













Social uplifting and modernization of suburban areas with Urban Living Lab approach 01-04-2013 – 30-03-2016

Deliverable 2.2 Assessment of the suitability of different Urban Living Labs methods for modernisation and social upgrading actions

Authors: Maija Federley

Anja Karlsson

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1 EXECUTIVE SUMMARY

Urban Living Labs are development environments that integrate residents and other stakeholders to develop and test new solutions in their daily life. The users of the new services or solutions are active partners in the whole development process, which happens in the real urban context. Urban Living Labs utilize various co-design methods for understanding the needs, generating solution ideas, presenting ideas and evaluating the solutions in practice. In addition, citizen participation methods are used for participation in decision making and taking action.

This report presents the Urban Living Lab methods used in the project. The aims, set-up and outcome of the methods are presented and suitability of the methods for the modernisation and social upgrading actions in the project is discussed. This report focuses, however, on the participatory methods separately. A more detailed evaluation and analysis of the living lab approach, its suitability and impacts, including also the utilisation and suitability of the used participatory methods as a part of it, is presented in project report 4.1/4.2 *Evaluation of the Urban Living Labs in Alby and Peltosaari*.

The methods that were most used for involving stakeholders in the Urban Living Lab activities of this project were interviews, questionnaires and workshops (face-to-face). This was due to the characteristics of the planned activities and the target groups to be engaged. For example in Peltosaari, the initial interviews indicated that the residents will probably not be well reached via online methods. This preconception was further strengthened by the resident questionnaire results. The social media tools and the events arranged for school children were introduced during the project and they seemed promising in reaching new groups of residents but it is too early to assess their influence on engaging people into participatory activities.

The expectations of the outcome of the methods were in most cases met. Even when the number of participants was smaller than aimed at, it usually turned out that the result was nevertheless good. A great concern is representativeness of the involved group in cases where it is essential. The emphasis on the participatory activities in the ULLs of this study was on "Understanding people and issues" and "Generating ideas" which is reflected by the selected methods. A drawback of the traditional methods (e.g. workshops, interviews) is that they are quite laborious to set up. New methods and approaches should be further developed, explored and trialled with but that is impeded by the practical constraints: There's less risks in utilising methods that a facilitator has earlier experience on and it is easier to estimate the needed resources. Also, participants are often more comfortable to participate in methods that are already familiar to them. If a new method fails when participants have been recruited, the chance for involving them may be completely lost.

Based on the experiences from the study, the following topics for further research and development related to ULL methods were highlighted:

- Enabling effortless interaction in development activities through embedded technology solutions
- Approaches for engaging people who are not used to participation and those who are in risk of segregation
- Potential differences resulting from using online- and face-to-face -methods

2 Introduction

2.1 About the SubUrbanLab-project

Across Europe, some 200 million people live in suburban areas in great need of modernisation and social uplifting. The SubUrbanLab project (2013-2016) aims to examine how these areas can be modernised and socially uplifted together with the residents and other stakeholders in order to turn into more attractive, sustainable and economically viable urban areas.

The project has developed and set up so called Urban Living Labs (ULL), i.e. arenas for innovation and dialogue that focus on solving challenges in the urban area by involving residents and other stakeholders, in connection to needed modernization actions in one suburb in Sweden (Alby in Botkyrka municipality) and one suburb in Finland (Peltosaari in the City of Riihimäki). In total six Urban Living have been set up, three in each suburb. Within the Urban Living Labs, residents and other stakeholders have been involved, using e.g. online tools, social media and face-to-face meetings, in developing and implementing innovative solutions to increase the social, economic and environmental sustainability in these areas in great need of modernisation and social uplifting. The methods and the relevant stakeholders have been defined for each Urban Living Lab based on its specific goals, and thus the ULLs are clearly different from each other. This report presents the methods that have been utilised in the study and describes the use contexts of the methods. It also discusses the results and the challenges in utilising participatory methods in Urban Living Labs focusing on sustainable development of suburbs.

The neighbourhood Peltosaari is located next to Riihimäki city centre and railway station, in the southern Finland. Approximately 3,000 inhabitants live in Peltosaari (2015). The buildings in Peltosaari represent typical concrete apartment buildings constructed during 1970's and 1980's. The challenges in the area include the technical condition of buildings, low interest from private investors, social problems caused by large number of social housings and general untidiness. The market prices of the apartments in the area are remarkably lower than in other areas with similar location close to railway station and services. On the other hand, the residents value the area for numerous features: Peltosaari is sparsely built with a street plan that is safe for pedestrians and it is close to nature. There is an active resident association that arranges events for residents and runs a recycling centre, as well as other organizations working in the area for the well-being of residents.

