SUNRISE

Sustainable Urban Neighbourhoods Research and Implementation Support in Europe

D2.2 Mobility Labs in Practice

Implementing Neighbourhood Mobility Labs

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1 Executive Summary

The handbook for Mobility Labs in Practice presents guidelines on how to implement and operate a Living Lab, more specifically a Neighbourhood Mobility Lab (NML), in SUNRISE. Mobility Labs as a special form of Living Labs, are tools for the stimulation of technological and social innovations in local mobility issues in a co-creative environment by involving users and stakeholders from city administration, politics, local economy, public service providers and social organisations. SUNRISE's project structure is closely aligned with the conceptual structure of Living Labs, and this handbook provides guidelines on how to properly translate between the SUNRISE project structure and the Living Lab concept. SUNRISE's workpackages cover all conceptual steps of a Living Lab/ Mobility Lab, from input over transformation, and output and outcome, to the implementation. Evaluation presents an important activity in the Living Lab/ Mobility Lab concept and is covered by SUNRISE.
The Mobility Labs in Practice- handbook contains guidelines for responsibilities of the SUNRISE project partners and the internal organisation as well as good practice examples.

2 Introduction

Since a couple of years Living Labs are part of instrumental tools of the political programming of research funding throughout Europe. Based on initiatives of the EU-research policies Living Labs are seen as innovative instruments for the stimulation of technological and social innovations in the framework of 'soft policy making'. Living labs are one of the instruments of the "Open Method of Coordination- model", based on the idea of "open innovation" (cf. Chesbrough 2003) applied in the field of various socio-technical fields. Among these, urban planning and especially urban mobility is one field of action that makes increasing use of the concept of Living Labs. For SUNRISE with its focus on sustainable urban mobility solutions on the neighbourhood level, Living Labs are thus a core concept of co-creation.
The concept of Living Labs is found in the overall project structure of SUNRISE: from the input phase to the transformation and output & outcome phase towards the implementation (including evaluation), the SUNRISE project structure follows the idea of a Living Lab. In other words, SUNRISE is a Living Lab.
This handbook on "Mobility Labs in Practice" is a conceptual foundation of the SUNRISE project and combines key conceptual claims of Living Labs with the project structure. In addition, recommendations for the implementation and operation of a Living Lab are compiled in this handbook for application within the SUNRISE project structure.
Beginning with general definitions of Living Labs, the handbook moves on to align the SUNRISE project with the Living Lab concept. Recommendations for the implementation phase including clear responsibilities of the SUNRISE project partners guide to the operational phase of the Living Lab SUNRISE form the core of this handbook. Important interlinkages to other documents produced within SUNRISE are included, especially regarding the evaluation and monitoring activities required for the operation of the SUNRISE Living Lab.

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3 Mobility Labs – Definition

Mobility Labs are a specific form of 'Living Labs', thus before elaborating the definition of mobility labs this chapter is dedicated to explain the concept of 'Living Labs'. These concepts are closely related and share many important features and are today widely applied in urban planning projects throughout Europe.

3.1 Living Lab as Basis for Mobility Labs

3.1.1 Key Characteristics of a Living Lab

The **concept of ‚Living Lab'** was developed at the beginning of the 2000s. Following Bergvall-Kåreborn et al. (2009: 1) a living lab is:

> *"… a gathering of public-private partnerships in which businesses, researchers, authorities, and citizens work together for the creation, validation, and test of new services, business ideas, markets, and technologies in real-life contexts. The purpose of a Living Lab is to create a shared arena in which digital services, processes, and new ways of working can be developed and tested with user representatives and researchers. Hence, a Living Lab is an environment in which people and technology are gathered and in which the everyday context and user needs stimulate and challenge both research and development, since authorities and citizens take active part in the innovation process.*

After Niitamo et al. (2006: 350) the concept of Living Labs is based on methods, by which innovations of services, products or new concepts of practise ca be co-created and evaluated in 'real environments' for and with citizens. Living Labs aim to involve a broad sample of consumers in the co-development of products and prototypes before the rolling out in consumer markets. Following the definitions, a Living Lab is a citizen-based research and development effort aiming to co-develop, test and evaluate within open, collaborative, and context-dependent everyday situations for innovations originally in the field of ICT (information and communication technology). Living Labs are based on the methodologic context of ‚open innovation' (cf. Chesbrough 2003, Chesbrough & Appleyard 2007), ‚crowdsourcing' (cf. Drews 2009) and ‚involving lead users' (cf. von Hippel 2005, von Hippel & Katz 2002).

