



MOVE

21

INNOVATION MANAGEMENT VISION, STRATEGY, AND PROCESS

Project deliverable D1.2

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



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Project Executive Summary

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

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

MOVE21 partners

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

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



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Deliverable executive summary

Key words

Innovation management, innovation management principles, innovation management vision, innovation management strategy, innovation management process

Summary

The purpose of deliverable D1.2 is to present the overall innovation management approach to be applied in MOVE21 in order to support the project in reaching its intended impact. This deliverable is a starting point, and the approach applied in the project will continue to evolve and develop throughout the project lifetime.

The main audience for this deliverable is MOVE21 Executive Board (consisting of all WP Leaders and the Project Coordinator), and the Living Labs Project Managers (Gothenburg, Hamburg, and Oslo). All MOVE21 partners are encouraged to take part of the contents of this deliverable as the Innovation Management process described will be used to build sustained innovation capability in and during the project in order to facilitate sustaining the MOVE21 outcomes and results after the project.

An innovation is defined (ISO56000:2020, 2020) as “*A new or changed entity, realizing or redistributing value.*” The value can be financial, or non-financial, e.g. time, happiness, etc. The entity can be a product, service, process, business model, etc.

The purpose of innovation management is to build sustained innovation capability. In practice, that means to facilitate and support a sound project climate, structures, and ways of working that foster ideation, development and launch of entities that become innovations when they realise value for someone (person, organisation, etc.). To do so, the MOVE21 Innovation Management approach is based on the innovation management principles of ISO56000:2020. These principles are:

1. Value realisation
2. Future focused leaders
3. Strategic direction
4. Culture
5. Exploiting insights
6. Managing uncertainty
7. Adaptability
8. Systems approach

Taking inspiration from the Innovation Management Standard (ISO56000:2020, 2020) to develop the innovation management approach in an EU project is believed to be uncharted territory. The intention of the standard is to be useful and applicable in all types of organisations, both line and project ones. The task of the Innovation Management function in MOVE21 is to provide the project with a holistic picture, and then support the project in focusing on the those parts that will help to achieve the MOVE21 expected impacts and specific objectives. Thus also in this aspect, MOVE21 is breaking new ground, developing and testing something new.

MOVE21's Innovation Vision is suggested to be the same as the project's main objective: ‘...to transform European cities and functional urban areas into climate neutral and connected multimodal urban nodes for smart and clean mobility logistics.’

However, the Innovation Management Vision focuses on building sustained innovation capability, in order for the project to achieve its innovation vision. Thus, a proposal for the **MOVE21 Innovation Management Vision** is: *In MOVE21, we as leaders, will adopt and adapt the Innovation Management*

Principles as needed and in the best way to build sustained innovation capability to achieve the project's main objective and expected impacts.

To reach the Innovation Management Vision, the proposed **MOVE21 Innovation Management Strategy** is to develop and improve innovation capability for sustained use after the project end, by regular review of the innovation management principles to support the project as a whole in realising its expected impacts through achievement of the MOVE21 main objective.

- Key actors in carrying out the strategy are WP Leaders, LL Project Managers, and the Project Coordinator, supported by the Innovation Management function (WT1.3).
- Key elements in implementing the strategy are self-assessments, dialogues, workshops, and seminars to share or deep dive into a specific issue, topic, or idea for improvement.

All WP Leaders, LL Project Managers, and the Project Coordinator are expected to fill in the Self-Assessment based on their overall view of the MOVE21 project and take appropriate action. Parts of it will be collected for summary and input to upcoming quarterly activities where identified key areas and improvement actions will be reviewed, discussed, and progress followed up.

The project's Innovation Management Process is proposed to consist of five steps in order to introduce, develop, improve, and sustain innovation capability in the project:

1. **May-Oct 2021:** Introduction to innovation capability, innovation management, and the innovation management principles using seminars and workshops.
2. **Nov 2021-Nov 2022:** Laying the foundation for our MOVE21 innovation capability using self-assessment, dialogues, workshops, and seminars as means.
3. **Dec 2022-Nov 2023:** Develop and improve our MOVE21 innovation capability using self-assessment, dialogues, workshops, and seminars as means.
4. **Dec 2023-Nov 2024:** Preparing for sustained innovation capability after MOVE21 using self-assessment, dialogues, workshops, and seminars as means.
 - While each partner is responsible for transfer of MOVE21 project results to their respective line organisation, the proposal is to focus on Living Labs (joint activity with WP6, WP7, and LLs) in order to facilitate sustained innovation capability in LLs after the MOVE21 project ends.
5. **Dec 2024-onwards:** Reaping the benefits of our MOVE21 innovation capability through the end and onwards after the project lifetime.
 - Partners are expected to take own responsibility to transfer MOVE21 project results to their respective line organisation.

The MOVE21 Innovation Management Process is based on the quarterly 'Review project innovation progress' activity (D1.1 Project Handbook, 2021). Each activity will be further detailed as the project progresses. An initial expectation is that each quarterly review will be approx. 1.5-2hrs, as a digital or on-line activity, with homework in-between, and an expectation on the Project Coordinator, WP Leaders, and LL Project Managers, to implement activities as needed as a way of working towards the overall goal of innovation management, i.e. to achieve sustained innovation capability that will last after the MOVE21 project has come to an end. However, the process and the proposed quarterly activities will be continuously reviewed to ensure the most value is provided within the allocated resources and budget frame.