The neighbourhood Alby in Botkyrka municipality is a suburban area in the south of Stockholm, Sweden. Around 13,000 inhabitants live there. The housing stock in Alby was built in the early 1970's. The area is characterized by large-scale uniform buildings and sterile public spaces. Like many other neighbourhoods built during this time, Alby is in urgent need of comprehensive renovation and renewing of both the housing stock and its surroundings. The area also faces social challenges, such as high unemployment rates and segregation. Approximately 60% of the inhabitants originate from other countries than Sweden. The development of the area is constrained by economic resources. However, Botkyrka is known for its rich cultural life and focus on sustainability.

Project partners are: IVL Swedish Environmental Research institute, Botkyrka municipality, VTT Technical Research Centre of Finland Ltd. and City of Riihimäki.

The project is funded by VINNOVA and Tekes through Joint Programming Initiative – Urban Europe.

2.2 Purpose and target group

The purpose of this report is to give an overview of the methods utilized in the project and how they have been applied in different contexts. The aim is also to provide viewpoints on how to select methods and what kinds of factors should be considered when planning participatory activities in Urban Living Labs focusing on sustainable development in suburbs. The focus in this report is on presenting the wide variety of methods and examples of their utilization. The methods are not in this report assessed from the perspective of the overall goals in the specific urban living lab activity. A more detailed evaluation and analysis of the living lab approach, its suitability and impacts, including also the utilisation of the participatory methods as a part of it, will be presented in the project report 4.1/4.2 Evaluation of the Urban Living Labs in Alby and Peltosaari.

This report is targeted for anyone planning or launching participatory activities related to urban planning or other development projects in urban context – municipalities, housing companies and researchers, but it can be equally interesting for companies, third sector actors and researchers with a bit different focus in their endeavours. Additionally, for the researchers working with participatory methods the report may provide ideas for new ways to apply methods and for developing them further.

2.3 Contributions of partners

The authors of this report are Maija Federley (VTT) and Anja Karlsson (IVL). The report has been reviewed by Riikka Holopainen (VTT).

2.4 Relations to other activities in the project

This report draws on the methods and the boundary conditions presented in the project report 2.1 *Boundary conditions for successful Urban Living Labs* (Friedrich, P. et al., 2013). This report together with the reports D3.1/3.2 (Karlsson, A. et al., 2015) and D3.3 (Karlsson, A. et al. 2016) constitute the documentation and dissemination of the outcome of the work carried out in the planning and implementation phase of the Urban Living Labs in the project.

This document reports the experiences gained during the project about the participatory methods and it outlines areas for further development of the methods. It thus provides inputs to the evaluation of the Urban Living Labs (Task 4.1) that will be reported in the report 4.1/4.2.

2.5 Methodology

This report bases on the review of the urban living lab methods and the division of them based on the development phase that was reported in the report by Friedrich, P. et al (2013). Thus, that report presents references to the publications and the previous studies on the methods. This report focuses on documenting the applied methods and the findings related to that work. The descriptions of the methods in this report are based on the diverse documentation composed during the project.

3 BACKGROUND

The report by Friedrich et al. (2013) defined an Urban Living Lab as a regional forum for innovation and dialogue that focuses on solving challenges in the urban area. Based on the review of the related literature, the report summarized that an ULL includes the following features:

- it integrates researchers, public organizations, residents and companies to codevelop new solutions
- the users of the developed services or solutions are active partners in the development work during the whole process
- the solutions will be developed and evaluated in the real use context
- besides producing the concrete solutions, the aim is to learn and exchange knowledge among the partners
- the activities are encouraging and rewarding for all participants

The recently published Strategic Research & Innovation Agenda of JPI Urban Europe (JPI Urban Europe, 2015) defines an Urban Living Lab as follows: "A forum for innovation, applied to the development of new products, systems, services, and processes in an urban area; employing working methods to integrate people into the entire development process as users and co-creators to explore, examine, experiment, test and evaluate new ideas, scenarios, processes, systems, concepts and creative solutions in complex and everyday contexts."

3.1 Urban Living Lab methods

Regardless of what definition of the ULL is considered, the element of integrating and engaging people into co-development process is always highlighted. Yet the Urban Living Lab approaches don't provide any specific methodology but methods from user-centred design, participatory design and citizen participation are applied (Friedrich et al., 2013). Urban Living Labs make use of different co-design methods, both face-to-face and online, to involve all relevant stakeholders in the process of planning, designing, developing and evaluating new solutions. The methods that should be used depend on the characteristics of the ULL, participants, goals and the state of the development process.