As result of the ten years experience with the Malmö Living Lab Björgvinsson et al. (2012: 140-141) underpin that it is necessary:

> *„to move from the dominant technocratic and market-oriented view of innovation towards judging the value of innovation as future making by the degree to which it opens up for constructive and sustainable questions and possibilities, within a specific geographically and historically located situation."*

The concept of living labs is based on a systematic trans-disciplinary attempt to integrate ideas and suggestions of consumers in research and innovation processes. Results originate in co-experimentation and co-evaluation of innovative ideas, scenarios, concepts and resulting technological artefacts in concrete challenges. Thus, a living lab is a test environment in ‚real

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life', where different actors are co-developing creative social innovations within a new form of public-private-people partnership ("pppp") (user driven open innovation) (see EC 2009). Figure 1 shows the common elements of Living Labs, in which co-creation is one of the core features.

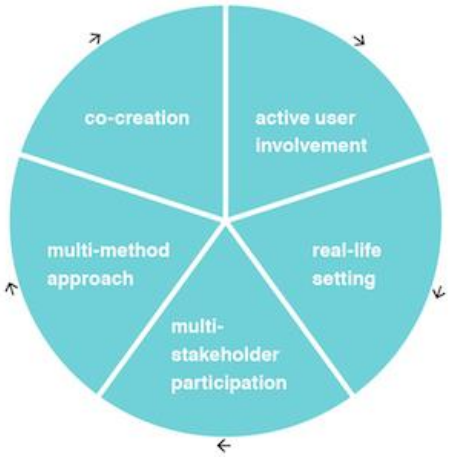

Figure 1: Common Elements of a Living Lab (from http://www.openlivinglabs.eu/node/1429)

Living labs have the following key characteristics:

- **Geographical embeddedness**: living labs are placed in a geographical area (e.g. a neighbourhood) as opposed to virtual platforms
- **Experimentation and Learning**: living labs test visibly new technologies, solutions and policies in 'real world' conditions
- **Participation and user involvement**: co-creation and engagement of stakeholders and residents in all stages of the living lab is key (see as well D2.1 "Handbook for Participation Strategies" for more info methods for participation and user involvement)
- **Leadership and ownership**: clear distribution of leadership is helpful for a successful living lab
- **Evaluation of actions and impact**: Evaluation allows for learning processes in the living lab and beyond (see M41 "Draft Assessment and Evaluation Plan" and D4.1 "Assessment and Evaluation Plan", plus the Neighbourhood Learning Retreats)

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3.1.2 Operating Principles of a Living Lab

These key characteristics have implications on the way a living lab has to be operated. The European Network of Living Labs[1] defines five main principles of Living Lab operations: Continuity, Openness, Realism, Empowerment of users and Spontaneity (CORES) that are essential for operating a Living Lab:

- **Continuity** – Creativity is strengthened by a multitude of views originating from broad experience and cross-border collaboration. Experiences are gained and views are broadened over time. Good cross-border collaboration is built on trust. Building trust between people from different backgrounds and work/life cultures takes time. Business opportunities can only be finally validated through real market experiments. Capability to plan and run such experiments is built on practical experience, carried out by people working continuously in the Living Lab environment. Users and partners build trust and unique knowledge over a series of activities, innovation cases and business experiments.
- **Openness** – The innovation processes must be as open as possible. This is essential for gathering many perspectives and to bring enough power to achieve rapid progress. Further, since innovation is about new ways of generating values for its users/customers, it is inherently difficult to foresee all potential affected users. There are numerous examples where a particular concept with a particular anticipated usage was developed only to learn that the strongest reception was from unanticipated users for an unexpected type of usage.
- **Realism** – Realistic behaviour of users and stakeholders is necessary to generate results which are valid for real (realistic) applications. A Living Lab must be experienced by its users and stake-holders as a "natural environment" – today or in the near future. The focus on innovation in real-life/work environment is also key factor which differentiates Living Labs from many other types of open environments for co-creation (such as Google Earth, Second Life etc.).
- **Empowerment of users** – The engagement of users is fundamental in order to guide the innovation process based on user needs and desires. It is important not to use participants as 'guinea pigs' for testing. Living Labs efficiency is based on the creative power of significant user communities and the most important enabler of user power is empowerment and motivation to engage – not only in one project or case but in continuity over time. Experience shows that users having wide experience from various innovation processes are the most effective innovators.
- **Spontaneity** – In order to succeed with new products and services, more than better professional/serious functionality has to be offered, but especially new and inspiring ways of usage that meet personal desires and contribute to social and societal needs. This allows for innovations to meet the complexity of needs and desires. It is not enough to explore and address users early outspoken needs in an initially context, assumed to be the most important. It is also very important to have the ability to detect, aggregate and analyse spontaneous user's reactions

[1] See http://www.openlivinglabs.eu/node/1429 for more information

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Living Labs generally deal with 5 thematic fields; all of these are directly relevant to SUNRISE:

- **Community/ local sustainability**: focussing on the integration of a diverse range of stakeholders including residents in research and innovation action
- **ICT**: focussing on technical innovation in energy, buildings and mobility
- **Mobility and Energy**: focus on sustainable transport, e-mobility and energy
- **Social interaction/ integration**: focussing on community building
- **Spatial or area development**: focus on urban renewal or revitalizing buildings/ sites

SUNRISE's aims and goals are located in all of these fields, therefore a Living Lab approach is of high value for all activities in SUNRISE.

3.1.3 What is a ‚Learning Lab'?

Contrary to Living Labs Learning Labs centre on a stepwise and consistent learning of all actors. This stepwise learning process is based on the willingness of involved actors to adapt to new conditions and contexts. A Learning Lab is based on a communication network, which ensures that the main interest groups are involved in an equivalent and equitable way and supported professionally in mutual learning processes ('empowerment' of actors). The co-creation of such an activating research context is important for identifying and co-developing effective, reliable and socially accepted measures to impact the behaviour to more sustainable practises.

Within these innovative forms of arranging of knowledge and/or pro-active learning processes synchronic and a-synchronic forms of communication of face-to-face processes and online-communication are used (‚blended learning').

Methods for Learning Labs stem from different fields of activation and participation practise (urban renewal, Local Agenda 21, city marketing, health education, nutrition consultation, mediation etc.). Further processes for activation and participation have been developed for e-governance (cf. Barry 2001). Based on new technologies it is possible to implement more efficient and effective networks to integrate heterogeneous cultures (cf. Prahalad & Maharajapurem 2008). One good example is the Malmö Living Lab, where different peer-to-peer communication and production networks and collaborative services of neighbourhoods are integrated in a ‚factory' (Björgvinsson et al. 2012: 132).

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3.2 Definition of Neighbourhood Mobility Labs

A Mobility Lab (ML) and/or Neighbourhood Mobility Lab (NML) is a specific type of a Living Lab, aiming to develop new solutions in the transport and mobility sectors. Innovations might be strategic (transport and mobility planning) or related to physical planning (urban design and architecture of transport infrastructure and re-designing of public space) or dealing with mobility behaviour of specific social groups.

Particularly the field of mobility behaviour often is dominated by routines regarding means of transport and mobility patterns, both influenced by the mind-sets of actors and by existing infrastructures and its accessibility. Changing mobility behaviour requires stepwise learning processes. Therefore, Mobility Labs always needs to use as well elements of Learning Labs.

Openlivinglabs.eu[2] describes Mobility Labs as follows: "Empowering citizens to use different mobility solutions and integrate citizens into the innovation process, motivating them to participate, putting the right tools in place to enable a bottom-up dialogue, and translating ideas into sustainable products or services".