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1 List of abbreviations and acronyms

Acronym	Meaning
DoA	Description of Action, Annex to Grant Agreement
IM	Innovation Management
IMP	Innovation Management Principles
IMS	Innovation Management System
ISO	International Organization for Standardization
LL	Living Lab
OECD	Organisation for Economic Co-operation and Development
RC	Replication City
SA	Self-Assessment
TBD	To Be Decided
WP	Work Package



2 Purpose of the deliverable

2.1 Purpose of the deliverable

The purpose of deliverable D1.2 is to present the overall innovation management approach to be applied in MOVE21 in order to support the project in reaching its intended impact. This deliverable is a starting point, and the approach applied in the project will continue to evolve and develop throughout the project lifetime.

2.2 Development of the deliverable

While the work to develop the contents of the deliverable has been led by RISE, key aspects have been included or modified based on the seminar, workshop, and discussions held with MOVE21 Executive Board as a group and the Project Coordinator.

2.3 Attainment of the objectives and explanation of deviations

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

2.4 Intended audience

This deliverable is public; however, the main audience is MOVE21 Executive Board (consisting of all WP Leaders and the Project Coordinator), and the Living Labs Project Managers (Gothenburg, Hamburg, and Oslo).

All MOVE21 partners are encouraged to take part of the contents of this deliverable as the Innovation Management process described will be used to build sustained innovation capability in and during the project in order to facilitate sustaining the MOVE21 outcomes and results after the project.



3 Definitions in Innovation Management

This chapter introduces some definitions related to innovation (ISO56000:2020, 2020) and key differences relevant for MOVE21 innovation management, between the ISO standard and the OECD Oslo manual for innovation.

3.1 Definition of Innovation

Definition of [an] **INNOVATION** (ISO56000:2020, 2020): “A new or changed entity, realizing or redistributing value.” As such, it can be:

- “Something new, changed, or different that realises value. Please note: (1) Novelty and value are relative and determined by the perception of the organization and relevant interested parties; (2) Innovation is an outcome.”
- “Financial and/or non-financial value”
- “Product, service, process, method, business model, organisational structure, etc.”

What is innovation?

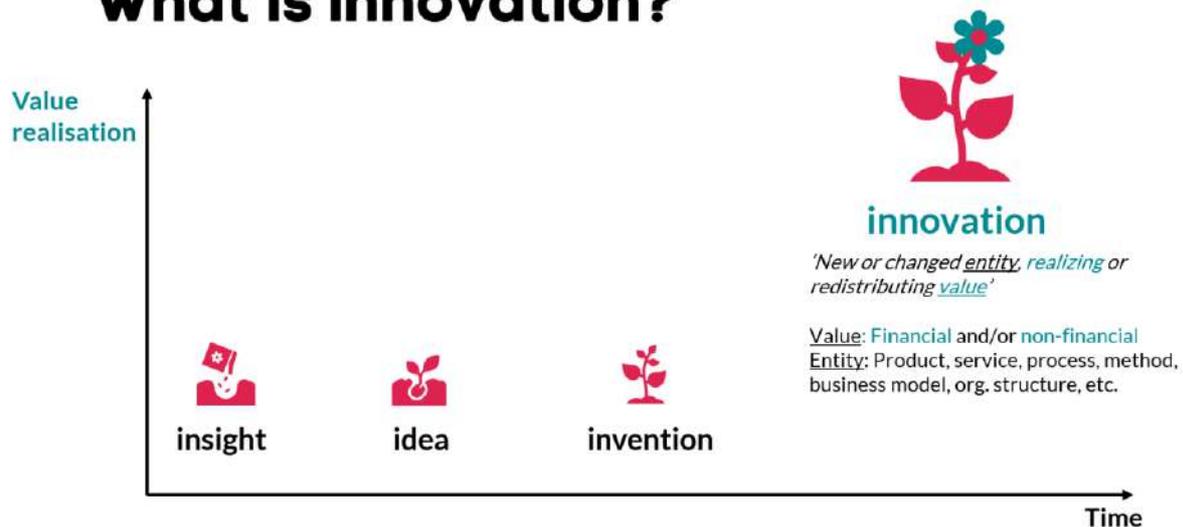


Figure 1 Examples of closely related terms and the steps that usually precedes an innovation (Ohnell and Lagerholm, 2021).

Based on the terms included in Figure 1 above:

- An **INNOVATION** makes life/work/etc. better for someone, realising value when being used, e.g. saving time, cost, frustration for, or bringing happiness to, its user compared to when not using it. This means that the one who decides whether something is an innovation or not is the user, NOT the producer. Think of it as *'innovation is in the eye of the beholder'*.
- An **INSIGHT** is a conscious awareness that something could be done differently, e.g. a need that is not fulfilled, or a process or procedure that is often misunderstood or unnecessarily time-consuming to use.
- An **IDEA** is an embryo to do things differently, to improve a process, a solution, etc.
- After development, testing, and verification the idea may be turned into an **INVENTION**. This is something that has been confirmed to 'work' in the way intended. Some inventions can be protected by IPR such as a patent. However, an invention does not say anything about the value it brings to its user.

