PRACTITIONERS' GUIDE FOR SETTING UP SELF-SUSTAINING INNOVATION CO-CREATION PARTNERSHIPS

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Project Executive Summary

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

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

MOVE21 partners

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

- **Norway**: City of Oslo, Akershus 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 InfraGO
- **Italy**: Metropolitan City of Bologna, Roma Servizi per la Mobilità, Roma Tre University
- **Belgium**: Eurocities, Polis
- **The Netherlands**: TNO
- **Greece**: Hellas Centre for Technology and Research

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Deliverable executive summary

MOVE21 highlights both collaboration across different scales and the importance of long-term sustainability as keys to success. The MOVE21 Living Labs are designed to endure beyond the project by using a self-sustaining partnership model that builds on existing strong partnerships for zero-emission solutions (MOVE21 D6.5 *Living Labs Establishment Report*, 2022). Maintaining a Living Lab is challenging (Gascó, 2017), but MOVE21 takes specific actions to ensure their sustainability: promoting innovation through policy coherence, increasing cities' innovation capacity, and establishing long-term Innovation Co-Creation Partnerships with a solid organisation and business model.

The methodology for the development of Innovation Co-Creation Partnerships consists of three Stages (see Figure 1 below).

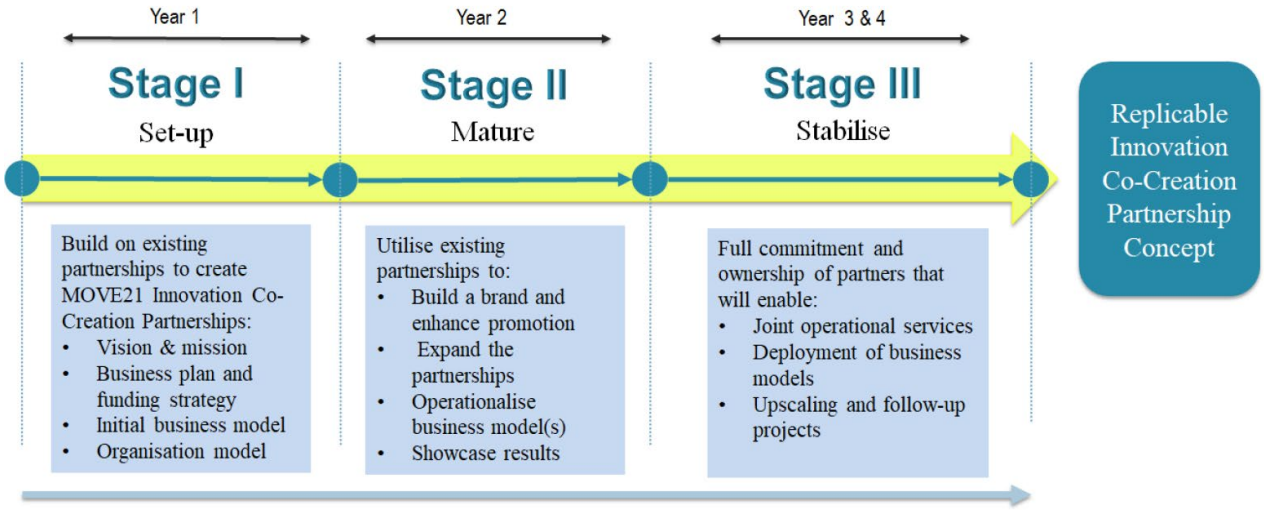

Figure 1: The three stages of ICCP development.

This deliverable serves as a practitioner's guide to other cities and their partners that want to set up similar partnerships. For each stage, the scope, key steps and main insights are shared in a factsheet. Also, the Preparing Stage, which precedes ahead of the set-up stage is described in a factsheet and further detailed (Chapter 3). Then, each Stage is elaborated on: Set-up Stage (Chapter 4), Maturing Stage (Chapter 5), Stabilising Stage (Chapter 6).

The results in this practitioner's guide emerge from the findings from the Reflective Monitoring process for the three Living Lab cities Oslo, Gothenburg and Hamburg, and their work on setting up, maturing and stabilising ICCPs (Innovation Co-Creation Partnerships) within MOVE21.

A key component of each Living Lab is an Innovation Co-creation Partnership, which leverages existing city partnerships to create effective and sustainable arenas for public-private collaboration. Participants include local authorities, industries, businesses, SMEs, infrastructure operators, public transport providers, utilities, knowledge institutes, and civil society representatives. This quadruple helix innovation framework emphasizes the interaction between four key sectors: government, industry, academia and civil society. The partnerships focus on co-creating, tailoring, deploying, and upscaling mobility and logistics innovations to fit local contexts. Quadruple helix partners also assess and review measures to accelerate the adoption of these innovations.

MOVE21's partnership model is replicable to other cities and contexts working towards sustainable innovations across the EU. The model aims to enhance cooperation in local innovation ecosystems, foster an integrated approach to mobility challenges and solutions, accelerate the market uptake of effective solutions, and sustain the deployment and upscaling of innovations. The model is preferably built on existing partnerships, with initial steps focusing on engaging existing partnerships or collaborators to adopt MOVE21 principles. The Innovation Co-Creation Partnerships can operate under the umbrella of an existing partnership or as a new one dedicated to co-creating and deploying mobility innovations. These partnerships are encouraged to develop organisational models and business plans and seek to develop and enhance local innovation capacity through adequate measures and priorities. For some partnerships, the natural next step is to develop joint operational services and facilities.

The Innovation Co-Creation Partnerships convene regularly to discuss proposed innovations, identify local opportunities and expected impacts, and to align with city policy goals. They also address potential obstacles and strategies for adapting innovations to local conditions, fostering an environment conducive to upscaling and market uptake. Continuous knowledge brokerage provides necessary expertise for these discussions, enabling partners to propose actions, discuss supporting policy measures, and develop local upscaling plans.

Key aspects for building and sustaining partnerships include democratic and transparent conditions for discussions, fostering trust among actors, and ensuring equitable power distribution where all voices are heard in decision-making. Self-reflection is also crucial at various stages, requiring dedicated time to evaluate, and learn from, not only challenges but also achievements. This includes recognising successful initiatives, tangible outcomes, knowledge exchange, and effective collaboration processes.

Key words

Innovation Co-Creation Partnerships, collaboration framework, governance

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List of abbreviations and acronyms

Acronym	Meaning
BRG	Business Region Gothenburg
D	Deliverable
GA	Grant Agreement
ICCP	Innovation Co-Creation Partnership
KPI	Key Performance Indicator
LIHH	Logistics Initiative Hamburg
LL	Living Lab
M	Month
PPPP	Public-Private-People Partnerships
TF	Task Force
WP	Work Package

1 Purpose of the deliverable

This deliverable, MOVE21 D6.8 *Practitioners' guide for setting up self-sustaining Innovation Co-Creation Partnerships* (ICCPs), details the results of the Reflective Monitoring process for the three Living Lab cities Oslo, Gothenburg and Hamburg, and their work on setting up, maturing and sustaining ICCPs (Innovation Co-Creation Partnerships). The theoretic base of the work in the MOVE21 Living Labs, as well as the lessons learned and insights gained during the lifetime of the project, are described in the deliverable. This captures the project learnings, as well as provides a knowledge base for other cities and partnerships that want to collectively work on innovation in a co-creative way. This deliverable relates to tasks 6.1 and 6.4 in Work Package (WP) 6, *Establish self-sustaining Innovation Co-Creation Partnerships (6.1.1)* and *Collecting best practices and lessons learned (6.4)*. This deliverable will be used to highlight results and provide applicable methods and materials for working on ICCPs in cities, other public organisations and partnerships with quadruple helix partners (public sector, private sector, academics and society).

In this deliverable we build on the Reflective Monitoring approach as described in D6.1 *Reflective Monitoring Guide* and the interim results thereof as described in D6.6 *Reflective Monitoring: interim report*. Additionally, it builds on D6.5 *Living Labs Establishment Report,* which details the first stage in setting-up the ICCPs in MOVE21 in the three Living Lab cities. Deliverables D6.1 and D6.6 specify monitoring activities connected to the ICCPs but also on other monitoring topics in this project; Innovation Capacity and Policy Coherence. When relevant, these topics will be taken up in this deliverable, however, they are not the core focal point.

1.1 Attainment of the objectives and explanation of deviations

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

1.2 Intended audience

This deliverable is public and relevant to a broader audience.

First, this deliverable is interesting for a general audience that wants to understand more about setting up partnerships and collaboration across different sectors and with different types of stakeholders. It shows interesting insights with regards to challenges, barriers, strategies, and lessons learned on co-creation and partnership development. It also highlights the methodology of setting-up and sustaining Innovation Co-Creation Partnerships in MOVE21, an approach based on theory and practice that is transferrable to other contexts, cities, partnerships or use-cases.

Furthermore, 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 of MOVE21 – Living Lab project managers, involved city officials, Task Force members, Innovation Co-Creation Partnership-members – as well as stakeholders related to the three cities that are interested in the MOVE21 Living Labs and partnership development.

1.3 Links with other work packages/deliverables

The deliverable reports on the Reflective Monitoring process and the results following from the activities that have been executed regarding Innovation Co-Creation Partnerships in MOVE21. The Reflective Monitoring activities covered in this deliverable are covering the entire project duration.

From this deliverable there are links with several work packages. First, there is a link to primarily WP4, and in lesser extent also to WPs 3 and 5. WP3 (the Urban Social Layer), WP4 (Governance Innovation) and WP5 (Technological Solutions and Integration) have been part of regular knowledge exchange between the Living Labs under the coordination of WP6. This knowledge exchange was sometimes explicitly geared towards the topic of Innovation Co-Creation Partnerships. In these knowledge exchanges, the connection on content was most evident with WP4, however, the local knowledge of the organisations connected to the other WPs was also valuable in the context of Innovation Capacity exchange as their connection to the Living Labs sometimes leads to additional insights. Additionally, WP3, 4 and 5 also provided so-called 'local monitors', that periodically monitored the Task Force or ICCP meetings of the three Living Labs. During these monitoring sessions, reflections and observations were made and documented to be shared amongst the local monitors with WP6 to provide an additional feedback loop and providing additional input on the topic of ICCPs.

With WP7 (Replication and Take-up), the link is mostly on knowledge exchange and peer learning, capacity building and replication activities between the Living Lab cities and the Replicator cities. Whereas the Living Labs had the explicit task or assignment to set up an ICCP and collaborate in this partnership structure, the Replicator cities did not. However, the learnings on how to effectively collaborate across sectors and with different stakeholders involved to co-create towards innovation, is still insightful for these Replicator cities.

With WP9 (Exploitation Management) there is a link regarding key exploitable results, related to the exploitation of the methods and materials built-up over the years in this project regarding working on Innovation Co-Creation Partnerships.

Finally, with WP10 (Dissemination and Communication), the link is regarding knowledge management, capturing and disseminating the results and learnings of the Living Labs and the methods and materials developed in this project towards a broader audience.

1.4 Relation to Reflective Monitoring in MOVE21

Reflective monitoring in the context of MOVE21 is a structured approach designed to facilitate continuous learning and adaptation within complex socio-technical systems involving multiple stakeholders. Reflective monitoring is essential for managing the interactions between various actors (individuals, organisations) and technologies within mobility and logistics systems. It focuses on learning from interactions, policy processes, and innovation processes to develop and stabilize system solutions. Reflective monitoring enables "double loop learning," where experiences lead to changes in organisational goals and decision-making rules. Reflective monitoring in MOVE21 is thus a dynamic and iterative process aimed at fostering continuous improvement and adaptation in the development and implementation of innovative mobility and logistics solutions.

Central to the monitoring activities are three topics; 1) monitoring interactions and dynamics in the Task Forces and ICCPs, where the system solutions are initiated and expanded, 2) monitoring policy processes and Policy Coherence between actors' goals and policy tools and finally 3) monitoring

innovation processes and strengthening Innovation Capacity for public sector actors. In this deliverable, the first topic, on the Task Force and ICCPs interactions and dynamics are central.

As part of the activities in MOVE21 regarding the Innovation Co-Creation Partnerships, there have been numerous meetings and exchanges in different settings. Generically speaking, there have been Task Force meetings (varying in occurrence ranging between weekly and bi-monthly), bilateral meetings between project managers of the Living Labs and WP6, but also bilateral meetings within the Task Force / ICCP ecosystems. Also, there have been dedicated workshops and co-creation sessions organised to engage stakeholders in the Living Labs and to develop both partnerships and solutions. For example, in Oslo there were activities such as discussing the dynamic partnership structures, stakeholder identification, creating collaboration agreements and joint ownership agreements and setting up multilateral community contracts. In Gothenburg the Living Lab organised workshops and site visits, conducted stakeholder mapping exercises, established test site working groups and signed collaboration agreements. In Hamburg the Living Lab held weekly Task Force meetings, organised deep dive workshops, conducted stakeholder mapping exercises and organised sessions for multifunctional neighbourhood hubs where they amongst others discussed business models for local couriers.

Finally, specifically for the Reflective Monitoring and knowledge exchange as part of WP6 there have been sessions and presentations on the topic of ICCPs, and there have been interviews and other data collection efforts (Task Force establishment Interviews (2022), Interviews and surveys with Project Managers of the Living Labs on the current status of the ICCPs (2024), and interviews about the sustaining measures of the ICCPs (2024); report on MS10 Business models for innovation co-creation partnerships operational and stories (2024) for MS9 Upscalings take place (2024)).

This deliverable will both summarize the activities that have taken place in the three Living Lab Cities as well as the dedicated WP6 activities to understand and learn on the topic of Innovation Co-Creation Partnerships.