Main focus areas of the Mobility Labs are:

- Develop physical infrastructure and adequate services necessary to help citizens in the region switch from private to public transport, walking or cycling
- Validation of shared mobility solutions
- Integration and interoperability of different mobility related service,
- Practical cross-border applications in the whole of Europe.

These focus areas are largely fulfilled by the SUNRISE project.

[2] See http://www.openlivinglabs.eu/node/1429 for more information.

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3.3 Role of Mobility Labs for Innovation and Learning

Living Labs frame innovation in cities as a process of reiterative knowledge production and application (Evans & Karvonen 2014). Labs in general are representatives of the discussions about 'open innovation', 'crowdsourcing' of ideas and the involvement of users in the development of sustainable solutions to urban issues, such as mobility. Closely related to 'citizen science', labs are innovative management tools to develop (social) innovations. The emphasis on social innovations is especially meaningful in SUNRISE, as much of the mobility structure interlinks with behaviour and routines of users calling as well for social solutions and learning processes.

Living labs frame innovation in cities as processes of circular knowledge production and subsequent application. Data is generated, analysed and transformed into policy with participation of a wide range of stakeholders.

3.4 Mobility Labs in EU-Projects

Mobility labs as a specific form of living labs represent a strong strand of projects under EU-funding schemes (e.g. Horizon 2020, or JPI Urban Europe), especially in the field of Smart City, sustainable development and urban mobility, both of persons and goods (logistics) (see Joss 2009). The number of labs in these three fields is steadily growing, opening possibilities for attractive governance structures involving a wide range of actors.

Section 6.1 presents a small collection of urban living labs as reference and best-practice examples for SUNRISE.

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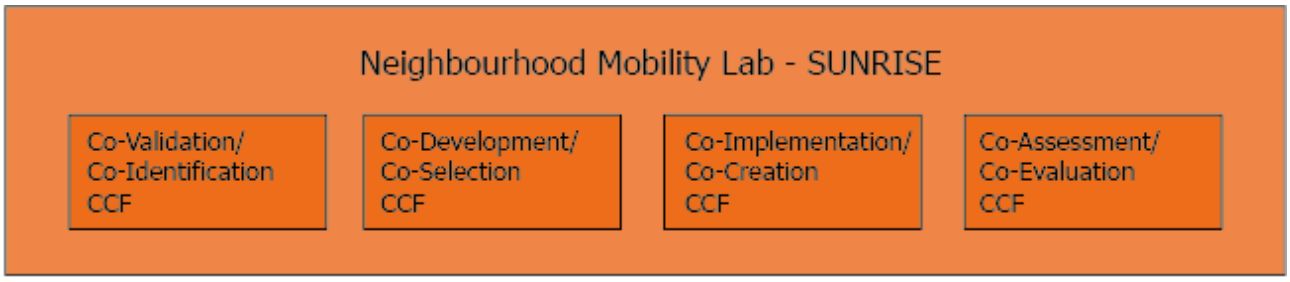
4 Purpose of Neighbourhood Mobility Labs in SUNRISE

In SUNRISE, the neighbourhood mobility labs (NML) are the frame and superstructure for the co-creation process. In each neighbourhood, the mobility lab covers all activities from the co-validation & co-identification to the co-development & co-selection to the co-implementation &co-creation to the co-assessment & co-evaluation. To acknowledge the thematic differences of these activities, the NML in SUNRISE has sub-sections according to the actions in each work package (see Figure 2). These sub-sections of the NML are the Co-Creation Forums (CCF)[3]: from the co-validation/co-identification CCF to the co-assessment/co-evaluation CCF. The distinction of CCF and NML stems from the fact that mobility labs refer not only to a specific organisational structure, but to a bundle of activities which are co-designed in the lab and co-implemented by the lab organisation in the form of CCFs. SUNRISE's Core Group is the steering group of the NML, and consists both of partners from the SUNRISE consortium and of other relevant stakeholders from the action neighbourhoods.