3.2 Purpose of Innovation Management

Innovation management is a way to increase an organisation's 'luck', meaning that it is a way to work systematically in order create the right conditions to plant seeds, nurture them into small plans so that some of them may blossom as large plants, see Figure 1 above. Some might call this 'luck' but

there's much more to it than that – it requires a lot of hard work. As Ingemar Stenmark said 'Luck is a strange thing, the more I train, the luckier I get'.

Thus, the purpose of innovation management is to build a sustained innovation capability¹, see Figure 2 below. In practice, that means to facilitate and support a sound project climate, structures, and ways of working that foster ideation, development, and launch of entities that become innovations when they realise value for someone (person, organisation, etc.).

Target: Sustainable Innovation Capability



Figure 2. Building sustained innovation capability based on the innovation management standards (Lagerholm, 2015)

Using ISO56000:2020 (2020) and ISO56002:2020 (2020) as a base is a way to secure that no important aspects are overlooked, making a conscious decision about what to include, and what not to include, based on what is relevant to the organisation or project, its operating context, etc.

As a foundation for innovation capability, are the Innovation Management System elements and the eight Innovation Management Principles, see Chapter 4.

3.3 Comments with regards to the OECD manual

In developing ISO56000:2020 (2020), the ISO work group had regular contact with a number of other organisations, including OECD. Our (WT1.3 Innovation Management function) understanding is that the OECD manual and the ISO5600x families are rather similar at this point. However, some important differences related to innovation management, with impact on IM in MOVE21, are:

- The OECD definition of an innovation differs from that of ISO56000:2020 (2020) inasmuch that the former defines an innovation as something that has been made available, regardless of whether it is used or not, or whether it provides any value to its user or not. Whereas the latter emphasises that it does not become an innovation unless it realises value for someone.

¹ One interpretation is that capability is something that is incorporated into the DNA, e.g. the project's DNA, through development of our fellow-workers' innovation capability. In theory, that may imply that 'more innovation work' could be done with less resources, i.e. without increasing the capacity in terms of available resources such as person hours, fellow-workers, etc.

- The OECD manual focuses more on the innovation capability of countries, and statistical measurement, rather than how to build sustained innovation capability in organisations.

Given the high ambitions and impacts strived for in MOVE21, our innovation management will be based on ISO56000:2020 (2020) and ISO56002:2019 (2019), to make sure we keep the value that the project aims to realise through its impacts, as a guiding star.



4 Introduction to Innovation Management

As the rate of change is ever increasing and accelerating at an even faster pace, more and more organisations find it difficult to keep up, realising they need to increase their own pace in development and find new ways to realise value for their customers, co-workers, and stakeholders such as users, the general public, public and private organisations, shareholders, taxpayers, etc. in order to be relevant in the society today and tomorrow.

To accommodate that need, ISO started an initiative to develop a standard for innovation management. During the past 10-15 years, practitioners, experts, policy makers, and academics have joined forces to make a guiding standard that can be used as a reference for anyone looking to improve their organisation’s innovation capability.

Benefits in using a standard include: (1) Common language and terminology, (2) Establishment of a credible framework, (3) Raising the importance of innovation management activities in the organisation.

This chapter introduces the innovation management system (ISO56002:2019, 2019) and the Innovation Management Principles (ISO56000:2020, 2020).

4.1 Innovation Management System

The ISO56002:2019 (2019) is a standard for guidance, not for audit. It has been designed to be useful for any organisation, large or small, line or project organisation, regardless of its products or services. and regardless of its sector of activity. Like other management systems it is possible to select the parts that are relevant for the organisation at hand and disregard the ones that are not.