1.5 Reading Guide

The deliverable starts in chapter 2 with the background of the ICCP which played an important role in structuring collaboration throughout the project between quadruple helix partners. The chapter will briefly describe the theoretical scope on Living Labs, quadruple helix collaboration and the ICCP as a concept, the approach in the project and methods that were applied. It closes with the steps as a guide to setting-up an ICCP. Chapter 3 goes into the very first ideation and starting phase of setting-up an ICCP. It will detail the first steps of initiation and lessons learned in MOVE21 on formalising innovation collaboration and opportunities for ICCPs. Chapter 4 will describe the first official stage of the ICCP-cycle; the establishment phase. This phase has been documented quite elaborately previously for the three Living Labs in MOVE21, in D6.5 *Living Labs Establishment Report*. This chapter takes a step back and reflects on these first actions and steps to undertake in building and establishing the ICCP. Chapter 5 will then describe the second stage of the ICCP-cycle; the maturing phase. The first steps towards maturing have been documented previously for the three Living Labs in MOVE21, in D6.6 *Reflective Monitoring: interim report*, but in this deliverable the reflection on these actions and steps is further detailed. Chapter 6 will go into the final stage of the ICCP-cycle, the stabilising phase. This chapter details the steps and actions towards stabilising the ICCP based on the examples of the ICCPs in MOVE21's three Living Labs. It will describe some stabilising results in the project, and the different types of models that can be derived for stabilising. In chapter 7, conclusions and recommendations are shared, highlights of the steps are recapped, best practices and lessons learned are collected and a future outlook on working in innovation collaboration structures is given.

2 Introducing the ICCP

This chapter will detail the Living Lab methodology in MOVE21, and more specifically the ICCP – the Innovation Co-Creation Partnership. The ICCP played an important role in structuring collaboration throughout the project between quadruple helix partners. The chapter will briefly describe the theoretical scope, the approach in the project and methods that were applied. It will close with a reading guide, which describes the steps as a guide to setting-up an ICCP.

2.1 ICCPs in MOVE21

In the MOVE21 project, an explicit decision was made to work with an open innovation model that enables quadruple helix partners to collectively innovate towards integrated solutions for passenger and goods transport. Based on experiences in previous work (a.o. in the EU Horizon 2020 projects EU-GREAT! and ATELIER), the MOVE21 consortium deemed it important that the efforts of the project would sustain to the best of their ability; a model that enables the partnership and project efforts to outlive the project. Therefore, the Living Labs are developed with the task of creating self-sustaining partnerships – the so-called Innovation Co-Creation Partnerships, ICCPs. These Innovation Co-Creation Partnerships are a continuation and specification of the so-called 'Innovation Ateliers' as defined in the EU Horizon 2020 project ATELIER. To properly introduce the concept of the Innovation Co-Creation Partnership, and why the decision was made to work in this specific structure in MOVE21, this chapter will first further introduce the concept of the Living Lab and Quadruple Helix collaboration structures. These are at the theoretical basis of the ICCP concept and present important preconditions for the success of an ICCP in MOVE21.

2.1.1 Living Labs

A Living Lab is "*a research concept, which may be defined as a user-centred, iterative, open-innovation ecosystem, often operating in a territorial context (e.g. city, agglomeration, region or campus), integrating concurrent research and innovation processes within a public-private-people partnership*" (Pallot, 2009). Living Labs are thus geared to integrate research and innovation processes within real-life settings. They involve collaboration among businesses, citizens, governments, and research institutions, fostering a rich environment for innovation. Living Labs operate mostly through partnerships involving both private parties, public parties and citizen representation (also called Public-Private-People Partnerships (PPPP)) and sometimes also include research and knowledge sectors. In Living Labs, users actively participate in the development, testing, and refinement of new products and services.

Living Labs function by engaging partners from the early stages of the innovation process. This involvement includes co-creation, exploration, experimentation, and evaluation of innovative ideas, scenarios, concepts, and related technological artifacts. The real-life settings allow for the testing and refinement of innovations, making them more relevant and applicable. Living Labs also support sustainable development by integrating social and technological innovations, contributing to long-term sustainability goals.

To ensure that Living Labs can operate in the way that is promised and described in the definitions and descriptions above, there are four preconditions for successful Living Labs. These are:

- *A clear governance framework:* A well-defined governance structure is essential to provide the necessary trust and structure for collaboration.
- *Adequate funding:* Ensuring sustainability beyond initial project phases requires developing viable business models and securing adequate funding.
- *Supportive infrastructure:* A supportive infrastructure, including technological and physical resources, is crucial for the effective functioning of Living Labs.
- *Flexibility and adaptability:* Living Labs must be adaptable to different contexts and needs, allowing them to address a wide range of issues.

Successful Living Lab set-ups and operation share some similarities and success factors:

1. Regarding **early and continuous user and/or partner involvement**, engaging partners and users from the early stages and throughout the innovation process ensures that their needs and feedback shape the development of new products and services. This also means that these Living Labs are able to balance the interests of various stakeholders, ensuring that both social and economic objectives are met.
2. Building on the first point, successful Living Labs involve **collaboration across various disciplines**, including technology, social sciences, and environmental studies, to address complex challenges. This also means that they include different types of partners to ensure the representation of these disciplines in the project.
3. Allowing for **flexibility in the research design** so that Living Labs can adapt and respond to the dynamics of innovation processes and the complex challenges that are often at the scope of the project effectively.
4. Experiences in Living Labs show that **effective governance by public institutions** is essential to provide the necessary trust and structures for collaboration. Besides this, they can also ensure that innovations address societal needs and that they are aligned with public interest.
5. Some level of **methodological rigor** is to be expected with regards to the employment of these methods for user involvement and co-creation. This includes using interactive and participatory methods to maximize engagement and idea generation from partners in the project (Cossetta & Palumbo, 2014).

Based on studies on Living Labs and their success and impact, there are take-aways with regards to building better Living Labs, also describing issues that have been proven to be difficult (Von Geibler et. al., 2014). First there is the issue of building trust and motivation in partnerships and project consortia, also on the user / citizen side. Maintaining motivation and trust is essential, however challenging over the course of a multi-year project with a lot of complexity and unpredictability. Therefore, it is important to have transparent processes and to demonstrate the tangible benefits of participation and innovation efforts. Also, enhancing the visibility of the Living Lab can help in fostering long-term engagement of stakeholders and might also support in improving outcomes. Another challenge is that when partnerships are cross-border, and Living Labs have to deal with stakeholders and interests from different perspectives, there is an additional factor to manage. Cross-border collaborations – both in terms of discipline and location, can enhance innovation processes but they also require careful management of the differences, interests and potential competition. Finally, sustaining innovation efforts beyond the lifetime of a project proves to be very challenging. First and foremost, because of the lack of similar conditions after the project, such as financing, and (contractual) engagement of stakeholders. But also, when upscaling solutions, contexts change with regards to the initial pilot phase of the project. This sustaining and upscaling effort remains a critical area for improvement. This part is also explicitly mentioned and emphasized in MOVE21's suggested ICCP collaboration structure, with the objective to ensure the sustaining of the collaboration beyond the lifetime of the project.

2.1.2 Quadruple Helix collaboration structures

While in the concept of the Living Lab, collaboration between public sector, private sector and users is evident, the inclusion of knowledge and research institutions is not always prefaced. In MOVE21, the inclusion of knowledge and research institutions in the Living Labs is however deemed important. This collaboration between private sector, public sector, users or citizen representation and knowledge and research institutions is called quadruple helix collaboration. This collaboration model is pivotal in fostering sustainable innovation ecosystems, particularly in the context of open innovation models (such as the ICCP – more on that later). The dynamics, roles, and examples of such collaborations, and their impact on sustainable urban innovation projects and addressing complex challenges like climate change are highlighted below.

Quadruple helix collaboration can be essential with regards to facilitating and enabling innovation processes in Living Labs or 'open innovation' structures (Yun & Liu, 2019). When addressing innovation processes we focus on the broad scope of innovation, f.i. social innovation, governance innovation, product innovation, and technological innovation.

It allows *private parties* to access external knowledge and develop new products. It helps smaller companies to overcome resource limitations and can offer access to the existing structures and network from other parties to enable the implementation and development of these innovations.

Governments play a crucial role in enabling open innovation ecosystems. Their roles in these collaboration structures and innovation projects have evolved from merely regulating to actively facilitating collaboration. Policies at national, regional and local levels help create innovation-friendly environments through frameworks, public infrastructure, and incentives. Governments also support responsible and publicly embedded innovation to ensure that technological advancements align with societal goals.

Academic institutions have transitioned from purely educational roles to becoming proactive collaboration partners in innovation ecosystems. Through partnerships such as the ones in a project like MOVE21, they engage in knowledge co-creation, offer insights and reflections, contribute directly to applied research and the development and/or commercialisation of technology or other types of knowledge products. Besides the dissemination and implementation opportunities, these structures also help in pooling and sharing resources for mutual gain within an innovation ecosystem.

Society's role in innovation has grown through increased engagement, where citizens and consumers actively participate in product and service development, and improvement of concepts and solutions. Specifically social media proves to play a critical role in shaping society's involvement in innovation processes, by creating awareness but also by enabling interaction with consumers for real-time feedback, branding, and co-creation purposes. Citizens and consumers can also be represented in an innovation ecosystem by proxy's or organisations that can represent this stakeholder group on their behalf.

While effective, open innovation needs careful management to prevent conflicts or hidden agendas, which could reduce its positive impact on society. Moreover, for open innovation to be successful, long-term (local) government commitment is crucial for embedding these initiatives beyond temporary experiments and ensuring accountability and alignment with public interests. Motivations for participating in such a collaboration scheme could be both extrinsic (such as access to funding, network and visibility) and intrinsic (such as contribution to public goals and societal impact). The presence of

structured, purpose-driven collaboration encourages sustained engagement and investment in the collective (Living Lab / ICCP) goals (Van Genuchten, Calderón Gonzalez & Mulder, 2019).

2.1.3 Innovation Co-Creation Partnerships – the ICCP

Now that the core components of an ICCP have been introduced in chapters 2.1.1 (Living Labs) and 2.1.2 (Quadruple Helix collaboration), the ICCP context will be further explained. The ICCP consists of (local) quadruple helix partners: public organisations, private organisations, research organisations and citizens or citizen representation. An ICCP, within MOVE21, is designed to sustain after the project has ended, which means that the ICCP needs to think about creating partnerships and collaboration schemes with business models, and organisation structures that allow this to happen.

Innovation Co-Creation Partnerships (ICCPs) are a central component of the MOVE21 project, which aims to develop and implement sustainable urban mobility and logistics solutions through collaborative efforts. These partnerships are built on existing local networks and are designed to foster long-lasting, effective arenas for open innovation in public-private partnerships. The primary objectives of ICCPs are to enhance cooperation within local innovation ecosystems, foster an integrated approach to co-creating and tailoring sustainable mobility and logistics innovations, accelerate the market uptake of these solutions, and ensure their deployment and upscaling beyond the project's lifetime. These partnerships involve a diverse range of stakeholders, including local authorities, industries, businesses, SMEs, infrastructure operators, public transport providers, utilities, knowledge institutes, and representatives from civil society and citizens.

The methodology of ICCPs is based on a user-centric and dynamic open innovation process. This involves co-creating, testing, deploying, and upscaling both technological and non-technological innovations under real-life conditions. The process begins with the critical assessment and tailoring of innovations to the local context, identifying potential obstacles, and designing supportive policies with input from all relevant stakeholders. This iterative and agile approach ensures that the innovations are well-suited to the specific needs and conditions of each city. The partnerships support this process by enhancing cooperation in the local innovation ecosystems, by fostering an integrated approach in the local context supported by state-of-the-art knowledge from business and research, by accelerating market uptake of good solutions and by sustaining deployment and upscaling of sustainable mobility and logistics innovations beyond the lifetime of the project.

ICCPs are geared towards several key activities to maximise their impact and sustainability:

- *Policy Coherence:* Increasing policy coherence between different planning mechanisms to support innovations for passenger and goods transport.
- *Innovation Capacity:* Improving the innovation capacity of cities by strengthening local innovation ecosystems and networks.
- *Sustaining Innovation Co-Creation Partnerships:* Establishing and nurturing self-sustaining partnerships that can continue to drive innovation after the project's end.
- *Knowledge Brokerage:* Organising smooth knowledge brokerage processes to support the Living Labs and ensure continuous learning and adaptation.

The ICCPs are implemented in Living Labs in Oslo, Gothenburg, and Hamburg. Each Living Lab builds on existing local partnerships, such as the Oslo Business for Climate Partnership, the Gothenburg Climate Partnership, and the Hamburg Logistics Initiative. These partnerships provide a strong foundation for the ICCPs, ensuring that they are deeply embedded in the local context and have the support of key stakeholders. To ensure the long-term sustainability of the ICCPs, MOVE21 focuses on developing detailed business and investment plans for the different phases of the project. This includes

identifying joint activities that can generate operational revenues, such as workshops for ecosystem learning, collaborative testing and validation, and the identification of investment opportunities. Additionally, the partnerships are provided with a dedicated organisation and financing model to sustain them beyond the project's lifetime.

Innovation Co-Creation Partnerships are a vital element of the MOVE21 project, driving the development and deployment of sustainable urban mobility and logistics solutions. By fostering collaboration among a wide range of stakeholders and ensuring that innovations are tailored to local contexts, these partnerships help cities transition to more sustainable and efficient transport systems. The focus on long-term sustainability and continuous adaptation ensures that the benefits of these innovations can be realized well beyond the project's duration.

Factsheet ICCP Preparing Stage

Scope of the ICCP Preparing Stage

The ICCP preparation stage is an unofficial but critical phase preceding the establishment, maturing, and stabilising stages of the methodology. Its primary focus is on:

- **Understanding the added value of ICCPs** by identifying how they contribute to innovation and strategic objectives.
- **Identifying opportunities for ICCPs**, such as fostering innovation ecosystems and accelerating market uptake of promising solutions.
- **Formalising collaboration structures at the partnership level,** moving beyond the measure level to establish long-term, integrated partnerships.

