Weekly TF meetings • Additional meetings based on needs
District of Altona	LL level, concept development, test site level	Task Force	• TF member • Coordination of local pilot implementation	• Participation in TF meetings • Coordination of local pilot implementation • Contact to local stakeholders	• Weekly TF meetings • Weekly jour fixe Senate Chancellery • Additional meetings based on needs
HafenCity University (Digital Science City and City Science Lab)	LL level, concept development, test site level	Task Force	• TF member • Support of citizen engagement activities	• Participation in TF meetings • Support of citizen engagement activities	• Weekly TF meetings • Additional meetings based on needs

			• Conceptualisation of social use cases of hubs	• Conceptualisation of social use cases of hubs	
DB Station & Service AG	LL level, concept development, test site level	Task Force	• TF member • Contributions to planning of hubs	• Participation in TF meetings • Operator hub Holstenstraße • Contributions to planning of hubs • Interface product DB SmartLocker and ioki (on demand shuttle and analytics) • Interface to City of Munich	• Weekly TF meetings • Additional meetings based on needs
ICCP					
Logistik-Initiative Hamburg (LIHH)	LL level	ICCP	“Platform” of new working group on last mile logistics & mobility		
Ministry of Economy and Innovation (BWI)	LL level	ICCP	• Lead of new LIHH working group • Envisioned Members: • Ministries for transport and urban development • A representative for the districts • Representatives from the working	• Planning of new working group with input from TF (objectives, issues to be addressed, participant, meeting rhythm etc.)	• 4 working group meetings annually envisioned • Subgroups to work on focus topics in between quarterly meetings

			group ITS>New Mobility solutions • Member companies of LIHH (which also includes DB Smart City) • CEP (main CEP companies and cargo bike deliverers) • Representatives for public transport (Hochbahn) • Associations (logical and retail) • Research/scientific actors Hafen City University and Technical University Hamburg • Hamburg Invest (• Chamber of commerce • Housing companies (esp. the municipal SAGA) • Vehicle manufacturers • Local retail associations		
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Working group ITS (AK ITS) > to be transformed in “New Mobility Solutions” in summer 2022	LL level (envisioned)	ICCP	Existing partnership with a focus on mobility/ ITS projects in Hamburg > transformation into “New Mobility Solutions” to be presented in next meeting in June 2022 (role for MOVE21 to be seen depending on the new developments)	Participation of TF members (Ministry of Economy and Innovation, Senate Chancellery) in working group meetings	Currently one meeting per quarter – new working rhythm and organisational structure still unknown
TEST SITES					
See below					
CONCEPT DEVELOPMENT					
See Task Force					
LOCAL STAKEHOLDERS					
Ministry of Transport and Mobility Transition (BVM)	Concept Development Ecosystem level	Concept Development Ecosystem		- Provision of data for digital twin - Coordination and development of mobility strategies - Active in other national or European research projects	On demand
VHH	Concept Development Ecosystem level	Concept Development Ecosystem	Public transport company (busses, on-demand shuttle)	Exchange about combined transport of people and goods	On demand
Mercado	Test Site Ecosystem level	(Local) stakeholders or partners of ecosystem	Local shopping centre	Interested in offering cargo bike	Irregular, in contact with district of Altona also via other

				rental for customers and stores Potential location of a future hub or key user of a planned hub nearby	projects and local economic promotion
Unser Altona	Test Site Ecosystem level	(Local) stakeholders or partners of ecosystem	Representative of interests of local retail	- Interested in offering cargo bike rental for customers and stores - Interested in new business cases, delivery services for local retail	Irregular, in contact with district of Altona also via other projects and local economic promotion
Mobil Station / Quarter Office Mitte Altona	Concept Development Ecosystem level	Concept Development Ecosystem, (Local) stakeholders or partners of ecosystem	- Local mobility station and cargo bike rental - Involved in development of mobility services at large housing cooperative	Support by establishment of contact and negotiations with SAGA (public housing cooperative)	Irregular, on demand
EXISTING PARTNERSHIPS					
Logistik-Initiative Hamburg (LIHH)	LL level	Existing partnerships	“Platform” for new working group on last mile logistics & mobility		- Regularly with BWI - On demand with TF
Working group ITS (AK ITS) > to be transformed in “New Mobility Solutions” in summer 2022	LL level (envisioned)	Existing partnerships	Existing partnership with a focus on mobility/ ITS projects in Hamburg > transformation into “New Mobility Solutions” in summer	Participation of TF members (Ministry of Economy and Innovation, Senate Chancellery) in working group meetings	Currently one meeting per quarter – new working rhythm and organisational structure still unknown