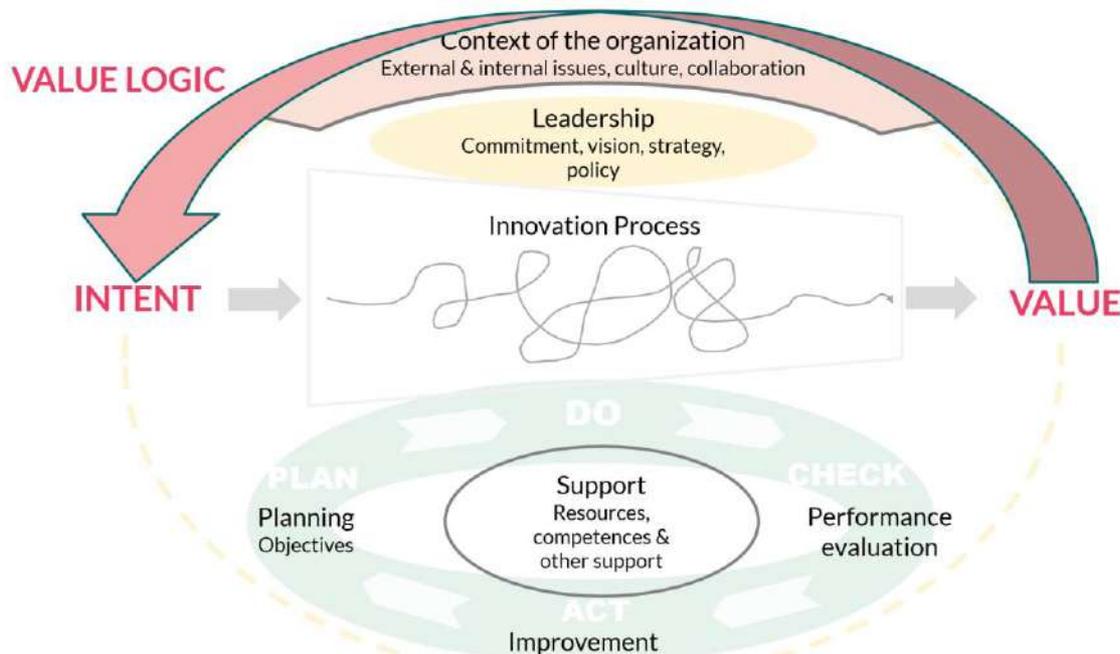


Figure 3 Innovation management system with value logic. Adapted from ISO56002:2019 (2019).

To support the organisation (be it a project or a line organisation) in developing its innovation capability, ISO56002:2019 suggests applying a systems approach, reflecting upon the relevancy of and need for the different elements in an innovation management system, shown in Figure 3 above.

The starting point for such reflection is the **VALUE**:

- What is the VALUE that the organisation / project strives to realise?

- E.g. in what way will the world / society / people / customers / users / shareholders / stakeholders be better off?
- What needs are fulfilled, leading to value in terms of e.g. higher income, reduced costs, better health, shorter time, less waste, etc.
- And for whom is the organisation / project striving to realise that value?

Based on the answer to that question, the next question to reflect upon is **INTENT**:

- Given the VALUE strived for, what is the INTENT of the organisation / project?
 - Why does it exist? What is its purpose?

The **Context of the organisation / project** has a direct impact on the VALUE it strives for, and thus also on the organisation's INTENT:

- What is the external environment of the organisation / project? Who are its stakeholders? What is the industry or market? What is the geographical scope? Is the organisation acting in the public or private domain? What is the speed or resistance to change? What trends are likely to have an impact?
- What is the internal environment within the organisation / project like?
 - Is it a public or private organisation(s), academic institution(s) or municipality/-ies?
 - What are its core competencies?
 - How does the organisation / project get things done, e.g. internal practices and processes?
 - What does the organisation / project look like? How is it set up?
 - What is the organisation's / project's culture and internal climate like, e.g. values and attitudes stressing the importance of respect, openness, and trust?
 - What is the organisation's / project's view on internal and external collaboration? How does it support such collaboration, if desired?
 - How does the organisation / project view diversity in terms of experiences, competencies and formal training, and diversity in perspectives? If desired, how is such diversity promoted?

Similarly, the organisation's / project's **Leadership** strongly influences the VALUE strived for, and thus also its INTENT. The Leadership's key responsibilities include the organisation's / project's vision, ambition, and strategic direction. To support a sustainable innovation management system, top management should demonstrate leadership and commitment by e.g. (ISO56002:2019, 2019):

- *"Being accountable for the effectiveness and efficiency of the organisation [or project] and its management systems."*
- *"Ensuring that the organisation [or project] has an innovation vision, strategy, and objectives that are consistent with the context of the organisation and its strategic direction."*
- *"Supporting leaders at all levels and other relevant management roles to demonstrate their leadership and commitment to develop their leadership regarding innovation."*

To realise the VALUE, based on the INTENT that the organisation has set for itself, the **Innovation Process**, at the core of the system, defines how the organisation / project builds insights, identifies opportunities, creates and validates concepts, and develops and deploys solutions (or services, methods, policies, etc.).

- The process is closely related to the internal environment, described above as part of 'Context of the organisation / project'.
- Experience shows that spending time on the early steps, building insights and identifying opportunities is key in developing and eventually launching something that may become an innovation when someone perceives value in using it.
- In hindsight, asking many questions, studying the need or issue at hand through multiple lenses, testing the insights or ideas early on with many and varying stakeholders (fail fast and cheap) are strategies that have proven beneficial in developing what became true innovations.

To be able to carry out the innovation process, the organisation / project needs to consider how it will **Support** all its activities relating to the innovation management system. This includes resources in terms of personnel and budget, the capabilities of internal support, what should be contracted or outsourced, internal and external collaboration, and long-term build-up of innovation capability.

And lastly, **Operations** (innovation management process) is based on Plan-Do-Check-Act to continuously review and improve the organisation with respect to its innovation activities. Measuring innovation is tricky and needs to be done with great care. That said, commonly used measurements often fall into one of the following categories according to ISO56002:2019 (2019):

- “Input-related indicators, e.g. number of ideas, number of innovation initiatives, value creation potential of ideas, new sources of knowledge, new insights, resources, and competence.”
- “Throughput-related indicators, e.g. speed of experimentation, learning and development, managers or users involved or trained, engagement level.”
- “Output-related indicators, e.g. number or ratio of ideas implemented, ease of use, speed of adoption by users, user satisfaction, intellectual property.”

4.2 Innovation Management Principles

As a basis for building sustained innovation capability, ISO56000:2020 (2020) identifies eight Innovation Management Principles (IMP), see Figure 4 below.