Key steps to take in the ICCP Preparing Stage

- **Stakeholder mapping**: conduct stakeholder analysis to map relevant partners in adjacent sectors.
- **Identifying key partners**: determine partners for the ICCP who want to drive collaborative efforts.
- **Explore governance structures**: identify collaboration models and governance structures around task forces, working groups and test sites to manage diverse stakeholders and drive co-creation. Tailor these approaches based on the local context.

Insights from the ICCP Preparing Stage in Oslo, Gothenburg and Hamburg

- **Oslo:** Involved the "Business for Climate" network, engaging 150 companies to align with the city's climate goals, and integrated knowledge institutions and citizen (representation) through thematic meetings.
- **Gothenburg**: Conducted a micromobility cluster analysis, identifying and bringing together stakeholders to explore value creation and business models, leading to the conceptualisation of the Mobility Hotel.
- **Hamburg**: Partnered with the Logistics Initiative Hamburg (LIHH), leveraging its established network of 500 companies to build the ICCP framework in the existing working group structure.

Details on the ICCP Preparing Stage are described in Chapter 3.

3 Preparing an ICCP

The ICCP methodology is explored in detail across the next chapters, describing the three stages of ICCP development (chapter 4 details the establishment stage, chapter 5 the maturing stage and chapter 6 the stabilising stage). However, an unofficial but critical stage precedes these: the preparation stage. This preparation stage primarily addresses:

- Understanding the added value or need for ICCPs
- Identifying opportunities for ICCPs
- Formalising Innovation Collaboration on partnership level, not just measure level

These three points are briefly elaborated below.

3.1 Key attention points for preparing towards an ICCP

From the very beginning, the MOVE21 project emphasized the importance of the ICCPs, highlighting sustained collaboration structures both as a methodology well as a means to achieve strategic objectives and goals in the project. The methodology of the Innovation Co-Creation Partnerships is geared towards new business and collaboration models that support an integrated approach, combining technological and non-technological innovations towards the decarbonisation of mobility solutions for people and goods. Since the ICCP represents partners from various backgrounds, this integrated approach is materialized in the collaboration structure. Furthermore, the methodology puts emphasis on realising a self-sustaining partnership model for the Living Labs, taking this into account when setting up the ICCPs.

In order to set up Innovation Co-Creation Partnerships in the project, key partners for each Living Lab were identified that could or should play a role in setting-up and sustaining these collaboration efforts, and existing partnerships were mentioned already from the start that might be capable of sustaining the ICCPs beyond the project lifetime. Additionally, a user-centric and dynamic open innovation process is at the core of the project, by working in Living Labs of Oslo, Gothenburg and Hamburg. There are four activities mentioned in this methodology, and one of them is "Establishing and nurturing self-sustaining Innovation Co-Creation Partnerships" that will build on existing partnerships in each of the Living Labs.

In the case of MOVE21, the preparation stage was carried out when working on the project proposal, for other cities to take this on, a stakeholder mapping would be a relevant exercise to identify what partners to involve in the partnerships. For stakeholders to get involved in such a partnership, it is important to find mutual gains. Possible opportunities are phrased as for instance the acceleration of market uptake of successful or promising measures and solutions, and enhanced cooperation within the innovation ecosystem in a way that stretches beyond the boundaries (in scope and/or timeline) of the project. As the ICCPs objective is to outlive the project, and to keep reinforcing collaboration across sectors and parties after the project ends.

To ensure long-term success, the ICCPs are built and professionalized in three stages. The set-up stage (explained in chapter 4), the maturing stage (explained in chapter 5), and the stabilising stage (explained in chapter 6). These stages include activities and steps such as creating a shared mission and vision, developing business models, showcasing results and scaling activities. An overview of these steps is shown below in Figure 2.

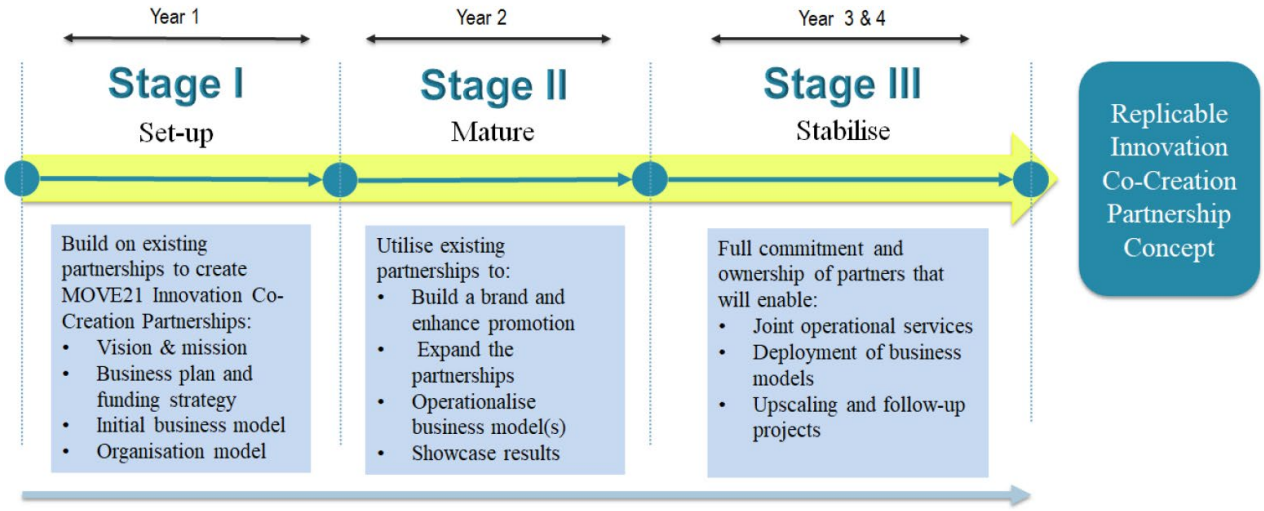

Figure 2: The three stages of ICCP development

Finally, it is important to make a distinction between the types of collaboration that take place in innovation projects. There are collaboration structures in place on measure level on the one hand, and collaboration structures for partnerships and Living Labs on the other hand. When talking about collaboration structures and partnership models in projects, the focus tends to be on the first category – on measure level – while the ICCP is a structure that focuses on the collaboration on the second category, on partnership level.

Partnerships and collaboration on measure level are about finding ways to operationalize a new technology, finding adequate governance structures and business models to launch a new innovation, or writing up contracts or agreements on roles and responsibilities in executing and operating this innovation. These measures and solutions are, or can be, a *result* of the Innovation Co-Creation Partnership. It is then a result of the partnership, of quadruple helix partners collaborating towards shared goals and missions. Therefore, the partnership in itself also has a business-case, a governance structure and agreements and contracts. This type of formalisation of partnerships is the focus of the ICCP methodology as described in this deliverable.

3.2 Preparing the ICCP governance structures

Effective governance is essential for ICCPs to manage diverse stakeholders and co-create innovations. In MOVE21, the ICCP governance structure was organised around two key elements: Task Forces and Test Sites.

A Task Force acts as the core team of the partnership that is responsible for the agenda and process, organising the partnership and safeguarding progress and sustainability of the partnership (beyond project lifetime). The Task Force consists of 4-6 persons, (ideally) representing quadruple helix stakeholders and local partners. The Task Force is led by the project leaders of the Living Lab (representatives of the municipality involved in MOVE21). Each Living Lab had freedom to design the Task Force in a way that they found fitting for their Living Lab context. The Task Force organises the processes with the Test Sites as well as knowledge brokerage activities and exchange with project knowledge partners. The Task Force is the delegated executing power of the ICCP.

Test Sites are the physical areas in the Living Labs where pilots, experiments and co-creation takes place. The Living Labs of MOVE21 often had more than one Test Site. These locations were mostly

quite diverse in context and therefore also each required its own quadruple helix ecosystem representation. The Test Site ecosystem collaborates with the Task Force to work towards measures and solutions fitting the project and ICCP goals. The participants to be involved in each Test Site should be determined by stakeholder analysis. Each Test Site brings forward a lead contact point.

Furthermore, in MOVE21 'Advocates' were appointed who acted as the linking pins towards the knowledge partners in the project (in MOVE21 these were geared towards the topics of Urban Social Layer, Governance Innovation, Technological Solutions and Integration) and the Living Labs. This is however specific to this project structure, though it might in other contexts be relevant as well to appoint advocates, to connect to partners that can offer knowledge within the ICCP.

Finally, in the project, active support was given to the Living Labs and ICCPs, specifically to the Task Force, regarding the methodology and reflective monitoring. This support role is also a role that can be taken on by a partner(s) in other cities. Reflective monitoring facilitates the establishment of partnerships and builds trust among actors by planning long-term monitoring activities early in the design phase. Specifically for reflective monitoring, a 'local monitor' can be appointed. The local monitor provides regular feedback, ensures impartiality, and maintains confidentiality to support continuous progress and cooperation within the partnership. It is the role of the local monitor to be analytical by observing collaboration processes and dynamics over time within the partnership. To identify trends and provide balanced reflections in relation to the partnership's goals and objectives. This helps facilitate cooperation within the partners and supports the achievement of the objectives.

The proposed governance structure for the Living Labs and ICCPs in MOVE21 is shown below in Figure 3. Within MOVE21 the Living Labs and ICCPs created their own specific governance structures in later stages.

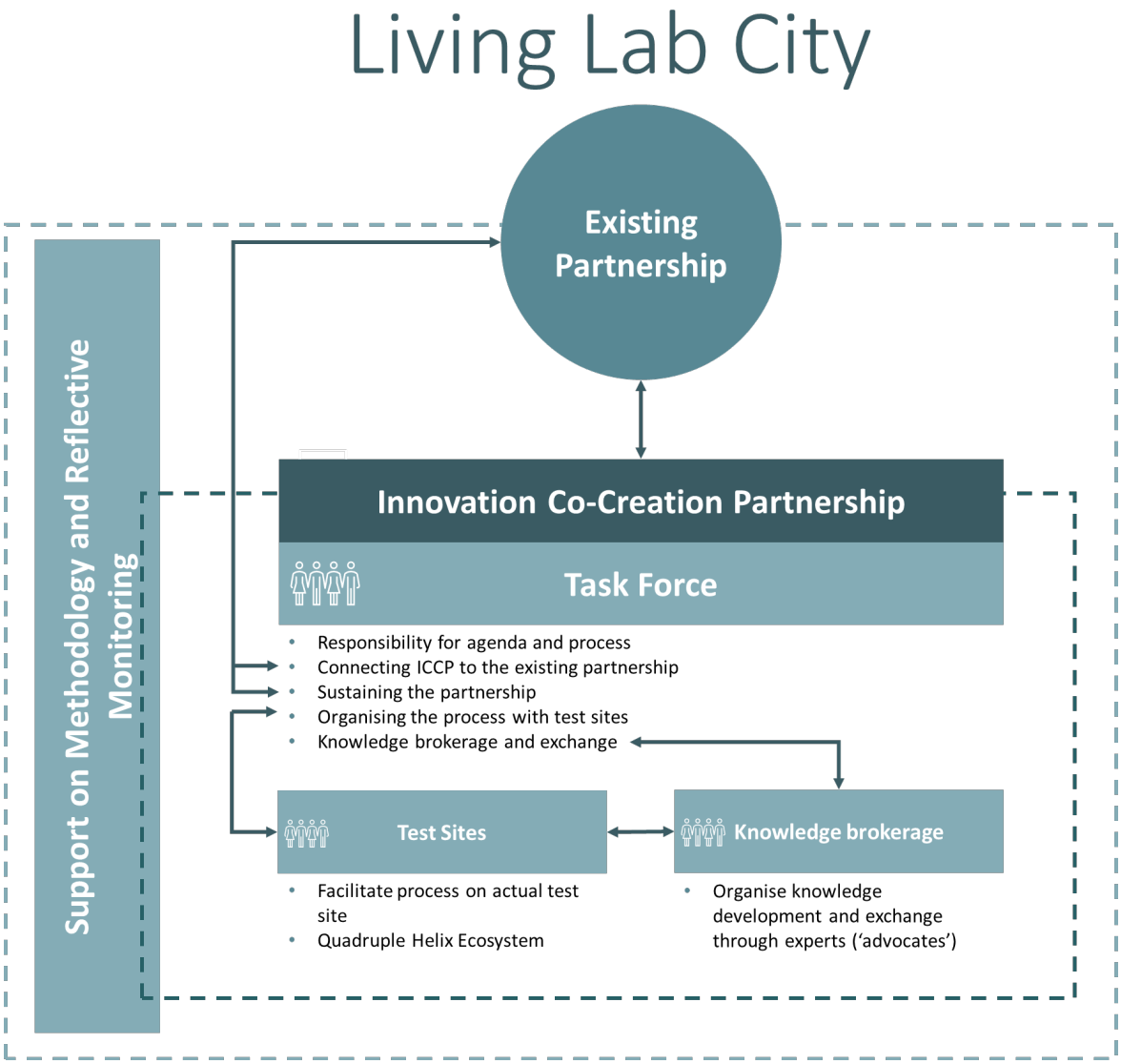

Figure 3: Proposed ICCP Governance Structure in MOVE21

3.3 Experience from practice – examples from the Living Labs in MOVE21

The preparation stage of the MOVE21 project was crucial in laying the basis for the ICCPs. This stage focused on identifying key stakeholders, defining collaboration opportunities, and incorporating structures that could support sustained partnerships. Below are examples of how this preparation stage was executed in the Living Labs of Oslo, Gothenburg, and Hamburg.