Figure 2: Neighbourhood Mobility Lab and CCFs in SUNRISE



The NML is in charge of the organisation of all SUNRISE activities, including co-learning through learning processes both in the Neighbourhood Learning Retreats distributed over the duration of SUNRISE and through continuous participation in the NML- activities.

Implementing a NML in each of the SUNRISE neighbourhoods caters for coherent structures and organisation over all city partners and facilitates cross-city exchange of lessons learnt, while retaining flexibility to adapt to local characteristics. The NML is a strategic local alliance that includes all relevant stakeholders and interested citizens, and is the organisation steering the co-creation process in SUNRISE.

[3] A Co-Creation Forum is a public participation event in the course of SUNRISE, in which users and stakeholder co-identify mobility issues, co-design solutions, co-design the implementation process and co-evaluate the process.

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An NML consists of several phases of operation (Figure 3): input, transformation & output and outcome, and implementation.

Figure 3: Phases of a NML in SUNRISE

Input	Transformation			Output & Outcome	Implemen-tation
	develop	experiment	design		
collecting data & information, first analysis & results, activation, coordination, concept for ‚action planning'	connect, start learning process, motivate	group discussions, fora, planning workshops, communication platforms	documentation of results, develop measures, feedback on results by participants	Operating model, feedback on operating model by participants, decision making (objectives, processes), (change of) behaviour	decision on strategy, implement measures, implement project

Each phase of NMLs correspond to the activities in a specific SUNRISE work package. The following list contains a more detailed description of the phases of the NML in relation to the work packages:

- WP1 (Input): activation (first CCF meeting), collecting data and first analysis & results (SWOT activities), concept for action planning (corridor of action, neighbourhood mobility check, …)

Figure 4: WP1 Activities in the NML Scheme

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- WP2 (Transformation, Output & Outcome): combines two steps of an NML
  - experimentation, co-development and co-design of mobility measures with participatory methods
  - outcome is the Neighbourhood Mobility Action Plan and the local Participation Strategy

Figure 5: WP2 Activities in the NML Scheme

Transformation			Output & Outcome
develop	experiment	design	
connect, start learning process, motivate	group discussions, fora, planning workshops, communication platforms	documentation of results, develop measures, feedback on results by participants	Operating model, feedback on operating model by participants, decision making (objectives, processes), (change of) behaviour

- WP3 (co-implementation): decides on an implementation strategy and applies the mobility measures in each action neighbourhood cooperatively and produces guidelines for Sustainable Neighbourhood Mobility Planning

Figure 6: WP3 Activities in the NML Scheme

Implemen-tation
decision on strategy, implement measures, implement project

- WP4 (co-assessment & evaluation): stretches over all phases and refers to all learning processes through evaluation and assessment activities which are steered by the Core

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Group of the NML; the NML will execute the evaluation and assessment activities as planned by the Technical Service Partners (TSP)

Between the activities of the WPs/ the activities of the NML feedback loops exist that ensure constant co-learning processes as well as continuity in the content and activities.

A complete overview of the NML scheme in relation to the WP- structure and the feedback loops is depicted in Figure 7.