Innovation Management Principles

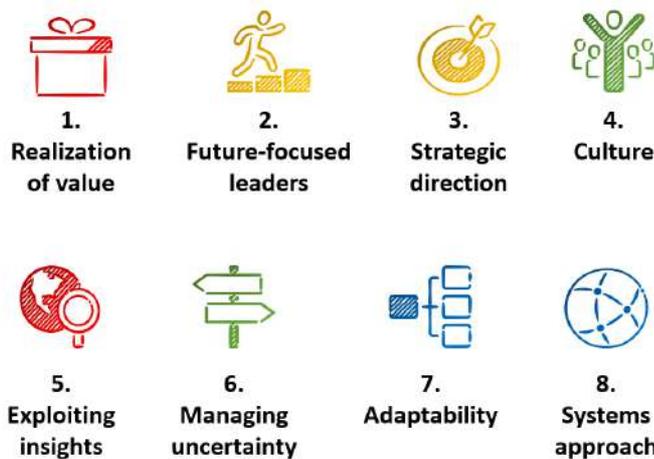


Figure 4. Innovation Management Principles (ISO56000:2020, 2020).

Each principle is described in ISO56000:2020 (2020) as written in Table 1 below.

Table 1. Innovation Management Principles as described in ISO56000:2020 (2020).

Icon	Name	Description
	1. Realization of value	Value, financial or non-financial, is realized from the deployment, adoption, and impact of new or changed solutions for interested parties.
	2. Future-focused leaders	Leaders at all levels, driven by curiosity and courage, challenge the status quo by building an inspiring vision and purpose and by continuously engaging people to achieve those aims.
	3. Strategic direction	The direction for innovation activities is based on aligned and shared objectives and a relevant ambition level, supported by the necessary people and other resources.
	4. Culture	Shared values, beliefs and behaviors, supporting openness to change, risk taking, and collaboration enable the coexistence of creativity and effective execution.
	5. Exploiting insights	A diverse range of internal and external sources are used to systematically build insightful knowledge, to exploit stated and unstated needs.
	6. Managing uncertainty	Uncertainties and risks are evaluated, leveraged and then managed, by learning from systematic experimentation and iterative processes, within a portfolio of opportunities.
	7. Adaptability	Changes in the context of the organization are addressed by timely adaption of structures, processes, competences and value realization models to maximize innovation capabilities.
	8. Systems approach	Innovation management is based on a systematic approach with interrelated and interacting elements and regular performance evaluation and improvements of the system.

5 Innovation management in MOVE21

The purpose of innovation management in MOVE21 is to increase the project's 'luck factor'. It's about building a sustained innovation capability during the project in order to generate as much value as possible (impact) so the innovations launched, and the capability that the project participants have gained will live on after the project end.

Taking inspiration from the Innovation Management Standard (ISO56000:2020, 2020 and ISO56002:2019, 2019) to develop the innovation management approach in an EU project is believed to be uncharted territory. To our knowledge no one has applied the standard in a project organisation before in the way we aim to do here, at least there appear to very little to none written about this. That said, the intention of the standard is to be useful and applicable in all types of organisations, both line and project.

The task of the Innovation Management function in MOVE21 is to provide the project with a holistic picture, and then support the project in focusing on the those parts that will help to achieve the MOVE21 expected impacts and specific objectives. As always when being the forerunner, the perks can be extra attention and interest from others, which can translate into extra help from outside the project. The downside can be that we do not know what route will be 'fastest or best', instead we will test and try, learning from our mistakes along the way. Thus also in this aspect, MOVE21 is breaking new ground, developing and testing something new. This will also contribute to further knowledge development regarding managing innovation to address complex societal challenges.

The intention in doing so is to establish a common understanding of what increases a project's 'luck factor', to facilitate our MOVE21 dialogues and collaboration by having a common language / terminology, and to raise the importance of innovation management activities. As MOVE21 produces output, results that may or may not be innovations according to the definition in the previous chapter, these results become the focus of WP9, rather than WP1, as shown in Figure 5. Innovation Management vs Exploitation Management (Ohnell, 2021).Figure 5 below.

Innovation Management vs. Exploitation Management



Innovation management (WT1.3):

- Systematic way to increase 'the luck factor'
- How to work and act *during the project* to generate as many innovations as possible.
- Mainly involving WP leaders

Exploitation management (WP9):

- Maximize 'the bang for the buck':
- Creating the best possible foundation for the project's innovations to be used in the world *after the project*.
- Involving all partners

Figure 5. Innovation Management vs Exploitation Management (Ohnell, 2021).

This chapter outlines (1) the roles and responsibilities of the Project Coordinator, the WP Leaders, the LL Project Managers, and the Innovation Management function (WT1.3), (2) observations and

reflections with regards to a systematic approach to innovation management in MOVE21, (3) a proposal for the Innovation Management Vision, Strategy and Process.

5.1 Roles & Responsibilities

The role of **Innovation Management Function** (WT1.3) is to *guide, facilitate, and provide an Innovation Management process* to support the Project Coordinator, WP Leaders, and LL Project Managers, in order to increase the possibilities to accomplish the innovations that are needed in order to deliver the value and impact expected from their Work Packages and Living Labs.