3.3.1 Oslo

During the preparation stage of the ICCP Oslo leveraged the existing Business for Climate network to partner in the MOVE21 project and the ICCP process. Business for Climate is a network initiated by the City of Oslo in 2010 to foster dialogue and cooperation between the city and businesses towards Oslo's climate goals (reducing direct climate emissions by 95% by 2030). Around 150 companies are part of the network. To join, companies must sign a climate contract with the city and report on their climate emissions. The Business for Climate network could thus be seen as a means for the local authority to get commitment from private companies towards the city's overarching climate goals.

Within the Business for Climate network, there are different forums on different topics such as transport, energy, construction, climate adaptation and circular economy. In relation to MOVE21, there is a specific focus on the transport forum. While the target audience of the network are businesses, the meetings are also open to academic partners and other organisations (f.i. citizen representatives).

3.3.2 Gothenburg

The preparation stage for setting up the Mobility Hotel in Gothenburg began with a cluster analysis of the micromobility industry, identifying key players and their needs. This analysis was conducted alongside the MOVE21 project application process and brought together stakeholders such as the City of Gothenburg, Business Region Gothenburg (BRG), RISE, and Nordstan Association (six real estate owners). The preparation stage explored how an empty location in shopping center Nordstan (in the city center of Gothenburg) could be repurposed for collaboration, aligning with the overarching goals of creating a green and liveable city.

This preparatory work also included discussions on the business model, focusing on where value could be created and how to enhance the city's attractiveness. Although some stakeholders had collaborated previously (f.i. in the Smoovit project, focused on goods consolidation in Nordstan), no formalised partnership structure existed before MOVE21. The ICCP framework developed during the project served as a basis to structure and expand these collaborative efforts.

3.3.3 Hamburg

In Hamburg, the preparation stage involved engaging the Logistics Initiative Hamburg (LIHH) as a partner for the MOVE21 ICCP. The LIHH is a well-established network of around 500 companies that was launched already in 2006 by the Ministry of Economy and Innovation. The aim of the LIHH among other tasks is to facilitate discussion and collaboration among the Ministry for Economy and Innovation and private companies.

During the preparation stage of the ICCP, it was not immediately clear what the ICCP in Hamburg would look like, but the LIHH seemed a logical partner because of this network and their role. The LIHH fit the needs of the ICCP well and provides a foundation of existing working group structures that could be built upon.

Factsheet ICCP Set-up Stage

Scope of the ICCP Set-up Stage

The ICCP set-up stage spans approximately one year and focuses on building foundational structures for collaboration within Living Labs. The partners in a Living Lab start exploring possibilities to connect to existing partnerships and establish a Task Force. The Task Force plays a strategic role in organising workshops, guiding pilot developments, and overseeing ICCP and test site activities. This stage emphasizes strategic planning, vision and mission setting and building long-term relationships.

Key steps to take in the ICCP Set-up Stage

The set-up stage involves several critical actions, including:

- **Defining a vision and mission:** Creating a shared, inspiring, and communicable goal aligned with local contexts.
- **Creating an organisational model:** Establishing a flexible structure that includes diverse quadruple helix stakeholders.
- **Developing a business plan and funding strategy:** Ensuring the ICCP's long-term viability and financial independence.
- **Preparing a local communication plan**: Facilitating effective stakeholder engagement and information dissemination.
- **Drafting a founding document:** Setting rules for decision-making, conflict resolution, and partnership management.

Insights from the ICCP Set-up Stage in Oslo, Gothenburg and Hamburg

Vision and mission

- ICCPs in MOVE21 emphasized the importance of a shared vision and mission to align stakeholder expectations and roles.
- A key challenge was translating consensus among individual members into organisational commitment and aligning the ICCP's strategic goals with operational priorities at test sites.
- Connecting strategic goals to overarching city objectives serves as leverage and improves alignment.

Organisational models

- Key organisational challenge regarding mandate, in terms of ownership, role allocation, and task distribution.
- During the set-up stage, the Task Forces started to experiment with defining the roles and responsibilities to best shape the ICCP and MOVE21 project. Flexibility in roles and responsibilities was important, as the organisational design evolved with project needs.
- Balancing long-term strategic partnership building with short-term operational demands is essential to avoid misalignment.

Financing strategy and business models

- Sustainable funding strategies are crucial for the sustainability of the partnership but often not prioritised in early stages of development. Focus in the Living Labs was initially on test site-level funding.

Details on the ICCP Set-up Stage are described in Chapter 4.

4 Setting up an ICCP

This chapter will describe the first official stage of the ICCP-cycle; the set-up stage (see Figure 4). This stage has been documented quite elaborately previously for the three Living Labs in MOVE21, in D6.5. This chapter takes a step back and reflects on these first actions and steps to undertake in building and establishing the ICCP.

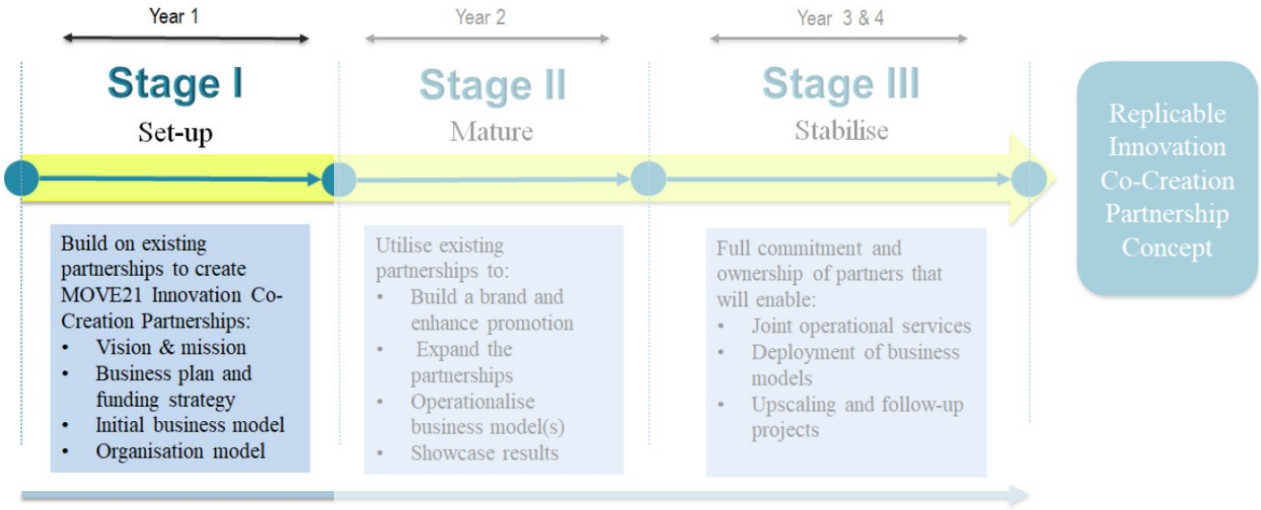

Figure 4: The first stage of ICCP development: the set-up stage

4.1 Methodology Set-up Stage

This first stage of the ICCP development takes place over the span of a year. In this set-up stage, the partners in a Living Lab start exploring possibilities to connect to existing partnerships and establish a Task Force. The Task Forces invite stakeholders from the local innovation ecosystems or stakeholders that are relevant for the context of the Living Lab's Test Sites to set up workshops and exchanges about the processes and pilots that will be developed and executed in the Living Lab.

During this first stage, the Task Force has a strategic position to establish this partnership and to oversee all activities happening in the ICCP and the Test Sites. They also decide on meeting structures and what partners to involve in what activities. Some essential steps in this first stage are:

- Creating a vision and mission for the ICCP;
- Creating an organisational model that facilitates the ICCP;
- Creating a business plan and funding strategy for long-term collaboration opportunities;
- Creating an initial business model for the partnership;
- Creating a local communication plan;
- Creating a founding document that describes all these aspects and details rules for decision making, conflict resolving and accession or departure of the partnership.

The three biggest and most important steps in this stage are the creation of this vision and mission, the organisational model and the financing strategy and business model(s). These will be described below in some more detail.

4.1.1 Vision and Mission

Each Living Lab creates a vision and mission for their ICCP. A vision is a common goal for the cooperating partners in the ICCP that is inspiring to all and is easy to communicate. The ability to communicate is important for aligning interests of partners within the ICCP itself, but also when communicating with external partners or organisations about the project. Whether the goal is to engage them in the ICCP, collaborate in a pilot, or simply to inform them about ICCP activities, a clear and widely supported vision helps in working towards (shared) goals.

For the MOVE21 project itself a clear vision was already set at the start of the project focused on *transforming European cities and functional urban areas into climate-neutral, connected, multimodal urban nodes for smart and clean mobility and logistics.* This vision forms the basis for the visions formulated in the three Living Lab cities of MOVE21. Each Living Lab however specified this vision to their own local context, local policies and agreements and involved stakeholders to allow for the local representation. A mission is the description of what partners in the ICCP will *do* to achieve this vision.

4.1.2 Organisational model

The literature and practical experiences with Living Labs show that they can take various organisational forms, ranging from highly formalized and structured to more flexible and networked arrangements. There are three key elements of the Living Lab organisational model (see Figure 3 in chapter 3).

First, it emphasizes the creation of a broad Innovation Co-Creation Partnership which involves engaging a range of relevant organisations at the intersection of mobility and logistics. Second, it focuses on establishing a dedicated Task Force responsible for initiating and implementing key actions. This Task Force should include representatives from government, business, knowledge institutions, and civil society, embodying the "quadruple helix" model. Third, the agreement centres on the joint development of specific interventions or tests of innovative hubs that connect mobility and logistics streams to reduce carbon emissions.

4.1.3 Financing strategy and business model(s)

For each ICCP a financing strategy and business model is developed at two distinct levels. The first level is the Living Lab, where resources are generated, redirected, or combined to ensure the sustainability of the Living Lab for the long term. At this level, ongoing discussions within the city-wide ICCP are crucial to the strategy. The second level focuses on specific concepts or test sites, ensuring that the interventions tested and implemented within the Living Lab can continue independently of, for instance, project funding.

4.2 Experience from practice – examples from the Living Labs in MOVE21

During the establishment stage of the ICCP's (M1-M12, May 2021 – April 2022), each LL worked on the development of their organisational models, the mission and vision, and the business and financing strategy. In all three LL cities, the TFs have been established with partners from the MOVE21 consortium. These TFs have held several meetings to involve other stakeholders and organize co-creation sessions. Detailed results from this first stage are included in MOVE21 deliverable D6.5 as part of the reflective monitoring of the Living Lab cities. Below we highlight the key insights of the ICCPs in their set-up stage.

4.2.1 Oslo

The Oslo Living Lab is structured around the ICCP and a dynamic Task Force (TF). The flexible arrangement of the TF allows its composition to evolve based on project needs, engaging a broad range of stakeholders, including government, businesses, and knowledge institutions. In October 2022, the TF included: the City of Oslo, MixMove, TØI, Ruter, Urban Sharing, and Akershus. Direct engagement with citizens and civil society is expected at the test site level.

The TF meets weekly to discuss concepts and divide tasks. For concept development, the TF engages in a co-creation process, gathering ideas from partners and stakeholders, including the Business for Climate network. Ideas are analysed, and those selected for further development undergo additional co-creation sessions. Initially, the TF organised itself into smaller sub-groups around specific concepts but later decided to work collectively to avoid compartmentalisation.

In Oslo, the focus during the first stage was on the development of the following four concepts:

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

These concepts are to be tested at various designated test sites, including Filipstad, Lilleakerbyen, City Centre, and Grorud.

Oslo Living Lab's vision aligns with the city's Climate Strategy for 2030, aiming to achieve a one-third reduction in traffic and significant carbon emission reductions. The mission focuses on optimising infrastructure use and fostering collaboration across industries. The long-term viability of Oslo Living Lab depends on the financial sustainability of its individual concepts. Efforts in the establishment stage emphasize:

- Developing business models for each concept to ensure independence from public funding.
- Leveraging public funding as seed capital for initial testing phases.
- Establishing robust data-sharing agreements to support concept scalability.

4.2.2 Gothenburg

In the set-up stage, the Gothenburg Living Lab's TF consists of representatives from the City of Gothenburg, Business Region Gothenburg (BRG), Renova, and RISE. Direct engagement with citizens and civil society is expected at the test site level. The Task Force's composition is evaluated yearly to align with project needs, allowing for changes as necessary. The Task Force meets at least monthly and has structured the three test sites (Nordstan, Klippan, and Lindholmen) as working groups, each led by a designated member. The ICCP is connected to the Gothenburg Climate Partnership (GCP) and the Gothenburg Green City Zone (GGCZ) and involves local consortium partners and relevant stakeholders such as property owners and service providers.

Efforts at the test sites involve combining multiple interventions tailored to specific conditions. For example:

- Nordstan: Creation of a zero-emission micromobility hub with a handyman hub in the garage and a public centre for micro-logistics and bicycle services.
- Klippan: Integration of parking, bike sharing, and public transport, following a Mobility-as-a-Service platform.
- Lindholmen: Implementation of a net-zero emissions approach for business-to-business parcel delivery.

Within this deliverable, we showcase two examples of an ICCP within Gothenburg: the Mobility Hotel Nordstan and the Mobility Forum within the municipal organisation. The two are introduced below.

Mobility Hotel Nordstan
The Mobility Hotel in Nordstan exemplifies a collaborative, multifunctional hub that combines the efforts of diverse stakeholders from both the public and private sectors to innovate urban mobility and logistics. At its inauguration, the Mobility Hotel includes the following partners: BRG, the Urban Environment Department of the city of Gothenburg, Volvo, Nordstan (6 real estate owners), Pling (cargo bike transport), a bike service company (Bikefixx), an e-scooter maintenance company (Urban Corner), battery swap (GoCimo), cargo bike pool (City of Gothenburg), a professional wholesaler (Ahlsell) and shared facilities and co-working space. The partnership involves both established companies and smaller startups, creating a mix of experienced and new players. Not all partners were used to work together, therefore the working group organized workshops and meetings to facilitate the collaboration and to explore how the partners can support each other and create synergies.