Figure 7: Interrelations of NML, the WPs and Internal Feedback Loops

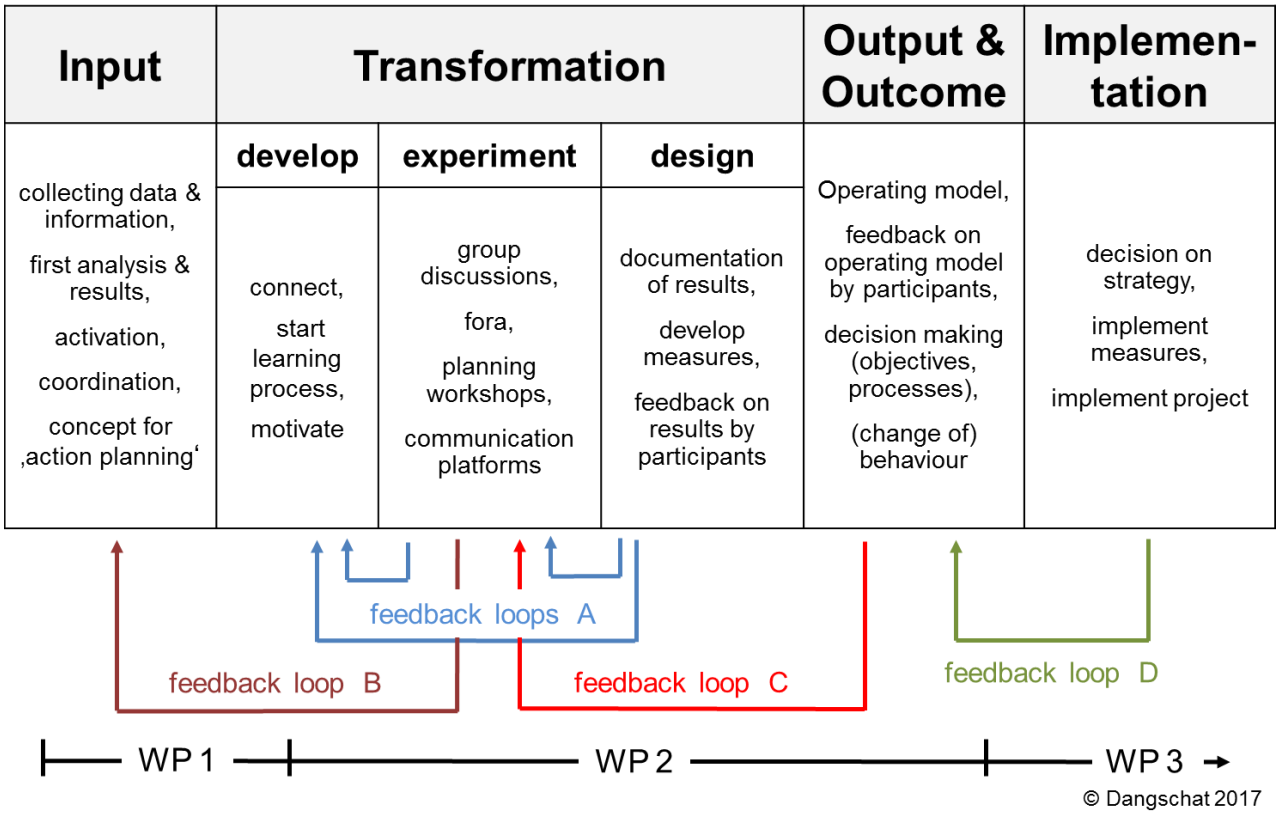

Figure 7 now shows the complete scheme of the Neighbourhood Mobility Lab in SUNRISE in relation to the work packages. The activities that are outlined in the sections "Input", "Transformation", "Output & Outcome" and "Implementation" reflect the tasks described in the SUNRISE co-creation process. Co-assessment and co-evaluation activities are continuous over the duration of the NML and thus not allocated to a specific section in the above NML-scheme. To ensure continuity between the sections/ work packages, feedback loops allow for adaptations within the activities.

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5 How to Implement a Neighbourhood Mobility Lab in SUNRISE Neighbourhoods?[4]

5.1 The Beginnings of a Lab

In setting up a mobility lab, the following aspects are of importance to structure and adapt the lab to the local conditions:

- **Goals**: Any lab needs a goal, i.e. a shared vision of the future (for short and middle range). In the case of SUNRISE, the overarching goal is to promote sustainable forms of urban mobility for residents in specific neighbourhoods. Each city has a number of sub-goals depending on the local context that are developed in the co-identification & co-validation phase of SUNRISE.
- **Background information**: The population, the businesses and the important actors in the neighbourhood need to be characterized including demographics (or broadly statistics), local interests, potential conflict areas (covered through the SWOT & status-quo-descriptions in the SUNRISE project)
- **Stakeholder**: Decide what stakeholders need to be included actively, and what stakeholders can have a more passive role in the lab (covered through the activities in the co-identification & co-validation and the co-development & co-selection phase in SUNRISE)
- **Outreach**: Devise a strategy to reach and involve the stakeholders (covered through the activities in the co-identification & co-validation and the co-development & co-selection phase in SUNRISE; additional support through co-learning & uptake phase)
- **Goal of Participation**: Why should local actors participate in the lab? This is covered through the deliverable "Participation Strategy" (D2.1) in the co-development and the co-selection phase, and the "Memorandum of Understanding" (M33)
- **Motivation**: How can the relevant actors be motivated to join and support the lab?
- **Impact**: What impact on the neighbourhood can local actors expect in the neighbourhood?