The role of the **Project Coordinator, WP Leaders, and LL Project Managers** is to *use and adopt the principles in a way that gives them the most value to support them in their role as leaders of the project (Project Coordinator and Work Packages (WP) Leaders) and as coordinators of activities in Living Labs and associated Task Forces (LL Project Managers)* in order to contribute to the overall MOVE21 objective (INTENT) and achieving the MOVE21 impacts (VALUE). To do so, these functions (Project Coordinator, WP Leaders, and LL Project Managers) are expected to *participate in and actively contribute to the IM process* through filling in the Self-Assessment and sharing good examples, challenges, etc. in the quarterly IM activities. **RC Project Managers** will be invited and involved as relevant and feasible.

Together as the Executive Board (MOVE21 D1.1 Project Handbook, 2021), **and LL Project Managers**, we strive for a *common view on strategic direction, value realisation, and a way of working that encourages innovation culture and climate* and a systematic way to explore and develop ideas and results that may eventually become innovations. Furthermore, *we are all responsible to use the principles to support* in sustaining these innovations, the LLs, and other project results after the MOVE21 project life span.

Each Partner is responsible for *transfer of project results to its own line organisation*. As part of WP9, some support will be given as set out in MOVE21 DoA, Part A (2021), that said, the responsibility for transfer and exploitation of project results still lies with each partner individually.

5.2 Innovation Management System

A systematic approach to innovation management facilitates and supports build-up of sustained innovation capability by ensuring relevant elements are not excluded. Applying a system's perspective, based on ISO56002:2019 (2019, see Figure 3 in Chapter 3) and the MOVE21 Work package structure (see Annex 1) suggests the following innovation management system in MOVE21:

- **VALUE:** The value that the project strives to realise or achieve are found in the projects Expected Impacts, see Figure 6 below. Examples² include:
 - Improved living conditions every day, e.g. less time spent on/in mobility, better air quality, citizens' health, public spaces, fewer accidents, in cities due to (1) reduced congestion and related emissions, (2) improved access to mobility services, (3)
 - Shorter time to market for green technologies and concepts due to improved capacity, skills, and processes in cities, as well as new knowledge on new forms of governance and collaboration.
 - Reduced need for energy that saves the environment, or can be spent on more urgent needs due to reduced energy consumption to move people and goods in cities in due to improved connectivity and multimodality allowing for higher fill rates/utilisation rates of vehicles.
 - More empowerment of citizens in cities by including them in a more relevant way, eg. Earlier and/or more, in the co-creation process to develop new city mobility solutions.
- **INTENT:** The main objective [implicitly the MOVE21 Innovation Vision] of the MOVE21 project is to transform European cities and functional urban areas into climate neutral and connected

² From MOVE21 EB workshop on project value Aug 25, 2021

multimodal urban nodes for smart and clean mobility logistics. To achieve that, a number of Specific Objectives have been identified, see Figure 7 below (MOVE21 DoA Part B, 2021).

- **Context of the organisation:** All MOVE21 partners and their different contexts, internal and external relationships, internal culture, etc. Together we define a culture for MOVE21.
- **Leadership:** MOVE21 Executive Board. It is the responsibility of the leadership to establish ways of working, culture, collaboration means, etc. in the project.
- **Innovation process:** In MOVE21 the process used by the Living Labs (WP6 and Living Lab cities) and the Replication and Take-up (WP7 and Replication Cities) make up the core of the Innovation process. To support the Living Labs and Replication Cities, WP3-5 will support in order to enable innovation, and WP8-10 will do the same in order to maximise impact and uptake.
- **Operations (Plan-Do-Check-Act):** The Innovation management process is based on a quarterly review activity including a self-assessment based on the Innovation Management Principles, in order to identify, plan and manage issues, topics, and questions to keep the project as a whole focused on the VALUE and its INTENT throughout the project time.

MOVE21 Expected Impacts

Impact 1: Projects should act as European demonstration-type ("lighthouse") examples for integrating new scalable technologies and measures into city transport operations and existing transport infrastructures at real-life scale in order to achieve long-term decarbonisation impacts
Impact 2: Reliable solutions for a more sustainable, inclusive, safe and secure mobility system, including for the secure mobility of people and freight during major/sport events
Impact 3: Clear improvements of the efficiency and accessibility of the transport networks/systems covering the TEN-T urban nodes or equivalent, and their access to the relevant TEN-T corridor(s) or equivalent transport corridors for transport of freight and/or passengers
Impact 4: Positive long term impacts on social cohesion, economic development and public perception, resulting in behavioural change and policy change
Impact 5: Projects will contribute to the development of the existing European knowledge base on the effectiveness and impacts resulting from the implementation of innovative mobility solutions
Impact 6: Clear commitments and contributions to Europe-wide take up during and beyond the project are expected, which could for example be in the form of follow-up actions funded by CEF or similar programmes

Figure 6. MOVE21 Expected Impacts: Value that the project aims to realise.