Mobility Forum
The establishment of the Mobility Forum under the MOVE21 initiative demonstrates a strategic decision in the long-standing collaboration between the City of Gothenburg's Urban Environment Department and the Gothenburg Parking Company, who collectively own the brand Parkering Göteborg. While the two departments share a history of collaboration on operational level, the Mobility Forum emerged to address gaps in strategic alignment identified during MOVE21. Key participants in the mobility forum therefore include managers from both the city and the parking company, meeting monthly to discuss strategic issues and align their efforts. The forum aims to align strategic goals and political assignments, such as moving from parking spaces to mobility spaces and addressing climate and environmental goals. As both parties are part of the municipal organisation, they are working towards shared goals, such as reducing motorized traffic and transitioning to more sustainable transport solutions.

4.2.3 Hamburg

The TF in the Hamburg Living Lab is established with key partners from the MOVE21 consortium and is organised into two groups: strategic and policy-oriented partners, and implementation-oriented partners. The TF meets weekly and includes representatives from the Senate Chancellery, District Office of Altona, Ministry of Economy and Innovation, HafenCity University, and Deutsche Bahn. Its activities include workshops, co-creation sessions, and stakeholder analysis.

The ICCP in Hamburg is embedded within the Logistics Initiative Hamburg (LIHH), a public-private partnership supporting logistics innovation. This initiative, started by the Ministry of Economy and Innovation aims to advance the logistics-related economy through its extensive network. Direct citizen and civil society representation is foreseen at the test site level.

The test sites in Hamburg are located in the District of Altona, with two multifunctional neighbourhood hubs in Holstenstrasse and Kaltenkircher Platz. These sites will incorporate various interventions, combining logistics, mobility, and social/cultural services.

Hamburg's vision centres on reducing traffic and CO_2 emissions through innovative urban logistics and mobility hubs. Goals include:

- Piloting multifunctional hubs.
- Testing new integrated mobility and logistic offers, as well as new business models.
- Enhancing collaboration between diverse stakeholders.

In the early phase of the MOVE21 project, plans were made to establish a working group to promote discussions and collaboration with external stakeholders. Since the Ministry of Economy and Innovation and the LIHH were already preparing to set-up a working group on urban logistics, it was decided to merge these efforts to benefit both initiatives, particularly in involving a broad range of high-level external stakeholders. During the formation of the working group, several rounds of discussion took place due to the ambitious nature of its mission and vision. Risks that were identified included: the possibility of the working group becoming too broad and therefore competing with other organisations, losing clarity about its purpose if it became too large, and setting unrealistic expectations given its limited capacity to fulfil such a broad vision.

4.3 Cross-city insights

Each Living Lab has tailored its approach to their own local contexts, focusing on integrating mobility and logistics to reduce carbon emissions and improve their urban transport system. Continuous alignment on mission and vision, clear organisational models, and the development of sustainable business models are crucial for the long-term success of the initiatives. Despite the unique approaches of each city, several cross-city insights emerge. These are described below.

4.3.1 Vision and mission

Firstly, the value of working towards a shared mission and vision was strongly endorsed within MOVE21. It was highlighted that discussing the vision and mission helps stakeholders to better understand each other's expectations, align interests and the role they can play within the partnership. The main challenge, however, is that the vision and mission of the ICCPs tend to be rather broad and abstract. Operationalisation of the vision and mission within the project context then remains challenging, while the details are highly important during implementation. Therefore, discussions about vision and mission also emerged on the level of the test sites. Each test site team went through an iterative process of stakeholder analysis and workshops to identify needs, solutions and opportunities for their specific site. Moreover, agreement on a vision and mission among ICCP members does not automatically translate into organisational commitment; achieving consensus among individuals does not necessarily ensure that they have the mandate within the organisations they represent.

So, while having a shared vision and mission can effectively initiate discussions and bring stakeholders together, (1) it does not guarantee consensus when moving towards concrete actions and (2) it is not utilised as a steering mechanism for decision-making within the ICCP. When operationalising and moving towards implementation, this then leads to unclarity about the role of the ICCP and its relation to the Test Sites and Task Forces. Identifying a need for increased alignment of priorities and needs between the ICCP process on a strategic level and the implementation of measures on the Test Sites on an operational level. Connecting the mission and vision of the project, partnership and measures to an overarching city goal has proven to be effective in this regard.

4.3.2 Organisational models

Regarding collaboration between the government and quadruple helix partners, especially collaboration with citizens is seen as very challenging. Besides it being very difficult for governments to create long-term partnerships with citizens or citizen representatives' groups in any case, it was also highlighted that citizen involvement is not seen as relevant during the establishment stage as the project specifics are not yet clear enough to seek input or feedback from this group. In terms of the collaboration with knowledge institutes and industry – the triple helix – the effectiveness varies. The collaboration with partners that are officially involved in the project is seen as effective, as they are familiar with the context

and have committed to invest time and effort into the collaboration. However, it is found challenging to connect to and integrate new partners from adjacent sectors.

Another significant challenge in setting up the organisational model of the ICCP revolves around issues of mandate, including ownership, role allocation and task distribution. Placing the right individuals in the right position and clearly defining their tasks and responsibilities and ensuring that they feel and are empowered to act effectively within the ICCP.

The organisational design of the Living Labs proposed in MOVE21 has led to significant discussions within the Task Forces to understand and adapt the conceptual framework to each city's context. Generally speaking, the organisational models of the ICCPs in MOVE21 were not fixed and evolved over time. During the set-up stage, the Task Forces started to experiment with defining the roles and responsibilities to best shape the ICCP and MOVE21 project. The key principle being that the division of roles and responsibilities should be flexible to accommodate the changing needs and character of the project. This can mean a change in people, partners, but also the way of involvement. Working on specific measures on the test sites helps to shape the partnership and collaboration structure. The roles and responsibilities within the ICCPs, on the other hand, were much less defined during the establishment stage. During this stage, the role of the ICCPs and their relation to and distinction between the other elements of the MOVE21 project (the Living Lab, Task Force and Test Sites) was still unclear. The Living Lab project managers mentioned that the set-up stage is inherently uncertain and that having an established governance structure on Task Force level is needed before there can be clarity on roles on ICCP level and what to ask and to expect from other parties.

Summarizing, it can be said that there is a mismatch between the ICCPs broader long-term scope and the immediate operational needs of the project during its initial phases. The ICCP focuses on strategic partnership building, whereas the project also has various shorter-term goals such as setting-up test sites and meeting KPI's. With the latter creating a sense of urgency to demonstrate immediate results, often at the expense of the slower pace strategic alignment.

4.3.3 Financing strategy and business models

Each ICCP is expected to develop an initial business model in this set-up stage. While partners agreed that there is a need for a business plan and funding strategy, recognizing that without one the ICCP will not sustain, these discussions were not prioritised during the set-up stage. Within MOVE21, the relevance of funding strategies and business models was more immediate at the measure or test site level, focusing on sustaining specific measures rather than the broader quadruple helix collaboration. Moreover, the test site activities also invited new partners to participate in the ICCP discussions, instigating more strategic conversations about the ICCPs future. However, no concrete and formal business plans or funding strategies were established during this stage.

Factsheet ICCP Maturing Stage

Scope of the ICCP Maturing Stage

The maturing stage focuses on refining operational methods, expanding networks, and developing sustainable business models and funding strategies to ensure long-term ICCP sustainability. Core activities include promoting the ICCP brand, showcasing impact, testing business models, and finalising investment plans. Collaboration becomes more formalised, tailored to local contexts, involving key stakeholders across sectors.

Key steps to take in the ICCP Maturing Stage

The maturing stage involves several key activities, including:

- **Strengthen branding and outreach of the ICCP.** Develop a dissemination strategy to promote the ICCP and its innovations.
- **Expand and the local network.** Include stakeholders with significant influence in relevant sectors. Facilitate open communication to integrate new partners and align their contributions with ICCP goals.
- **Showcase milestones and impacts of innovation.** Highlight milestones and tangible benefits to boost stakeholder motivation and attract new partners.
- **Test and refine business models.** Adapt initial business models to local contexts and pilot outcomes.
- **Complete the investment plan.** Develop comprehensive investment plans and test funding strategies for the ICCP.

Insights from the ICCP Maturing Stage in Oslo, Gothenburg and Hamburg

Attracting and integrating new partners

- Dynamic organisational models and open communication are crucial but require constant effort to maintain alignment among stakeholders.
- Successful integration of new partners depends on open dialogue and ensuring equal opportunities for contribution.
- Need for development of tailored governance and funding frameworks for post-project sustainability.

Financing strategy and business models

- Long-term financial planning and sustainable business models were underdeveloped due to reliance on project funding.
- The focus on producing results in test sites has overshadowed the need to develop sustainable business models and agreements that would support the ICCP's long-term objectives.

Branding and visibility:

- Leveraging MOVE21 branding and showcasing progress through tangible activities boosted local engagement.
- External visibility to end-users remained limited, emphasizing the need for strategic communication efforts.

Details on the ICCP Maturing Stage are described in Chapter 5.

5 Maturing an ICCP

This chapter describes the second stage in the development of an ICCP; the maturing stage. This chapter takes a step back and reflects on the actions and steps towards maturing the ICCP and tries to understand how to go about this stage, what to focus on and what we can learn from the experiences within MOVE21. The core of this stage is highlighted in Figure 5.

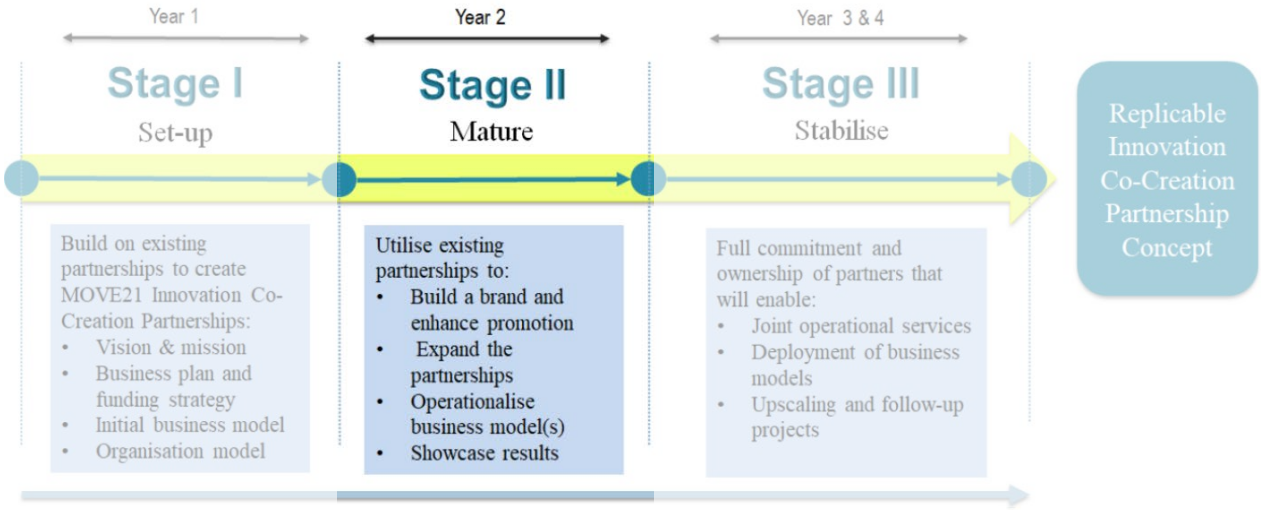

Figure 5: The second stage of ICCP development: the maturing stage

5.1 Methodology Maturing Stage

During the second stage of the ICCP development, partners work on refining operational methods and enhancing local innovation capabilities. By the conclusion of this stage, the ICCPs will have established sustainable business models and funding strategies to ensure their long-term sustainability. Key activities during this stage include:

- Promoting and enforcing the branding of the ICCP
- Expand the local network to include all relevant actors.
- Showcase milestones and impacts of innovations.
- Test and adapt initial business models.
- Complete the investment plan.

In this stage the partners in the ICCP formalize and structure their collaboration within a dissemination and outreach strategy. This strategy helps to actively promote and support the branding of the ICCP and their developed innovations. Additionally, the local network will be expanded to include stakeholders with a significant impact in relevant sectors, ensuring the network remains flexible to adapt to emerging opportunities and challenges. The actors involved will largely overlap with those in the existing partnerships and earlier stages of the ICCP development.

Furthermore, highlighting milestones that have been achieved and the impact of the innovations that the ICCP is working on is meant to boost motivation locally and facilitate outreach to beyond the test sites and to additional sectors. Initial business models will be tested and tailored to the local context and experiences of the ICCPs, culminating in a comprehensive investment plan for each partnership.

5.2 Experience from practice – examples from the Living Labs in MOVE21

The maturing stage of the ICCPs within the MOVE21 Living Labs [M13-M30, May 2022 – October 2023] represents a pivotal period where these partnerships refine their operational models, test business concepts, expand networks, and move closer to becoming self-sustaining. This stage involves evaluating initial pilot projects, addressing organisational and financial challenges, and laying the groundwork for stabilisation. Below, we provide a comprehensive overview of the progress, insights, and challenges across the three Living Lab cities: Oslo, Gothenburg, and Hamburg.