Table 1 presents a summary of the potential methods to be utilised in Urban Living Labs (published in the report by Friedrich et al., 2013). The methods can (and should) be applied in Urban Living Labs for different purposes, and consequently the selection and the actual way of implementation of a method should be made considering the target group and the goals of the ULL.

Table 1. Participatory methods grouped based on their purpose and art of implementation (Friedrich et al., 2013).

Purpose	Method	Face- to-face	Online
Understanding people	Interviews	х	х
and issues	Observation	х	
	Questionnaires	x	х
	Focus groups	х	х
	Diaries	х	х
	Cultural probes	х	х
Generating ideas	Workshops	х	х
	Walkshop	х	
	Brainstorming	х	х
	Idea competition		х
Presenting and evaluating	Scenarios	х	х
solutions	Storyboards	х	х
	Films	х	х
	Mock-ups	х	
	Field test	х	
Participating in decision	Dialogue meetings / forum	х	х
making	Citizen panel	х	х
	Chat		х
	Voting	х	х
Taking action	Citizen parliament	х	
0	Mini pilots	х	
	Change agents	х	

3.1.1 Owela innovation platform

Owela is an online platform for open innovation and co-design with users, developers and other stakeholders (http://owela.fi). The platform has been developed by VTT Technical Research Centre of Finland Ltd. It provides tools for gathering understanding of users' needs and experiences, for developing new innovations, for evaluating solutions and for designing new products and services together. There are several language versions available.

Owela is not a specific set of methods but instead it is easy to adjust for many kinds of participatory activities. Many of the above mentioned participatory methods can be utilised through Owela platform. The most frequently used participatory methods in Owela are questionnaires, focus groups, brainstormings, scenarios and dialogue forums.

Owela platform was used in some ULLs of this study and it is thus referred to in later chapters.

3.2 Selecting a method

The elements that must be taken into consideration when starting Urban Living Lab activities were also defined in the report by Friedrich et al., 2013: Context, Goals and vision, People and motivation, Management and decision making, and Interaction process and methods. The recommended initial step, learning to understand the context where the living lab will be founded, most likely provides a lot of valuable information to support selecting methods for the planned ULL. The methods must be defined so that they fit for the specific area or environment where the activities are going to take place, as well as for the intended participants.

The key success factors for interaction process and methods were summarized in the report as follows:

- Choose and adapt the specific methods for interaction and channels for communication based on the different participants, the area and project goals.
- It is important to consider which methods create a possibility and atmosphere for all relevant residents and other stakeholders to participate and express their opinion.
- Adapt the level of information, language, and vocabulary to the different involved participants and their expected comprehension of the issue.

Besides reading the reports of the previous studies and projects carried out in Alby and Peltosaari, the work was started with interviews and observation in the areas for familiarizing with the context. The knowledge gained during that phase affected significantly the selection of methods and the ways to engage people in the following phases. Below is briefly presented some examples of the findings and conclusions made based on the familiarization:

- Several places and events where the target groups can be reached (without extra effort from them) were identified, both in Alby and Peltosaari. These "natural contact points" were used in later phases for distributing questionnaires, organizing workshops and involving people into actual activities.
- It was also important to identify the already planned or ongoing, potentially related activities in the area. For example in Alby, collaboration with Boodla was established for A-ULL1 "Shape your world". Similarly in Peltosaari, some other ongoing projects of the city of Riihimäki were linked to P-ULL3 "Together more" and collaborated with.
- Online methods were not used in Peltosaari as much as originally planned due to that it appeared to be inefficient way to reach inhabitants of the area. Several municipal officials and other contact persons in initial discussions mentioned that the inhabitants rarely contact them by email and that the response rates in online questionnaires have been poor. Similar observations were made during the study when questionnaires were conducted. However, the situation may be different in other areas, with other target groups and it also changes rapidly as the use of smartphones and tablets constantly increases. Additionally, new kinds of methods for (mobile) online participation should be further studied.
- Many of the inhabitants in Peltosaari had already participated in the participatory activities during earlier projects. The experience had not always been rewarding. Additionally there existed some frustration at the slow progress and poor opportunity to influence. Thus, the attitudes towards participation and commitment were not generally positive. Accordingly, the ULLs and the participatory methods were designed so that the load on the inhabitants would be small. Communication and presence in the area were especially paid attention to during the work.