Once these questions are settled, and the relevant strategies on outreach (participation) are defined, the operation of the lab can start.

[4] Elaborations in this chapter are partly based on McCormick, K & C. Hartmann (eds. no date): The Emerging Landscape of Urban Living Labs. Characteristics, Practices and Examples. GUST/ Urban Europe. URL: http://lup.lub.lu.se/search/ws/files/27224276/Urban_Living_Labs_Handbook.pdf

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5.2 Definitions of Functions and Roles within the SUNRISE Consortium

For the operational phase, the lab needs a set of functions and roles to be effective. The following recommendations refer specifically to labs in SUNRISE.

5.2.1 City/ Neighbourhood Partners

SUNRISE's city/neighbourhood partners may take different roles in relation to the lab:

- **Promoter**: the city initiates, finances and implements a Mobility Lab, or plays a leading role in the design and development of a Mobility Lab
- **Enabler**: the city has an interest in facilitating a Mobility Lab by opening up opportunities for collaboration and creating supportive conditions
- **Partner**: the city engages in a Mobility Lab as an equal partner with other stakeholders, shares leadership and actively participates as a stakeholder in the Lab. The city's role needs to be clearly defined and adhered to (e.g. as a partner with in a specific field such as e-mobility, transport, housing, public space development etc.)

As each of SUNRISE's partner cities have a distinct interest regarding the development in the action neighbourhoods, the role of a "Partner" might be most suitable (see list above). This allows the city partners to play an active and clearly defined role in the Lab activities while pursuing its interest in the neighbourhood development. For city partners it is necessary to be clear about the goals of engagement in the SUNRISE project, which directly defines their interest.
However, if "Promoter" or "Enabler" is more applicable for achieving the city/neighbourhood partners' goals, these roles may be chosen as well. In relation to the Mobility Lab, both the "Promoter" as well as the "Enabler" indicates less direct involvement in the co-creation process for the city/neighbourhood partners.

5.2.2 Core Group

The Core Group that has been established in the course of WP1 City Kick-off acts as the steering group of the NML. It is the decision-making body that oversees all activities that are implemented in the SUNRISE project (from activation in WP1 to participation strategy development and drafting the Neighbourhood Mobility Action Plan in WP2 to the implementation of measures in WP3 and the assessment and evaluation activities in WP4). The Core Group in cooperation with the city partners organizes the participation process and defines the goals and methods to be applied, unless goals and methods have been otherwise outlined in one of the project deliverables (e.g. in the SWOT-Dossier D1.1, the Neighbourhood Mobility Dossier D1.2, the Participation Action Plan D2.3 or the Neighbourhood Mobility Action Plan D2.4).

Thus the role of the Core Group in the NML can be summarized as:

- Overseeing the co-creation process as such
- Defining goals of the co-creation activities in line with each of the steps in the co-creation process (i.e. the work packages)

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- Steer the activities in each step of the co-creation process (activation, participation, implementation) in cooperation with the city partner
- Oversee the drafting of the strategy documents with support of the Technical Service Partners (e.g. the Local Participation Strategy D2.3 and the Neighbourhood Mobility Action Plan D2.4; the Implementation Guidelines of WP3 etc.)
- The NEM (Neighbourhood Evaluation Manager) as part of the Core Group is responsible for all documentation activities necessary for the assessment and evaluation of the co-creation process and the measure implementation process

5.3 Operational Phase: Continuation over the Course of SUNRISE

As mobility labs (living labs) take locally specific forms, the following checklist outlines the main questions that need to be addressed for successfully operating a lab.