5.2.1 Oslo

During the maturing stage, the ICCP in Oslo included partners from government, private sector businesses, and a knowledge institute. As mentioned in chapter 4, the TF has a dynamic structure, with participants changing based on needs. At the end of the maturing stage, the TF met bi-weekly and included the following partners:

- City of Oslo, Agency for Urban Environment
- MixMove
- TOI
- Ruter
- Urban Sharing
- Akershus County

During this time, the ICCP was still in the process of finding its shape. New stakeholders were identified to join the ICCP – meetings were organized to further explore the potential role of new stakeholders in the partnership, these included:

- Mustad Eiendom (real estate company)
- CC Vest (shopping mall)
- BaneNor Eiendom (railway infrastructure)
- OBOS (housing developer)
- IKEA (furniture company)
- Oda (grocery delivery company)
- MASKE (office supplier)
- OneMed (medical equipment supplier)
- Mobility Solutions AS (service provider)

Key challenges faced include: bridging the domains of passenger mobility and freight transport, defining clear roles, and ensuring sustainability beyond MOVE21. Regarding the latter, the Oslo ICCP started to explore the possibility of creating an active branch of the Business for Climate network focused on urban logistics as a way to sustain the ICCP beyond the project lifetime.

The ICCP aims to align with Oslo's Climate Strategy for 2030, emphasizing emissions reduction, optimising the use of space, and minimizing traffic movements. Translating this vision into actionable measures remains a significant challenge.

Another challenge is creating realistic financing frameworks and engaging stakeholders for the ICCP on the long term without having financial incentives. During the maturing stage, financial strategies were tested at the concept level, where partnerships are formed around mutual benefits rather than direct financial results.

5.2.2 Gothenburg

During the maturing stage, the ICCP in Gothenburg involved government, private businesses, and knowledge institutions, and included a dynamic Task Force structure. In April 2024 the TF had grown to include:

- The City of Gothenburg, Urban Environment Department
- Göteborgs Stads Parkeringsaktiebolag
- Business Region Göteborg
- Volvo Technology AB
- Renova Miljö AB

The Gothenburg ICCP leveraged a decentralized model with dedicated working groups for the test sites Nordstan, Klippan, and Lindholmen. These working groups streamline operations and align stakeholder activities. Regular meetings, such as: monthly TF meetings, weekly meetings among test site leads and the Living Lab project manager, and quarterly ICCP meetings with co-creation sessions ensure effective coordination.

The overarching vision of transforming Gothenburg into a smart, zero-emission hub for mobility and logistics is supported by tailored missions for each test site. This approach ensures adaptability and alignment with evolving stakeholder interests and has shaped measures and activities accordingly. A significant challenge remains in constantly aligning with local conditions and securing long-term stakeholder commitment.

During the maturing stage, the Gothenburg TF explored different funding options which include municipal strategic funding and in-kind contributions. Business models vary across test sites but were actively developed and tested during this stage. With some focussing more on covering setup costs and others working towards ensuring long-term sustainability.

Mobility Hotel
Within the working group for the Mobility Hotel Nordstan, balancing the interests of various stakeholders, including the six real estate owners in the Nordstan Association, has proven challenging. The real estate owners were not formal partners in the MOVE21 project, and a collaboration agreement was signed during the project, laying out the shared goals, roles and responsibilities in developing the concept of a mobility hotel. Perspectives on the Mobility Hotel varied among the stakeholders, this can be influenced by differing perceptions of added value, resource availability, endurance, and their unique goals and experiences related to innovation and environmental priorities. Therefore, navigating their role and responsibilities is a continuous process. Establishing a shared goal provides a crucial reference point for aligning activities and decisions. It is seen as essential to have continued discussions on where and for whom value is created. In this regard, having effective communication – i.e. having multiple entry points and engagement channels within partner organisations and direct communication with decision-makers to ensure alignment – is heavily emphasized.

Mobility Forum
The mobility forum is seen as a vital platform for bridging the gap between strategic goals and operational-level challenges or key performance indicators (KPIs). While both departments – the City of Gothenburg, Urban Environment Department and Göteborgs Stads Parkeringsaktiebolag – work towards the same overarching climate goals, they are evaluated differently. For instance, the parking company must balance climate objectives with generating revenue for the city. The forum provides a valuable space to discuss and address misalignments. The success of the ICCP relies heavily on the

mindset of the participants. Being open-minded, cooperative, and willing to develop solutions together is essential. A shared goal plays a critical role in balancing differing interests and fostering collaboration.

During the maturing stage, the option of including other partners, such as public housing companies, public transport providers, and private organisations to address broader mobility and sustainability challenges, was also discussed. Existing collaborations already occur through various projects and daily operational interactions with these types of partners. However, these collaborations tend to be ad hoc or meeting-based rather than forming a structural partnership within the mobility forum.

5.2.3 Hamburg

The Task Force in Hamburg includes the following partners:

- Senate Chancellery (City of Hamburg)
- District Office of Altona (City of Hamburg)
- Ministry of Economy and Innovation (City of Hamburg)
- HafenCity University (HCU)
- Deutsche Bahn InfraGO (DB)

The TF meets weekly and organises biannually or demand-oriented internal deep-dive workshops to address key topics.

On initiative of the TF, a new working group has been formed at the Logistics Initiative Hamburg (LIHH), a public-private partnership bringing together diverse stakeholders from public organisations, private parties and academia. The new working group on urban logistics within LIHH has strong potential for long-term sustainability beyond MOVE21 and serves as the Innovation Co-Creation Partnership in the Hamburg Living Lab.

The ICCP's vision is aligned with the strategy of the City of Hamburg and focuses on reducing traffic congestion and CO_2 emissions through innovative mobility and logistics solutions. Key goals include: implementing multifunctional hubs, new urban logistic solutions, information about new regulations, enhancing stakeholder cooperation, and piloting inter-hub traffic solutions. Efforts to engage additional stakeholders have progressed, with meetings held with logistics users and local partners to explore pilot projects and upscaling opportunities. As an example, EU-project MoLo Hubs (Interreg North Sea) implemented an additional solution – the EcoHHub Station – in the Kaltenkircher Platz Test Site. Additionally, also the collaboration with the social stakeholders at the neighbourhood hub at Holstenstraße or in the on-demand shuttle test case for combined transport inherit potentials for upscaling which are for example investigated in a design study that focuses on further uses cases for the newly developed container system used at Kaltenkircher Platz.

The LIHH working group benefits from a viable business model supported by the Ministry of Economy and Innovation. The goal is to refine business models for test sites, with a goal to establish sustainable frameworks based on the project's conclusions. The working group meetings are open to all invited stakeholders (even though they normally work with a membership fee), ensuring broad participation and input. Meetings are held quarterly and last about three hours. During these meetings there is space for discussion with inputs from external experts.

5.3 Cross-city insights

The maturing stage of the ICCPs across Living Labs highlighted both strengths and challenges in improving collaboration among partners, achieving project goals, and also starting to think beyond the

project lifetime. Across the ICCPs, it can be argued that flexible organisational models have supported the development of the partnerships over time. However, emphasizing that this flexibility also required constant communication and alignment to ensure effective operation among stakeholders. During this stage, business models at the test site level are developed and tested across the Living Lab cities, but establishing ICCP-level funding strategies has proven particularly challenging.

ICCPs have taken varied approaches to branding. Many leverage the MOVE21 brand alongside their existing partner brands, with strategies ranging from promoting MOVE21's unique identity to embedding its results into broader urban initiatives. On a test site level, activities have demonstrated tangible benefits, which led to increased stakeholder engagement on the local level.

As the ICCPs transition into the stabilising stage, two key priorities have emerged. First, sustaining these partnerships beyond the MOVE21 project is dependent on the development of tailored governance and financial frameworks. Second, scaling successful pilot measures, such as multifunctional hubs and integrated logistics solutions, will be critical to maximising the impact of MOVE21 innovations.

5.3.1 Attracting and integrating new partners

The success of attracting new partners varied across ICCPs and often occurred at the test site or measure level rather than at the broader ICCP level. Partners involved at the test site or measure level were also invited to participate in more strategic ICCP discussions, with flexibility regarding their level of engagement. Partnerships ranged from informal collaborations to more structured engagements, with different levels of involvement depending on whether the focus was strategic or operational.

While ICCPs were open to new partners, there was not always an active prioritisation of acquiring or integrating them into the ICCP structure. Successful integration relies heavily on open dialogue and a willingness to involve new partners as equals, ensuring they have the opportunity to influence goals and contribute meaningfully.

5.3.2 Financing strategy and business models

Developing robust business plans and funding strategies has been a significant challenge for the ICCPs. Funding from MOVE21 reduced the immediate urgency to address long-term financial planning. During the maturing stage, the ICCPs in MOVE21 were not advanced enough to actively focus on sustainability beyond short-term project goals. The focus on producing results in test sites has overshadowed the need to develop sustainable business models and agreements that would support the ICCP's long-term objectives. One of the reasons being a lack of clarity around the ICCP as a distinct entity requiring its own governance, financing, and strategic direction. The primary lesson learned is the necessity of aligning the immediate project goals with the long-term sustainability of the collaboration.

5.3.3 Branding and visibility

The effectiveness of showcasing project milestones and impact varied across ICCPs. Successful efforts often leveraged both internal and external platforms, such as consortium meetings, city newsletters, and uptake of insights in policy documents. These efforts not only highlighted progress but also created opportunities to showcase results to a broader audience.

The ICCPs did not develop a distinct, recognizable brand identity during the project. However, the MOVE21 project itself had a recognizable brand identity, particularly within municipal organisations.

External visibility of the brand identity, especially among end-users, was limited, as city-focused marketing was often deemed more relevant to citizens than a project-specific identity.

Visible, physical activities, such as test site openings, proved effective in attracting attention and creating awareness among stakeholders. While branding was not an explicit goal of the ICCPs, connections to existing partnerships created opportunities to promote the ICCP scope and achievements in broader contexts.

Factsheet ICCP Stabilising Stage

Scope of the ICCP Stabilising Stage

The stabilising stage focuses on solidifying the ICCP foundation by ensuring partner commitment, refining operational services, and implementing business models for service innovations. This stage is crucial for testing and validating the approaches developed in earlier stages, ensuring they are robust, sustainable and scalable.

Key steps to take in the ICCP Stabilising Stage

The stabilising stage includes the following main activities:

- **Develop operational services.** Establish services and facilities to ensure continuous functionality and support of the ICCP.
- **Deployment of business models**. Develop and deploy specific business models for services that improve operational efficiency.
- **Scale innovations**. Focus on upscaling successful projects and launching follow-up innovation projects to expand the impact locally and beyond.

Insights from the ICCP Stabilising Stage in Oslo, Gothenburg and Hamburg

Formalizing collaboration

- Formalizing collaboration through agreements and contracts is essential to set clear expectations and responsibilities, including defining objectives, communication protocols, performance metrics, resource allocation, and decision-making processes.
- Clearly defining stakeholder roles, ensuring compliance with regulations, specifying reporting requirements, managing risks, and planning for long-term sustainability are crucial for effective collaboration.
- Successful partnerships must be adaptable to changing circumstances and resilient to challenges, ensuring long-term success and innovation.

Goal setting

- Consistently keeping key topics on the agenda through structured meetings and collaborative efforts ensures ambitions and objectives remain at the forefront, driving progress and stakeholder alignment.
- Continuous dialogue, clear communication, and embedding goals in city policy are essential for aligning goals, fostering collaboration, and ensuring long-term support and integration into broader initiatives.
- Adaptability to stakeholder needs and flexibility in goal setting and project execution are vital for maintaining engagement and ensuring the collaboration remains relevant and effective.

Quadruple Helix involvement

- Quadruple Helix Cooperation involves collaboration among academia, industry, government, and civil society to foster innovation and address societal challenges.
- Open communication, endurance, and trust-building are essential for successful collaboration. Thoroughly discussing expectations, recognizing different development speeds, and being patient and persistent help align goals and achieve long-term success.
- Continued marketing and branding efforts are necessary to attract more customers and partners. Effective strategies highlight the benefits and successes of the cooperation, emphasizing its unique value proposition and potential for innovation.

Building on existing partnerships

- Connecting to established networks and leveraging their strengths enhances the sustainability and impact of collaborative efforts by providing a foundation of trust, proven processes, and successful collaboration history.
- Established networks facilitate collaboration, resource sharing, and collective problem-solving, offering access to diverse stakeholders, expertise, funding, and infrastructure.
- Utilizing existing partnerships helps to address complex challenges and develop innovative solutions more effectively.

Upscaling and follow-up projects

- The success of implemented measures motivates ongoing collaboration by reinforcing stakeholder commitment and highlighting potential for further achievements, leading to exploration of additional opportunities.
- Continuous evaluation and recognition of opportunities within the partnership are crucial for strategic planning of follow-up projects and continuation of effective measures.
- Successful partnerships are proactively discussing follow-up work to maintain momentum, drive further innovation, and enhance impact.

Details on the ICCP Stabilising Stage are described in Chapter 6.

6 Stabilising an ICCP

This chapter will describe the final stage of the ICCP-cycle, the stabilising stage. This chapter details the steps and actions towards stabilising the ICCP based and shares examples of the ICCPs in MOVE21's three living labs. It will describe some stabilising results in the project, and the different types of models that can be derived for stabilising. This final stage of ICCP-development is depicted in Figure 6.