- Observation in the area and informal discussions with the inhabitants helped to adjust the vocabulary and style of the notices and questionnaires. Furthermore, it would be good to have a person who's very familiar with, or represents, the target group to precheck the material.
- The background study also highlighted the importance of careful consideration on the scope of the ULL in advance, for example: What is the realistic timeframe to achieve visible results? How much will the participants be able to influence the outcome, and what are the constraints in practice? Who are the actual key stakeholders in the ULL? Are there underlying assumptions? If yes, how to check if they are valid or not? For example in Peltosaari, the scope of the ULL concerning inhabitants was adjusted towards rapid experiments and activities requiring short-term engagement, which also affected the selection of methods.

3.3 Descriptions of the Urban Living Labs

Six Urban Living Labs were implemented within the SubUrbanLab project: three in Alby (Sweden) and three in Peltosaari (Finland). The ULLs are briefly described below. For a more detailed description of the ULLs, see the report *Establishment and implementation of Urban Living Labs in Alby and Peltosaari* (Karlsson et al., 2016).

Urban Living Lab 1 in Alby "Shape your world" (A-ULL1)

Alby ULL 1 "Shape Your World", which was implemented November 2013 – October 2014, provided children and young adults (age 12-16) as well as youth leaders with the opportunity to increase their knowledge and understanding of sustainable development and urban gardening while participating in renewing their urban environment. The ULL took place at Alby Youth Club where the children and young adults together, through workshops, renewed and uplifted the youth club using urban gardening.

The goals with the ULL were to provide children and young adults the opportunity to increase their interest, knowledge and skills about gardening, the environment and sustainable development; to provide children and young adults an increased interest, knowledge and skills about how to engage, participate and have an impact on local society; to offer children and young adults meaningful leisure activities related to sustainable development; and to renew the urban environment through gardening, thereby increasing the suburb's attractiveness and the environment.

The ULL "Shape you world" was implemented by the SubUrbanLab project partners in Sweden, IVL and Botkyrka, in cooperation with Boodla (www.boodla.se), a social entrepreneur that together with children and young adults creates gardens in urban environments.

Urban Living Lab 2 in Alby "New light on Alby Hill" (A-ULL2)

The second ULL in Alby, "New Light on Alby Hill", was implemented during the autumn and winter of 2014/2015. The ULL focused on how using new LED technology and light installations (projection of images) could turn a pathway for pedestrians in Alby Hill, perceived as unsafe, into a more attractive and frequently used area. The chosen pathway had been identified by residents in previous surveys and safety walks as a prioritized area. The lighting – consisting of ambient light and projection of four images (light installations) on the pavement and stone walls along the pathway— was planned, designed and implemented together with local residents and other stakeholders. The newly formed Residents Council (Borådet) in Alby Hill was involved in the planning of the ULL as a whole and the design of ambient light, while all interested residents and stakeholders could contribute with images for

the light installations under the theme "Our Alby". The winning images were chosen by the residents through an open voting on the ULL website www.nyttljus.eu and with QR-code posters/leaflets.

The goals with the ULL were to improve the residents' sense of security in the area; to create a more energy efficient street lighting using LED technology and ambient light; and to open up to greater engagement and participation among Alby Hill's residents and other stakeholders in order to facilitate future dialogue processes.

The A-ULL2 "New Light on Alby Hill" was implemented as collaboration between Botkyrka municipality, Mitt Alby (private housing company), College of Arts and IVL.

Urban Living Lab 3 in Alby "Vacant Space Alby" (A-ULL3)

A-ULL3 "Vacant Space Alby", implemented September 2014 – September 2015, focused on identifying possible temporary (10-15 years) uses for a vacant space in Alby Centre, together with residents and other stakeholders. The vacant space, a former school ground, had been empty and not in use since the school was demolished in 2009. The long-term plan for the space was to build residential buildings. However, since the area would be affected by the lowering of the connecting Alby road, a measure that was planned to take place in 10-15 years' time when the road had reached its service life, the space needed a temporary short-term use. Residents and other stakeholders were involved in the ULL using workshops and online-discussions on the ULL website. The suggestions for temporary uses of the space, developed together with residents and other stakeholders, were summarized in a report, together with ideas on financing, and submitted to the decision-makers in Botkyrka municipality.

The goals of the ULL were to plan and carry out a dialog with affected residents and stakeholders; try new methods for participation (web based); develop and test the Alby District Group's ability as an organization to carry out an ULL; and to develop a number of suggestions for possible temporary uses for the vacant space.