MOVE 21 Specific Objectives

- SO1: Test, deploy, replicate and upscale zero emission solutions through co-creation in urban nodes and functional urban areas on the TEN-T Scan-Med corridor
- SO2: Combine technological and non-technological innovations to facilitate effective implementation of decarbonised mobility solutions for people and goods
- SO3: Increase liveability in European cities by focusing on social cohesion, identity and transport and health equity in all mobility implementations and upscaling efforts
- SO4: Establish a platform for coordination, collaboration and data sharing for clean and efficient urban multimodal mobility on TEN-T corridor level and a self-sustaining partnership model in Living Labs
- SO5: Maximise uptake of solutions through ambitious replication, uptake and dissemination activities to secure impact in Europe and beyond

Figure 7. MOVE21 Specific Objectives.

5.3 Innovation Management Vision

The project's Innovation Vision is suggested to be the same as the project's main objective:

'...to transform European cities and functional urban areas into climate neutral and connected multimodal urban nodes for smart and clean mobility logistics.'

However, the project's Innovation Management Vision focuses on building sustained innovation capability, for the project to attain its innovation vision above. As such, a proposal for the MOVE21 Innovation Management Vision is:

In MOVE21, we as leaders, will adopt and adapt the Innovation Management Principles as relevant and in the best way to build sustained innovation capability to achieve the project's main objective and expected impacts.

5.4 Innovation Management Strategy

A strategy defines how to reach the goals that brings an organisation or in this case a project closer to its vision. To reach the Innovation Management Vision, the proposed MOVE21 Innovation Management Strategy is to develop and improve innovation capability for sustained use after the project end by regular and iterative review of the Innovation Management Principles to support the project as a whole, to realise its intended VALUE through achievement of its INTENT (MOVE21 main objective).

Key actors in carrying out the strategy are **WP Leaders, LL Project Managers, and the Project Coordinator**, supported by the Innovation Management function (WT1.3). **RC Project Managers** will be invited and involved as relevant and feasible.

Key elements in implementing the strategy are self-assessments, workshops, and seminars to share or deep dive into a specific issue, topic or question.

5.4.1 Self-assessment

To build long-term innovation capability both on the project, LL, and individual level, a self-assessment, based upon the Innovation Management Principles (IMP) in ISO56000:2020 (2020), will be used in the project. The self-assessment will be a recurring element of the innovation management

process. It will be used as a means for self-reflection, identification of potential issues and topics, and ideas for improvement may be discussed and ‘peer-assisted’ in workshops, shared as good examples in seminars. The workshops will be facilitated by the WT1.3 Innovation Management function, as needed and as possible. Towards the end, the intention is that these workshops could be ‘peer-assist’ workshops focusing on how to facilitate sustained innovation capability in LLs after the MOVE21 project ends.

The proposal is to, for each principle in the self-assessment, include:

- A short description of what the principle means, see Table 1 in Chapter 4.
- A few questions to inspire reflection
- Some more concrete questions to support your reflection in filling in the self-assessment, for example:
 - Open question: Your interpretation of what the principle means in our project context
 - Yes or no: Is this principle relevant for us
 - Yes or no: We have this in place
 - Yes or no: We need to work on this
 - Open question: Ideas for improvement or actions in your WP/LL, or the project as a whole.

To make this useful and value-adding there will be questions at the end regarding the process of filling in the self-assessment (SA), e.g. What was valuable in filling in the SA and reflection upon the principles? What could be improved? What did this spark in you? What have or will you do differently as a result of the reflections you made?

All WP Leaders, LL Project Managers, and the Project Coordinator are expected to fill in the Self-Assessment based on their overall view of the MOVE21 project and take appropriate action. Parts of it will be collected for summary and input to upcoming quarterly activities where identified key areas and improvement actions will be reviewed, discussed, and progress followed up.

5.5 Innovation Management Process

The project’s innovation management process is proposed to consist of five steps in order to introduce, develop, improve, and sustain innovation capability in the project:

1. **May-Oct 2021:** Introduction to innovation capability, innovation management, and the innovation management principles using seminars and workshops.
2. **Nov 2021-Nov 2022:** Laying the foundation for our MOVE21 innovation capability using self-assessment, dialogues, workshops, and seminars as means.
 - Based on the outcome of the self-assessment issues, questions, and areas to continue work on through workshops, deep dives, sharing seminars, etc. will be identified, with the overall purpose to secure alignment of the project’s efforts with the strategic direction as set out by the VALUE and INTENT, and assess if changes in project direction is needed.
3. **Dec 2022-Nov 2023:** Develop and improve our MOVE21 innovation capability using self-assessment, dialogues, workshops, and seminars as means.
 - Based on the outcome of the self-assessment issues, questions, and areas to continue work on through workshops, deep dives, sharing seminars, etc. will be identified, with the overall purpose to secure alignment of the project’s efforts with the strategic direction as set out by the VALUE and INTENT.
4. **Dec 2023-Nov 2024:** Preparing for sustained innovation capability after MOVE21 using self-assessment, dialogues, workshops, and seminars as means.
 - While each partner is responsible for transferring of MOVE21 project results to their respective line organisation, the proposal is to focus on Living Labs (joint activity with WP6, WP7, and LLs) in order to facilitate sustained innovation capability in LLs after the MOVE21 project ends. RCs will be invited and involved as relevant and feasible.

5. **Dec 2023-onwards:** Reaping the benefits of our MOVE21 innovation capability through the end and onwards after the project lifetime.
 - Summary and key takeaways from the Innovation Management activity in MOVE21.
 - Partners are expected to take own responsibility to transfer of MOVE21 project results to their respective line organisation.