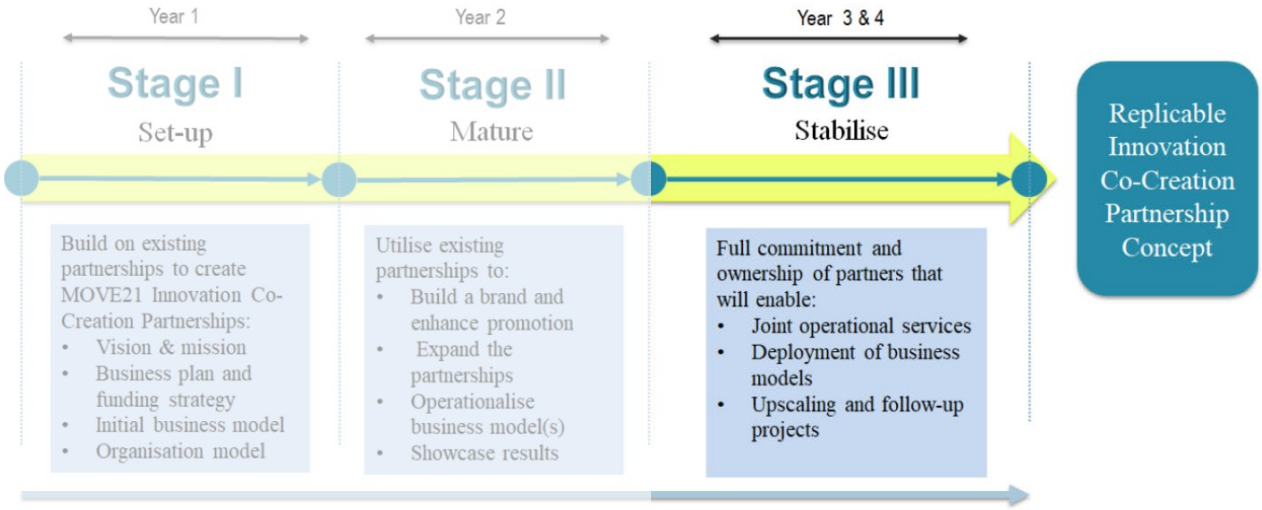

Figure 6: The third stage of ICCP development: the stabilising stage

6.1 Methodology Stabilising Stage

In the Stabilising Stage, the focus shifts to solidifying the foundation of the Innovation Co-Creation Partnerships. During this period, partners are expected to demonstrate full commitment and clear ownership of their roles. Only minor adjustments in the organisation of the Partnership may be necessary to ensure its long-term sustainability. Key activities during this stage include:

- Develop operational services and joint facilities.
- Deploy dedicated business models for service innovations.
- Develop upscaling and follow-up open innovation projects.

Firstly, operational services and joint facilities are established to support the ongoing functions of the ICCP. This involves creating dedicated business models for (mobility and logistics) service innovations, which are then implemented to enhance efficiency and effectiveness. Additionally, efforts are made to develop and deploy upscaling and follow-up open innovation projects, which can be local, national, or international. These projects aim to build on initial successes and expand the reach and impact of the innovations.

Secondly, the partnerships work on refining their business models and operational strategies to ensure they are well-suited to the local context and can be adapted as needed. This stage is crucial for testing and validating the approaches developed in earlier stages, ensuring they are robust and sustainable.

6.2 Experience from practice – examples from the Living Labs in MOVE21

The stabilising stage of the ICCPs within the MOVE21 Living Labs [M31-M48, November 2023 – April 2025] focuses on becoming self-sustaining. This stage involves full commitment and ownership of partners that will enable joint operational services, deployment of business models and upscaling and follow-up projects. Below, we provide examples of sustained ICCPs in the three Living Lab cities: Oslo, Gothenburg, and Hamburg.

6.2.1 Oslo

In Oslo the ICCP is sustained as a working group in the existing partnership of Oslo Business for Climate. In this partnership work until now has been focused on ways of electrifying cargo vans and heavy transport. The opportunity that is seen, connects to the topic of urban logistics, a new topic to the Oslo Business for Climate partnership.

The City of Oslo leads the Business for Climate network and is in charge of organizing meetings and facilitating discussions. The network serves as a platform for businesses to share best practices, collaborate on projects, and provide feedback on municipal policies. Meetings are held regularly and facilitate the discussion between companies and the municipality, with presentations from both sides on relevant topics. These meetings are open to all, not just network members. The meetings also help to recruit new members and partners for innovation projects/pilots.

The City of Oslo aims to sustain the work that they have been doing with the ICCP in MOVE21 by integrating a branch on urban logistics into the transport forum of the Business for Climate network. This branch has recently been set up and is at the beginning of the process of institutionalising. The City sees a high added value in building on an existing network instead of developing a new one.

Regarding the topic of urban logistics, the City of Oslo is working to define its role in facilitating urban logistics and supporting business-led innovation. There is a need for clearer pathways and measures for urban logistics on city level before starting to actively engage businesses. The newly established branch can support to further shape this role.

For the businesses and private partners that are involved in the network, it is a platform for them to share their challenges and issues and address barriers regarding policy and regulations that hinder their work. This could then be further connected to the governmental level, to local, regional or national level.

In terms of sustainability of the partnership, the Business for Climate network and transport forum are well established and are expected to continue. However, the continuation of the MOVE21-inspired branch on urban logistics depends on the willingness of businesses to participate in pilot projects and the municipality's ability to facilitate these projects. This will take effort in the coming period to start building on joint goals and creating trust.

Future pilot projects can be designed based on feedback and needs identified through the network. This requires an effort from both government and private partners. For the municipality to steer on their goals, and to define relevant actions and measures. Based on that, businesses can start thinking about the role they can and want to take. The municipality's role may vary from active project leadership to facilitation, depending on the needs and dynamics of the partnership. This is still to be decided.

6.2.2 Gothenburg

In Gothenburg the ICCP has sustained in a long-term collaboration that emerged from the Nordstan test site. The test site Nordstan has developed a zero emission micromobility hub, The Mobility Hotel in Nordstan. A large number of partners is involved, beyond the project partners. Here the project partners involved concern the municipality of Gothenburg, Business Region Gothenburg and Volvo, who collaborate with property owners' association Nordstan samfällighet which is consisting of six property owners. Five companies have signed contracts and collaborating and are also users of the service technician's hub. The contracts that are signed, allow for continued cooperation for at least 3 years – and spans beyond the lifetime of the project.

At this point in time (December 2024), contracts have been signed, that assure the cooperation between stakeholders within the Mobility Hotel in Nordstan beyond the lifetime of the project. The operational business model consists of shared costs and risks for facilities, services already developed in collaboration with various stakeholders, as well as an active exploration of opportunities for new services and value propositions targeting both individuals and businesses. Discussions on business models focus mainly on collaboration and creating win-win situations.

The Mobility Hotel has established a new governance model to ensure sustainable operation beyond MOVE21. Operational, strategic, and communication groups are formed to manage the partnership. In bi-monthly meetings the founding partners will follow up on the upscaling possibilities, the business model and the joint communication. In monthly meetings all participation partners in the Mobility Hotel are continuing to develop new solutions and find new possibilities to collaborate, besides the daily work being done in the shared facilities that will be open during business hours every day.

Ensuring long-term sustainability requires leadership and governance. Nordstan is expected to take a more active role in leading the Mobility Hotel in Nordstan. Upcoming strategy meetings will address the need for Nordstan to take a more proactive role and explore funding options. A suggestion to find these options is that all partners can come up with a collective finance structure of the partnership. Though contracts are signed for 3 years, this asks for more than only contracts to keep the partnership active beyond MOVE21. The City of Gothenburg and Business Region Gothenburg (BRG) are phasing out their operational roles and the leading role will be transferred. Long-term collaboration could include a letter of intent or a memorandum of understanding, but this has not been developed yet. The City of Gothenburg has reflected on the role they will have on the long term. The city aims to creating long-term conditions for sustainable mobility through policies, regulations, and strategic planning while continuing to communicate and integrate the experiences into relevant initiatives and forums, as is the Mobility Hotel in Nordstan.

In this stage we also see upscaling taking place. The Mobility Hotel is attracting growing interest from customers on both the private and business sides. Shared services and facilities are already enhancing convenience and resource efficiency between the companies in the Mobility Hotel. For example, cargo bike staff support in last-mile deliveries and assist with pop-up maintenance services, sharing bicycle pumps and sharing charging equipment. Furthermore, the bike shop now oversees rentals and maintenance of bikes in the bike pool offered by the municipality. These collaborations continue to develop, offering practical benefits and fostering a sense of shared purpose among the actors involved.

Governance has also evolved, with the original test site working group now split into three dedicated teams focusing on strategy, operations, and communications. This structure bolsters long-term development and strengthens collaboration between stakeholders. The partners are now exploring opportunities to expand the Mobility Hotel concept across Gothenburg.

There are ambitions to upscale the Mobility Hotel concept to other locations in Gothenburg, leveraging the lessons learned from Nordstan. Upscaling can be seen as a means for stabilising, the more mobility hotels there are, the more it would benefit Nordstan. They gain from their position as "good example or frontrunner" and therefore remain relevant.

Mobility Forum
The brand Parkering Gothenburg is seen as a foundation for the collaboration between the two parties: the City of Gothenburg and the Parking Company (i.e. Parkeringsbolaget). While the Mobility Forum is a spin-off of MOVE21, both parties see the need for continuation after the project lifetime. Having a necessity to collaborate, for example because you work together on the same political / city goals, makes that you also have the mandate to set-up a formal meeting structure.

The partnership consists of a steering group, working groups on various subjects regarding sustainable travel and regular informal meetings ("coffee meetings"). The steering groups operates on the highest management level. The working groups are focused on dedicated topics. The coffee meetings facilitate open communication and help identify and address strategic issues. Additionally, having funded innovation projects or pilots in place also drives the conversation as there is a risk of it not being as important when everyone is overloaded with their everyday work.

6.2.3 Hamburg

In Hamburg the ICCP is sustained as a working group in the Logistics Initiative Hamburg. The Logistics Initiative Hamburg is a cluster connected to the Hamburg Ministry of Economy and Innovation and was established in 2006 to facilitate communication between the ministry and companies as well as among stakeholders like logistics service providers, industry & trade, research & development, start-ups, numerous public institutions and industry-related companies.

The working group aims to continue beyond the MOVE21 project, leveraging the established network and structure. The Logistics Initiative's funding is renewed annually, and the working group's activities (of the employees of the ministry) are covered as a public expense of the ministry. The working group will continue to identify and address relevant topics, ensuring they remain aligned with the interests of stakeholders.

Besides the network element of bringing together stakeholders on specific topics, there is an ambition within the urban logistics working group to collaboratively work on project/pilots with partners from the working group. The structure of these projects may vary in size, timeline and content, but they are seen as an additional means to sustain and fund the working group.

Concerning the quadruple helix focus, the involvement of citizens in the working group was not sought since the format is tailored to stakeholders who are actively involved in urban logistics and have expert knowledge of that topic.. Citizen's involvement can be highly relevant, but rather on an operational test site level. In the case of MOVE21 there was a sufficient feedback loop from the test site level to the working group through the Task Force to ensure citizen feedback is taken up where needed.

6.3 Cross-city insights

6.3.1 Formalizing collaboration

In the realm of collaborative projects, formalizing collaboration is an important precondition. Simply being a stakeholder of interest does not suffice to engage and involve a stakeholder effectively for the long term. Instead, formal agreements and contracts are a way to establish clear expectations and responsibilities. Regarding expectations, the following topics are relevant to address:

- *Objectives and Goals*: Clearly define the shared objectives and goals of the collaboration. This ensures all parties are aligned and working towards the same outcomes.
- *Communication Protocols*: Establish how and when stakeholders will communicate. This includes regular meetings, reporting structures, and channels for urgent communications.
- *Performance Metrics*: Set measurable criteria for success. This could include timelines, quality standards, and specific deliverables.
- *Resource Allocation*: Detail the resources each stakeholder is expected to contribute, such as funding, personnel, equipment, or expertise.
- *Decision-Making Processes*: Outline how decisions will be made, including who has authority and how conflicts will be resolved.

Regarding responsibilities the following topics are of relevance:

- *Roles and Activities*: Clearly define the roles and activities of each stakeholder. This helps prevent overlap and ensures accountability.
- *Compliance and Regulations*: Ensure all parties are aware of and comply with relevant laws, regulations, and industry standards, which can be locally / regionally specific.
- *Reporting and Documentation*: Specify the requirements for reporting progress and documenting activities. This ensures transparency and facilitates monitoring and evaluation.
- *Risk Management*: Identify potential risks and outline the responsibilities for managing and mitigating these risks.
- *Sustainability and Continuity*: Plan for the long-term sustainability of the collaboration, including responsibilities for maintaining and scaling the project.

For partnerships to be successful, they must possess the flexibility to adapt to evolving circumstances and the endurance to navigate challenges over time. This adaptability ensures that collaborations can withstand changes and continue to thrive, fostering long-term success and innovation.

6.3.2 Goal setting

A topic that has been mentioned regularly is goal setting. In collaborative projects, agenda setting remains a critical component. The principle of "out of sight, out of mind" underscores the importance of keeping key topics consistently on the agenda. By maintaining structured meetings and collaborative efforts, we ensure that our ambitions and objectives remain at the forefront of our activities. This continuous focus helps drive progress and keeps all stakeholders aligned and engaged.

Ways to work on goals setting connect to different elements:

- Continuous Dialogue and Clear Communication: One of the pivotal lessons from the Hamburg /LIHH experience is the necessity of ongoing dialogue and transparent communication. These elements are essential for aligning goals and fostering effective collaboration among stakeholders.
- Embedding Goals in City Policy: Having goals that are embedded or anchored in city policy, or at least aligned with city goals, is crucial. This alignment helps create a mandate to work on

specific topics and ensures long-term support for activities. It also facilitates the integration of project goals into broader city initiatives, enhancing their relevance and impact.

- Adaptability to Stakeholder Needs: The ability to adapt and address the evolving needs and interests of stakeholders is vital for maintaining engagement. Flexibility in goal setting and project execution allows for adjustments in response to changing circumstances, ensuring that the collaboration remains relevant and effective.

By incorporating these lessons and maintaining a strong focus on agenda setting, collaborative projects can achieve their goals more effectively and sustain their impact over the long term. Continuous dialogue, clear communication, policy alignment, and adaptability are all key components of successful goal setting and collaboration.