The A-ULL3 "Vacant Space Alby" was implemented by the SubUrbanLab project partners in Sweden, IVL and Botkyrka municipality. From Botkyrka municipality the involved organization was the Alby District Group. The District Group in Alby is responsible for strategic planning of the developments in the district, in dialogue with residents and other stakeholders. Their task is also to coordinate the different stakeholders in the district, including the different municipality administrations/companies and their cooperation partners to make sure their regular assignments are implemented successfully. Alby District Group consists of representatives from all municipal administrations, the police, the local housing companies and the local culture cluster Subtopia.

Urban Living Lab 1 in Peltosaari "Energetic co-operation" (P-ULL1)

The Urban Living Lab "Energetic co-operation" was implemented between May 2014 and November 2015. It focused on improving energy efficiency in rental apartment buildings, both through technical solutions and through enhanced awareness of the residents and the personnel responsible for maintenance. The challenge has been that there aren't sufficiently data on the energy consumption to be able to target the development efforts to decrease energy consumption feasibly. The representatives of the housing company at Riihimäki, the residents of the house selected for the case study and the companies providing technical solutions for managing energy consumption were involved into the ideation, development and evaluation work. Contributions from the stakeholders were gathered through numerous meetings, phone calls and emails. A questionnaire was distributed to the residents and a discussion and evaluation event with residents was organized.

The goals of the ULL were to provide more detailed information about the energy consumption in apartment buildings in Peltosaari, to contribute to controlling the living costs, to explore solutions for decreasing the energy consumption and to raise interest of the stakeholders in saving energy.

The P-ULL1 "Energetic co-operation" was implemented by the SubUrbanLab project partners in Finland (City of Riihimäki and VTT) and the rental housing company Kotikulma.

Urban Living Lab 2 in Peltosaari "Sustainable decisions" (P-ULL2)

The Urban Living Lab "Sustainable decisions" was implemented between April 2014 and September 2015. It focused on developing ways to incorporate more clearly the city's climate and energy commitments and targets as well as future regulations into decision making of the municipality. Workshops bringing together decision makers and city representatives, and activating dialogue and co-development around the topics were arranged, and ideas for improving the practices were gathered. The goal of the ULL was to enhance communication between the city councilmen and the municipal officials and to support decisions on energy efficient and sustainable investments. One important part of this ULL was to provide a channel for mutual learning and interaction between the stakeholders so that the preparations and decision making will be efficiently aligned according to future needs and there will be enough information about alternative solutions in early stage of a project.

The P-ULL2 "Sustainable decisions" was implemented mainly by City of Riihimäki (including the city council) and VTT. Other important stakeholders in the ULL were the external experts and suppliers providing information of the alternative solutions, and representatives from other municipalities and governmental agencies.

Urban Living Lab 3 in Peltosaari "Together more" (P-ULL3)

The Urban Living Lab "Together more" was implemented between March 2014 and November 2015. It focused on arranging opportunities for low-cost leisure activities in the area and on creating easy possibilities for the inhabitants of Peltosaari to participate in the development of their living environment. The underlying goals were to decrease segregation and to increase communal feeling, to enhance dialogue between the municipality and residents and to support crossing the boundaries between the various identified groupings in the area.

ULL The comprised of three for development: concurrent areas 1) arranging places for activities and meetings (both indoors and outdoors), 2) piloting activities and events and supporting other actors' undertakings, and 3) increasing communication between the residents, municipalities and organizations. The work comprised of identifying opportunities, sharing information and contacts, bringing together relevant stakeholders and supporting the launch of activities. The inhabitants were engaged through interviews, questionnaires, discussion events and field tests. The collaboration with the associations and projects related to the objectives of the ULL was mainly built in meetings and events but also through informal encounters in the area.

The P-ULL3 "Together more" was implemented in collaboration between City of Riihimäki, VTT, Peltosaari Association, residents, Resident association of Kotikulma Oy, Peltosaari Parliament and other projects related to the area (LiiKuTa, Kulttuuriviritys, Caretaker of Vantaa River, Youth first). The ULL functioned mainly as a coordinator and facilitator for the activities organized in collaboration with other organizations.

4 THE ULL METHODS UTILISED IN THE PROJECT

In practice one method may often provide input for several purposes at the same time. For example a questionnaire may provide relevant information for understanding people and issues but the respondents may also present ideas (either because such topics or questions have been included by purpose, or they happen to come up). Nevertheless, in the following chapters the utilised participatory methods are described following the division to five different purposes (see Table 1 in Chapter 3.1).