The innovation management process is based on the quarterly 'Review project innovation progress' activity (MOVE21 D1.1 Project Handbook, 2021). The high-level process is listed in Table 2 below. Each activity will be further detailed as the project progresses. An initial expectation is that each quarterly review activity will be approx. 1.5-2 hrs, as a digital or on-line activity, with homework in-between, and an expectation on the Project Coordinator, WP Leaders, and LL Project Managers, to implement activities as needed as a way of working towards the overall goal of Innovation Management, i.e. to achieve sustained innovation capability that will last after the MOVE21 project has come to an end. However, the process and the proposed quarterly activities will be continuously reviewed to ensure the most value is provided within the allocated resources and budget frame.

Table 2. Proposed innovation management process in MOVE21

Activity	When	Objective	WHAT - Action	WHO is responsible to 'do' the action	Who is responsible to organise the action	Examples of possible PI:s
Quarterly review	Jul-21	Introduction to innovation capability and IM principles	Participate in the Introduction to Innovation Management session	- WP leaders - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Aug-21	Introduction to innovation capability and IM principles	Participate in the workshop on MOVE21 Value	- WP leaders - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Nov-21	Laying the foundation for our innovation capability using the IM principles	Fill in self-assessment (SA) - introduction version; participate in seminar on Innovation Management Principles.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of filled in SA
Quarterly review	Feb-22	Laying the foundation for our innovation capability using the IM principles	Participate in a dialogue to improve the self-assessment and related process.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	May-22	Laying the foundation for our innovation capability using the IM principles	Fill in self-assessment (SA) - more detailed version	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of filled in SA
Quarterly review	Aug-22	Laying the foundation for our innovation capability using the IM principles	Participate in a dialogue / workhop / seminar based on topics identified through the self-assessment.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Nov-22	Laying the foundation for our innovation capability using the IM principles	Participate in a dialogue / workhop / seminar based on topics identified through the self-assessment.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Feb-23	Develop and improve our innovation capability using the IM principles	Fill in Self-assessment (SA) - follow-up to previous one (May 2022)	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of filled in SA
Quarterly review	May-23	Develop and improve our innovation capability	Participate in a dialogue / workhop / seminar based on topics identified through the self-assessment.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Aug-23	Develop and improve our innovation capability	Participate in a dialogue / workhop / seminar based on topics identified through the self-assessment.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Nov-23	Develop and improve our innovation capability	Participate in a dialogue / workhop / seminar based on topics identified through the self-assessment.	- WP leaders - LL Project Managers - Project coordinator	WT1.3 Innovation management function	No of participants
Quarterly review	Feb-24	Preparing for sustained innovation capability after MOVE21	Fill in Self-assessment (SA) - follow-up to previous one, preparatory for 'peer assist'.	- WP Leaders - LL Project Managers - LL Task Force teams (TBD) - Project Coordinator	WT1.3 Innovation management function	No of filled in SA
Quarterly review	May-24	Preparing for sustained innovation capability after MOVE21	"Peer-assist" /Co-creation / deep dive how to sustain innovation capability through LLs after MOVE21	- WP Leaders - LL Project Managers - LL Task Force teams (TBD) - Project Coordinator	Innovation management function in collaboration with WP6, WP7, LLs (TBD)	No of participants
Quarterly review	Aug-24	Preparing for sustained innovation capability after MOVE21	"Peer-assist" /Co-creation / deep dive how to sustain innovation capability through LLs after MOVE21	- WP Leaders - LL Project Managers - LL Task Force teams (TBD) - Project Coordinator	Innovation management function in collaboration with WP6, WP7, LLs (TBD)	No of participants
Quarterly review	Nov-24	Preparing for sustained innovation capability after MOVE21	"Peer-assist" /Co-creation / deep dive how to sustain innovation capability through LLs after MOVE21	- WP Leaders - LL Project Managers - LL Task Force teams (TBD) - Project Coordinator	Innovation management function in collaboration with WP6, WP7, LLs (TBD)	No of participants
Quarterly review	Feb-25	Reaping the benefits of our innovation capability through the end and onwards after MOVE21 project life time.	Homework: Fill in Self-assessment (SA) - follow-up to previous one. Final meeting: Summary and closing the IM activity.	- WP Leaders - LL Project Managers - Project Coordinator	WT1.3 Innovation management function	No of participants

6 References

1. ISO56000:2020 (2020). Innovation management - Fundamentals and vocabulary. ISO.
2. ISO56002:2019 (2019). Innovation management - Innovation management system – Guidance. ISO
3. Lagerholm, B. (2015). F4 methodology @ RISE, developed and applied in various projects.
4. MOVE21 (2021). Description of Action Part A. Project number 953939
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6. MOVE21 (2021). D1.1 Project handbook.
7. Ohnell, S. (2021). WT1.3 and WP9 presentation at MOVE21 Kick-off meeting June 28th. Online.
8. Ohnell, S. and Lagerholm, B. (2021). MOVE21 Introduction to innovation seminar Jul 2nd. Online.

Annex 1: MOVE21 Work Package structure

The MOVE21 work package structure (MOVE21 D1.1 Project handbook, 2021)