6.3.3 Quadruple Helix involvement

Quadruple Helix Cooperation involves collaboration among four key sectors: academia, industry, government, and civil society. This model fosters innovation and addresses complex societal challenges by leveraging the strengths and perspectives of each sector. First of all, the topic of *inclusive partner selection* is of relevance.

The following experiences stood out in MOVE21:

- Mature and less mature partners: It is essential to include partners that are experienced in similar types of cooperation. However, it is equally important to create space for less experienced partners, f.i. start-ups. Developing models or structures that allow participation regardless of experience can foster innovation and bring fresh perspectives.
- Real Estate Owners: Collaborating with real estate owners who see the value of the concept is crucial. Their involvement can provide the necessary infrastructure and support for the project's success.
- Citizen involvement: In all MOVE21 Living Labs it has been a challenge to involve citizens – as part of the quadruple helix – in the more strategic partnerships. However, in the overall governance, where test sites have been developed for testing pilots the citizens were closer and actively involved in development and interaction.

Furthermore, *open communication* is key. The devil is in the details, so it is important to discuss each other's expectations thoroughly. This transparency helps prevent misunderstandings and aligns everyone towards common goals. Also, *endurance and trust building* are elements that have often been mentioned as important factors. It is important to recognize that the speed of development differs among partners. Endurance is key, as it takes time to settle and build trust. Patience and persistence are necessary to navigate these differences and achieve long-term success.

Finally, continued efforts in *marketing and branding* are necessary. To attract more customers and partners, ongoing efforts in marketing and branding are essential. Effective marketing strategies can highlight the benefits and successes of the cooperation, drawing in new participants and fostering a positive reputation. Branding efforts should emphasize the unique value proposition of the collaboration, showcasing its impact and potential for innovation.

6.3.4 Building on existing partnerships

By connecting to established networks and leveraging their strengths, collaborative efforts can achieve greater sustainability and impact.

Connecting to an existing partnership that is already sustainable can significantly ease the continuation of meeting and collaboration structures. Established partnerships provide a foundation of trust, proven processes, and a history of successful collaboration. This foundation makes it easier to maintain momentum and ensures that collaborative efforts are not starting from scratch.

Utilizing established networks, such as the Logistics Initiative Hamburg (LIHH), Business for Climate in Oslo or networks connected to real estate, the construction & transport industry as well as micromobility industry as done in Gothenburg, can greatly enhance the sustainability and impact of innovation partnerships. These networks offer a robust platform for:

- Collaboration: Established networks facilitate collaboration by bringing together diverse stakeholders with a shared interest in innovation and sustainability.
- Resource Sharing: These networks provide access to a wealth of resources, including expertise, funding, and infrastructure, which can be critical for the success of collaborative projects.
- Collective Problem-Solving: By leveraging the collective knowledge and experience of network members, partnerships can more effectively address complex challenges and develop innovative solutions.

6.3.5 Upscaling and follow-up projects

The success of measures implemented within a partnership proves to be a significant motivator for ongoing collaboration. When stakeholders witness tangible results and positive outcomes, it reinforces their commitment to the partnership. This success not only validates the efforts invested but also highlights the potential for further achievements. As a result, partners are more likely to explore additional opportunities and continue working together to build on their successes.

Acknowledging the opportunities that exist within the partnership is crucial for identifying areas for further development. Successful partnerships often involve continuous evaluation and reflection on what has been achieved and what more can be done. By recognizing these opportunities, partners can strategically plan for follow-up projects and the continuation of effective measures.

The Living Labs that have succeeded are already discussing follow-up work, either in the form of new projects or the continuation of successful measures. This proactive approach ensures that the momentum gained from initial successes is not lost. Instead, it is harnessed to drive further innovation and impact.

7 Conclusions and Recommendations

7.1 Conclusions

7.1.1 Lessons learned from ICCPs in MOVE21

In this section we highlight the main lessons learned in each development stage of the ICCP.

Set-up Stage

- ICCPs in MOVE21 stressed the need for a shared vision and mission to align stakeholder expectations and roles but faced challenges in translating consensus into organisational commitment and aligning strategic goals with operational priorities.
- Connecting strategic goals to overarching city objectives was found to improve alignment and leverage.
- Organisational challenges included defining mandates, ownership, role allocation, and task distribution, with flexibility being key as the project evolved.
- Balancing long-term strategic partnership building with short-term operational demands is essential to avoid misalignment.
- Sustainable funding strategies were crucial for the partnership's sustainability, though initial focus was on test site-level funding (for the implementation of pilots / measures) in the Living Labs. Long term funding on a partnership level is often a challenge, as the partnership still needs to evolve and strengthen trust and relationship building.

Maturing Stage

- Dynamic organisational models and open communication are essential for maintaining stakeholder alignment but require ongoing effort.
- Successful integration of new partners hinges on open dialogue and equal opportunities for contribution, with tailored governance and funding frameworks needed for post-project sustainability.
- Leveraging MOVE21 branding and showcasing tangible progress boosted local engagement, though external visibility to end-users remained limited.
- Strategic communication efforts are necessary to enhance external visibility and support long-term objectives.
- Development of business models was prioritised on test site level, connected to implementing pilots and measures. Explicit emphasis and focus are needed, to also take into account the impact on long-term funding beyond the pilot / measure level, connected to sustaining the partnership; to unleash funding for new projects and implementations.

Stabilising Stage

- Formalizing collaboration through agreements and contracts is crucial for setting clear expectations, responsibilities, and decision-making processes.
- Clearly defining stakeholder roles, ensuring compliance, and planning for long-term sustainability are essential for effective collaboration.
- Successful partnerships must be adaptable and resilient to ensure long-term success and innovation.
- Keeping key topics on the agenda helps drive progress and stakeholder alignment.
- Continuous dialogue, clear communication, and embedding goals in city policy are vital for fostering collaboration and long-term support.
- Adaptability and flexibility in goal setting and project execution are necessary to maintain engagement and relevance.

- Open communication, endurance, and trust-building are essential for successful Quadruple Helix collaboration.
- Leveraging existing networks enhances sustainability and impact by providing a foundation of trust and proven processes.
- Continuous evaluation and proactive discussion of follow-up projects are crucial for maintaining momentum and driving further innovation.

7.1.2 Overarching reflections – key aspects for ICCP development

Based on the main lessons learned, we see common aspects coming through in each stage. These are aspects that require permanent attention within the development and sustaining of the Innovation Co-Creation Partnership.

Maintaining a continuous focus on balancing short-term and long-term objectives is crucial for the success of any partnership. By ensuring that immediate actions align with overarching goals, partnerships can achieve quick wins while laying the groundwork for sustainable progress. This approach not only keeps stakeholders motivated but also ensures that the partnership remains relevant and adaptable to changing circumstances.

Connecting the efforts of the partnership to a shared vision and mission is essential for cohesive progress. Defining clear goals and embedding these into city policies and organisational structures helps to align stakeholder actions and resources towards common objectives. This integration fosters a sense of ownership and commitment among partners, ensuring that their contributions are both meaningful and impactful.

Flexibility and adaptability are key to maintaining a dynamic and resilient partnership. An open attitude towards potential new partners allows the partnership to evolve and grow, incorporating fresh perspectives and expertise. Welcoming new members who are willing to contribute to the shared vision ensures that the partnership remains innovative and responsive to emerging challenges and opportunities.

When formalizing collaboration in a partnership, it is essential to explicitly consider the degree of agreement and formalization required. This involves assessing the nature of the partnership, the complexity of the tasks, and the level of commitment needed from each stakeholder. Formalization can range from informal agreements and memorandums of understanding to detailed contracts and legally binding documents. The chosen approach should reflect the partnership's goals, ensuring clarity and mutual understanding without stifling flexibility and innovation.

Clearly defining roles and responsibilities is crucial for the success of any partnership. Each stakeholder should understand their specific activities / tasks and how they contribute to the collective goals. This clarity helps prevent misunderstandings and ensures that all partners are working towards the same objectives. Regular reviews and updates of these roles can help maintain alignment and adapt to changing circumstances. In the process, democratic principles, ensuring everyone has equal opportunity to speak freely are of importance. Additionally, leadership of the partnership should allocate time for group reflection to discuss issues, questions, and frustrations, which helps build trust and fosters productive collaboration.

Connecting individual interests and goals to collective interests and goals is vital for fostering a cohesive and motivated partnership. By aligning personal and organisational objectives with the partnership's overarching mission, stakeholders can see the value of their contributions and remain committed to the shared vision. This alignment can be achieved through continuous dialogue, transparent communication, and embedding the partnership's goals into broader organisational and city policies.

Reflective monitoring – as part of the governance and processes in the ICCP – provides significant added value by offering an impartial reflection on group processes and dynamics, which is often appreciated by members of the partnership. This neutral perspective helps the group to step back from daily problem-solving routines and recognize their achievements, maintaining morale and motivation. The local monitor's balanced analysis and feedback highlight both successes and areas for improvement, ensuring the group remains aligned with its goals. By emphasizing even small accomplishments, the local monitor helps the group see the bigger picture and adjust their course as needed. This role is crucial for fostering continuous progress and development within the partnership.

7.2 Recommendations

The Innovation Co-Creation Partnerships (ICCP) range from voluntary participation of its members, which preferably includes quadruple helix partners, i.e. academia, industry, government and civil society up to more formalized collaboration structures. The voluntary nature means participants undertake collective actions without formal obligations or sanctions for non-fulfilment of their roles, unfulfilled promises, or even withdrawal from the collaboration. While this flexibility fosters inclusivity, it can also make the collaboration challenging to navigate. More formalized collaboration structures[1] overcome free rider behaviour, however depending on entering criteria can also limit openness of the partnership, focus on more strict decision-making structures (allowing for less flexibility) and create a more top-down nature as coordination is more formalized.

To ensure the longevity and success of a partnership, it is crucial to think about sustainability from the very beginning. To ensure the success of ICCP collaborations, there are several key success factors. Regardless the collaboration set-up, these factors are preconditional: 1) clear and mutually important goals, 2) tangible benefits for all participants, 3) building and sustaining trust, 4) minimizing costs and risks, and 5) effective communication and shared identity. These five success factors are described below:

1. Clear and Mutually Important Goals
One of the most critical success factors is setting clear, mutually agreed-upon goals that are significant to all parties involved. These goals provide a shared direction and ensure that all participants are aligned in their efforts, strengthening their collective commitment.

2. Tangible Benefits for All Participants
The collaboration must deliver benefits to all members, which can be categorized into three types:

- **Economic Benefits**: These include profitable investments and projects that align with decarbonization goals while remaining financially viable.
- **Social Benefits**: Participants gain visibility, build positive reputations, and enhance their prestige by contributing to decarbonization efforts.

[1] More examples on public private collaboration – based on examples from the MOVE21 project – can be found in the White Paper on Public Private Collaboration (2024)

- **Normative Benefits**: Involvement provides members the satisfaction of contributing to climate action and the well-being of future generations.

Of course, the way the benefits materialise for each actor differ, depending on the priorities and perspectives the actor feels are important. Often at least two types of benefits are necessary for actors to remain committed to a collaboration. The presence of these varied benefits reinforces members' dedication to the collaboration.

3. Building and Sustaining Trust

Trust is the cornerstone of collaboration. Participants in voluntary collaboration must rely on each other without the enforcement of sanctions. Participants in more formalized collaborations need trust to define the needed agreements or contracts. Here, agreements and contracts are the vehicle to define mutual expectations. Trust can be fostered and maintained through:

- **Transparency**: A constant flow of information about the partnership's activities, project plans, and progress ensures transparency and helps build confidence among members.
- **Small Wins**: Achieving consistent, visible progress reinforces the perception that the collaboration is on the right track.
- **Code of Conduct**: Establishing a code of conduct provides guidelines for collaboration and ensures a shared understanding of expectations and acceptable practices. In formalized collaborations, this is often captured in agreements and/or contracts.

4. Minimizing Costs and Risks

To encourage participation, the costs and risks associated with collaboration must be minimized. This can be achieved by ensuring the operation of the ICCP is smooth, efficient, and well-structured. Key strategies include:

- **Institutionalized Operations**: Clearly defining roles, responsibilities, and workflows makes collaboration predictable and accountable. This includes identifying who coordinates the collaboration, the frequency and format of meetings, and the methods used for planning and evaluation. Functions such as coordination, evaluation, and tracking learning outcomes should be explicitly assigned.
- **Thematic Groups**: Organizing participants into thematic groups based on goals and sub-goals helps streamline tasks and distribute responsibilities effectively. Setting clear timelines and milestones ensures steady progress.
- **Hybrid Systems**: Combining voluntary participation with professional support (that is financially supported) can enhance the collaboration. The professional support can be organized by appointing a partner within the partnership or (jointly) recruiting an external coordinator. Professionals can manage critical tasks, coordinate activities, and maintain accountability, ensuring the collaboration remains well-organized and efficient. An external professional can be a more neutral entity within a partnership.

5. Effective Communication and Brand Identity

Communication plays a crucial role in the success of any collaboration. While the constant flow of information is essential for building and maintaining trust among members, creating a shared identity for the partnership can further strengthen group spirit and internal commitment.

A shared identity may include elements such as:

- A distinct name for the partnership.
- A dedicated website.
- Regularly organized events or initiatives under the partnership's banner.

This shared identity not only fosters a sense of belonging among members but also enhances the partnership's visibility and reputation when communicated to external audiences. The increased recognition can serve as an additional social benefit for members, further encouraging their active participation and long-term commitment.

By focusing on these success factors, ICCP collaborations can overcome the inherent challenges and create meaningful, impactful outcomes. These principles help foster a sustainable, transparent, and goal-oriented environment, ensuring the success of joint decarbonization initiatives.

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