4.1 Understanding people and issues

Interviews

Interviewing stakeholders in Alby to understand the target group and the context to develop the A-ULL1 "Shape Your World"

In A-ULL1 "Shape Your World" interviews were used to understand the target group (youth), and the context of engaging youth in different activities in Alby. Representatives from existing youth organisations and the municipality (working with youth) were interviewed during the development phase of the ULL. During the interviews, the idea of "Shape your world" was presented and discussed. One aim was to learn from the experiences of representatives already working with the target group (youth) but also to get input on how to best implement in "Shape Your World" and engage youth. A second aim was to inform important stakeholders about the ULL and upcoming activities. The youth organization and municipality representatives were contacted via e-mail or telephone introducing the ULL, and based on the interest from the stakeholder a face-to-face-meeting was set up. At least nine representatives from different youth organizations and the municipality were interviewed in the development phase of the ULL providing their insight on e.g. how to reach and engage youth, the potential difficulties and the most important "success-factors". The interviews gave great insight to the youth as a target group and the issue of working with youth in Alby. These insights were used to adapt and develop the project further according to the context. Interviews were a suitable method for involving stakeholders and get their input on the ULL in the development phase but also for introducing the ULL to important stakeholders at an early stage.

Interviewing stakeholders in Peltosaari to understand the target group and the context to develop the P-ULL3 "Together more"

The planning of Urban Living Labs in Peltosaari was initiated with interviews of various stakeholders having knowledge of Peltosaari: Social workers, housing company representatives, inhabitants of Peltosaari, and representatives of Peltosaari Association and Peltosaari Parliament. Altogether seven interviews (9 persons) were conducted, all face-to-face. The first persons to be interviewed were suggested by the project partners from the city of Riihimäki, after that new suggestions were asked in each interview. Many of the interviews took place in Peltosaari, so the area became also gradually more familiar to the researchers in the project and additionally enabled some informal discussions with other people in the area. The interview data provided valuable information mostly for the P-ULL3 "Together more" and affected significantly its focus and implementation, but it also supported planning and introduction of other ULLs at Peltosaari. Semi-structured interview method was used. The themes in the interviews were: Characteristics of the area, earlier experiences of citizen involvement, communication and participation in the area and views about the planned actions and conditions for successful citizen participation. The interviews provided substantial

knowledge of the area, its characteristics, prominent stakeholders and groups that would be important to reach, and of the approaches for reaching people. The interviews also provided a good opportunity to inform about the planned ULLs and to network with the people who already have contacts to numerous actors in the area. The face-to-face interviews were essential in setting up the ULLs in the situation where the area and the relevant stakeholders were not previously familiar to all key persons in the project team.

Observation

Observation and informal discussions with the inhabitants in Peltosaari during events and in the local meeting places to learn to know the context and people

Although not applied as a pre-planned systematic method in the P-ULL3 "Together more" in Peltosaari, observation (and presence in the area in general) turned out to be an efficient and valuable way to gain understanding of the context, target group and ways to engage people into development activities. The researchers participated in the events in the area and the representatives of the city of Riihimäki had a temporary office in the area that they used at least weekly during the study. Several contacts were made during these visits, informal feedback was received (that otherwise would not have been heard), ideas were created and further developed and insights were gained. Probably most importantly, the presence in the area and familiarization with the people built trust and positive attitudes towards the plans and activities related to the ULLs.

Questionnaires

Questionnaire to understand the residents and their experience of security on Alby Hill

In the A-ULL2 "New light on Alby Hill" a questionnaire was used for collecting input from residents using the targeted pathway in need of uplifting. The aim was to better understand the people (residents on Alby Hill) and the issue (street lightning and sense of safety in the area) in the development phase of the ULL. First, a questionnaire was developed with questions such as "Do you feel safe using the pathway when it is dark?" and "Do you feel you can participate in the developments in your neighbourhood?". The questionnaires were then distributed on two occasions to pedestrians (residents) using the pathway. The questionnaires (on paper) were filled in by representatives from the project team on-site approaching the pedestrians and asking them the questions in the questionnaire. Approx. 80 pedestrians responded to the questionnaire, which gave an insight to the residents' views on using the pathway and being involved in development projects in their neighbourhood. An on-site questionnaire like this, in connection to the location being uplifted, was a good method in this project to collect the views of the residents using the pathway. The main difficulties with the questionnaires were language barriers (many residents in Alby are non-Swedish/English speakers) and the difficulty of creating easy-to-understand questions that capture what the project team wants to know. The questionnaire used for the A-ULL2 "New light on Alby Hill" consisted of a mix of open-ended questions such as "What do you think about this pathway?" and closed-ended questions such as "Do you feel safe using the pathway when it is dark?" in order to capture as many aspects as possible. It is important to keep in mind that the degree of participation in a questionnaire can vary and depend on the questions asked and in what way. Generally, open-ended questions provide a higher degree of participation when the respondent can express themselves freely. The questionnaire was also used as part of the evaluation, and an identical questionnaire was also carried out after the implementation of the ULL.