			2022 (role for MOVE21 to be seen depending on the new developments)		
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<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
TEST SITES					
Test site #1 – Holstenstraße (MOVE21-HUB with layers of logistics/recycling, social-culture, B-B-mobility)					
Task Force	Living lab level	Task force	Steering, financial controlling, communication		Weekly
District of Altona	Living lab level	Task force	Tenant	Placing renovating, choosing social-culture institution	Task force: weekly
SAGA	Living lab level	Task force	Property owner, link to residents in neighbourhood	Permission of renovating	On demand
HafenCity University (Digital Science City and City Science Lab)	Living lab level	Task force	Social layer • Concepts • Analytics	Choosing social-culture institution	Task force: weekly
DB Station & Service AG	Living lab level	Task force	Operator	Building equipment, contract negotiation, organization of facility management	Task force: weekly
Ministry of Economy and Innovation (BWI)	Living lab level	Task force	Networking, e.g. to fundings, users	Proofing location for SmaLa at Holstenstr.	Task force: weekly
<i>logistic companies (1 up to 5)</i>	Test site ecosystem	Test site ecosystem	Users with last-/first mile operations	Viewing hub, contract negotiation	On demand
<i>social-culture main institution (1)</i>	Test site ecosystem	Test site ecosystem	User with services for citizen	Viewing hub, contract negotiation	On demand

<i>B-B mobility companies (1 up to 3)</i>	Test site ecosystem	Test site ecosystem	Users with services for mobility, e.g. charging fleet	Viewing hub, contract negotiation	On demand
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<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
<i>Test site #2 – Harkortstraße (national funding-HUB with layers of logistics/recycling)</i>					
Ministry of Economy and Innovation (BWI)	Living lab level	Task force	Recipient of national funding	Project management,	Biweekly
District of Altona	Living lab level	Task force	Property owner development test site	Project management, integration MOVE21	Biweekly
DB Station & Service AG	Living lab level	Task force	Operator	Building equipment, contact to logistic companies and contract negotiation, organization of facility management	Biweekly
HafenCity University (Digital Science City and City Science Lab)	Living lab level	Task force	Communication	Organization “Day of neighbourhood”	On demand
Mobil Station / Quarter Office Mitte Altona	Living lab level	Test site ecosystem	Communication, partner for MOVE21-mobility-add-on’s	Organization “Day of neighbourhood”	On demand
<i>B-B mobility companies (1...3)</i>	Test site ecosystem	Test site ecosystem	Users with additional services for mobility, e.g. charging fleet		On demand

<u>A. Actor name</u>	<u>A. Actor level</u>	<u>A. Actor entity</u>	<u>B. Role</u>	<u>C. Activities</u>	<u>D. (Periodic) meeting structure</u>
<i>Test site #3 – Kaltenkircher Platz (start with mobility & charging)</i>					
District of Altona	Living lab level	Task force	Property owner development test site	Project management	tbd
Hochbahn AG (hvv switch)	Living lab level	Test site ecosystem	Mobility station for (e-)carsharing	Planning small station (4 cars, 1 charging point)	tbd
DB Station & Service AG	Living lab level	Task force	Product design	Design park & charge for business-cars	tbd
B-B mobility companies (1 up to 5)	Test site ecosystem	Test site ecosystem	Users with additional services for mobility, e.g. charging fleet		tbd

Annex C – Organisational model of the Oslo Living Lab, enlarged overview

Figure A 1 – Organisational model of the Oslo Living Lab, enlarged overview