Checklist for the operations of a Mobility Lab in SUNRISE:

- What will the Mobility Lab deliver in the course of its operation? (Sustainable neighbourhood mobility planning recommendations)
- What are the expected outcomes of the living lab? (Status-quo description of mobility issues, SWOT, Participation Strategy, Neighbourhood Mobility Action Plan, Implementation Plan, Evaluation activities)
- What are the milestones for the operation of the Mobility Lab? (these are largely in line with SUNRISE's project milestones)
- What resources (personnel, know-how, materials, and finances) are necessary for the operation? (this point is mainly covered by SUNRISE project)
- Who are the key actors for the Mobility Lab? (covered in the WP2-Local City Workshops, see as well D2.1 "Handbook on Participation Strategies"). During the life of the lab, actors may become more or less relevant, thus it is important to keep an eye on the changing actor structure in your neighbourhood.
- How are decision and management processes in the lab defined? This point refers to the way in which decisions within the lab are taken, i.e. majority or unanimous decision. Both ways have advantages and disadvantages, and may be applied depending on the topic of the decision to be taken. In any case, decision making procedures need to be agreed upfront and documented (e.g. in the "Memorandum of Understanding" from the co-identification & co-validation phase or in a separate document)

5.4 Links to Evaluation Activities WP4

As both the SUNRISE project and the Neighbourhood Mobility Lab have a special focus on learning processes reflected in the co-learning and uptake activities and in the co-assessment and co-evaluation activities, the efficacy of the co-creation process within the NML will be evaluated to learn lessons. This evaluation is structured in particular through work package 4 (task 4.3 "Co-monitoring and co-assessing the process", document "Co-Creation Evaluation Report" - CCER),

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which provides all necessary information on the documentation and evaluation for the NML-process. Assessing the co-creation process will provide important insights for the evaluation of the NML.

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6 Tips for a Successful Neighbourhood Mobility Lab

6.1 Good Practice Examples

CityLAB Graz, Austria

CityLAB Graz is a research and innovation platform for urban development processes, closely affiliated with the local Smart City-Agency (www.smartcitygraz.at). This lab aims at developing and implementing projects in the urban context in collaboration with a diverse set of cooperation partners. Key principles are:

- Opening of the innovation process and inclusive participation
- Fostering dialogue and communication at eye-level
- Experimenting and learning
- Collaborative knowledge production and sharing
- System change and user-driven innovation
- Following the goals of sustainable development[5]

http://www.stadtlaborgraz.at/ (in development) or

http://www.openlivinglabs.eu/livinglab/citylab-graz

aspern.mobilLAB, Vienna, Austria

aspern.mobilLAB is a recently founded Mobility Lab in Vienna's newest urban development district "Aspern Seestadt" aiming at co-operatively developing solutions for sustainable urban mobility in the neighbourhood. This lab is a platform and a physical infrastructure in the form of an office on-site, in which scientists, citizens and enterprises develop and test new mobility solutions.

http://www.mobillab.wien/

https://www.facebook.com/aspernmobillab/

[5] Taken from http://www.openlivinglabs.eu/livinglab/citylab-graz

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Malmö Living Lab, Malmö, Sweden

Medea is a Living Lab that works with a participatory design approaches and social innovation in the city of Malmö. It is based at Malmö University.
Long-term engagement of different stakeholders in the city (from citizens to NGOs, companies and civil servants) forms the core of this Living Lab. A design-practice approach is used to co-design and co-produce new practices, services and products. Albeit this lab has a wider thematic focus, it is a good example of a continuous, long-running Living Lab as it was founded already in 2007.

http://medea.mah.se/malmo-living-labs/

6.2 Further Readings

Living Labs Handbook:

https://drift.eur.nl/publications/gust-handbook-urban-living-labs/

Collection of Living Labs in Europe and beyond:

http://www.openlivinglabs.eu/livinglabs

CIVITAS Living Labs:

http://civitas.eu/projects

Mobility Lab Research Center, USA:

https://mobilitylab.org/

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8 Partners

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