Questionnaires to the residents of the Innova house (i.e. the building that was selected as a target for exploring opportunities for improving energy efficiency)

In the P-ULL1 "Energetic co-operation" a brief multiple choice questionnaire about the temperatures in the apartments, air quality and awareness of the maintenance tasks was compiled and dealt out to each apartment of the Innova house in October 2014. The aim was to gather background information for planning the activities and to introduce the dialogue about energy efficiency with the residents. A box was placed in the staircases where the residents were asked to return the filled-in questionnaires. No responses were received. Distribution of the questionnaires to the apartments without further promotion of the topic and its relevance to the residents and with no incentives for the respondents was a failure.

A similar questionnaire was compiled to be dealt out in the resident event in September 2015 (the resident event is described in more detail in Chapter 4.2). At that point the scope of the ULL had been adjusted and thus residents' opinions about guidance to carry out maintenance tasks on their responsibility were also asked in the questionnaire. Four residents participated in the event. They were asked to fill in the questionnaire in the beginning of the event and to return it to the researchers, which they all did. Although the sample is not representative of the 37 apartments in the building, the answers gave a good indication of the potential challenges in ventilation of the building and of the expectations of the residents for support from the housing company. The questionnaire also worked as good introduction to the topics and discussions in the event.

Questionnaires to the councilmen and municipal officials as a preparation of the workshops and gathering ideas for further improvement of collaboration

In P-ULL2 "Sustainable decisions" altogether four questionnaires were conducted. A link to the first online questionnaire was distributed beforehand by email to registered participants of a workshop for councilmen and officials of the City of Riihimäki. The goal was to gather information on how familiar the participants were with the topics of the workshop and how the agreements and commitments of the city currently influence the work of the participants. 33 responses were received. The responses were utilised in final preparations of the workshop, and they also contributed to the evaluation of the ULL.

In context of the two workshops that were arranged in the ULL feedback questionnaires were distributed. These questionnaires mostly served the purpose of Presenting and evaluating solutions, as described in Chapter 4.3. The respondents were asked to give feedback on the contents and the arrangements of the workshop, to evaluate contribution of the workshop for their own work and to present suggestions for improvements. In the questionnaires there were 12 statements that the respondents were asked to assess on a 5-level likert-scale. Additionally there were open questions for presenting priorities and suggestions for future work for supporting sustainable development in the city. The questionnaires were filled in during or right after the workshop and the responses were collected at the venue, which resulted in decent response rates (66% and 50%).

The purpose of the fourth questionnaire was primarily to gather data for evaluating the impacts of the ULL but the responses also gave insight into how the trialled new methods for improving the collaboration and sharing information were experienced, and thus contributed to evaluating solutions. Additionally the respondents could present in the questionnaire other ideas for supporting the work in the city towards sustainable development. A link to questionnaire website was sent by email to the whole target group of the workshop (councilmen and relevant municipality officials, approximately altogether 80 recipients). Nine responses were received.

The questionnaires gave good indication of the topics that the involved people regarded as important, and they also supported development of information sharing and collaboration

between the councilmen and officials. It was however not possible to get a clear picture of the current procedures and to pinpoint the main bottlenecks based on the brief questionnaires with the relatively limited group of respondents. Complementary interviews or focus group discussions would probably have provided more valuable information and enhanced codevelopment of new solution ideas.

Questionnaire to inhabitants of Peltosaari to learn about their views on attractiveness of the area and participation to the activities

The P-ULL3 "Together more" was started with a questionnaire to inhabitants of Peltosaari. A three-page multiple-choice questionnaire was prepared. The questions concerned pleasantness of the neighbourhood, availability of leisure activities in the area and respondent's attendance in them, perceived opportunities to affect the decisions concerning own neighbourhood, and used communication channels to follow plans and news about Peltosaari. In two open-ended questions the respondents could present their views on main targets for development or suggest ideas for improving attractiveness of the area. The aim of the questionnaire was to learn about the perceptions and wishes of the inhabitants and also to define "a baseline" for the evaluation. The main targets for development activities for later phases of the ULL were also selected based on the questionnaire data, complemented with the data from initial interviews and earlier studies.

The researchers of the project dealt out printed questionnaires at the Peltosaari pedestrian street during the Opening of the summer season -event. The passers-by could stop at the project desk and fill-in the questionnaire there and return it right away or later to the same spot. Respondents were rewarded with a small candy bar for their contribution. During the five hour campaign 74 responses were received. The questionnaire was also available on the website of the city which was promoted on a poster at the pedestrian street. 15 responses were obtained through the internet.

The questionnaire was the first widely visible activity of the project in the area, and its purpose was not only to contribute to understanding people and issues in the area but also to inform about the project and to initiate the dialogue with the inhabitants. This succeeded well, partly because the opening event was popular and the weather was good, and thus there were a lot of people on the move. The inhabitants were also interested in hearing about the plans of the project and to share their thoughts about the positive and negative sides of Peltosaari. Targeted number of the responses was gained, and the age and gender distributions were sufficiently balanced.

The questionnaire and taking presence in the area was a good approach for learning about the area, its specific circumstances and inhabitants' views. It also supported building trust which is necessary for the work. Based on the questionnaire results the main focus areas for future activities in the ULL were identified. It also provided indication of the efficient ways to reach people in the later phases. The disadvantage of the approach was that it is time-consuming. To reach the targeted number of responses an active recruiting at the pedestrian street was necessary. A concern with the approach is that the data gained is potentially skewed: The people who participate in the event and are willing to respond to a questionnaire may be the same who are also otherwise active in the area and/or participate in development work. Furthermore, discussions of the respondents with the project team members in the event may already affect attitudes and reflect to responses. This would be an interesting topic for a further study in case a sufficient number of responses could be obtained both through internet and during the presence of a project member. Also, simplicity and understandability of the questionnaires (e.g. following Easy to Read-model) should be even further improved as it was obvious that the amount of text on the questionnaire was laborious for many respondents. Additionally using a large font size and even having spare reading glasses available at the desk for the respondents is recommendable, especially if senior citizens belong to the target group.

All things considered, the presence of the researchers in the area and distribution of the questionnaires in the event was anyway an advantageous approach: It resulted in a good number of responses during a day, enabled free discussions with inhabitants and introduced the project in a positive manner in the area.

The questionnaire was also used as part of the evaluation, and a similar questionnaire was carried out after the implementation of the ULL.

Focus group

Focus group with local residents' council in Alby to get input on ULL development

In the A-ULL2 "New light on Alby Hill" the Residents' Council on Alby Hill was invited early in the development phase of the ULL with the aim to give feedback (on behalf of the residents) on the suggested process and activities of the ULL. The representatives from the Residents' Council were invited via telephone and e-mail to attend a face-to-face meeting (focus group). During the meeting the representatives, with an ULL team representative as a moderator, discussed the setup of the A-ULL2 "New light on Alby Hill" based on a presentation of the suggested ULL and with help from a number of prepared questions. During the focus group discussion, the representatives discussed the proposed ULL and gave their input based on their local knowledge. Three representatives from the Residents' Council participated joined the focus group and provided the ULL project team with valuable information to understand the people (residents on Alby Hill) and the issue (street lightning and sense of safety in the area), used to further develop the ULL. The focus group methodology was a suitable methodology for the target group (an association of residents) to get their input on the proposed ULL.

4.2 Generating ideas

Workshops

Urban gardening workshops with youth and youth leaders for co-creation

As part of the A-ULL1 "Shape Your World" in Alby, weekly workshops were organized to engage youth and youth leaders at Alby Youth Club in co-creation using urban gardening. The aim with the workshops was to generate ideas of what to be planted in the Youth Club and how. The workshops were also used for involving the youth and youth leaders in the decision making concerning the urban gardening at the Youth Club (see 4.4.). In total, 14 workshops were carried out between April and October (with a break during the summer) involving between 1 and 20 youths and youth leaders in each workshop. Based on the requests, interests and wishes from the participating youth/youth leaders different activities were carried out during the workshops. Activities included planting seeds and re-planting plants with focus on eatable plants, making gardening plans for the courtyard and setting-up and looking after a window-farm. As a harvesting activity, a pumpkin-carving workshop was organized on request from the youth/youth leaders. The youth/youth leaders were both directly involved in the ULL e.g. by deciding what to plant, choosing seeds and planning of gardening (court vard), but the involvement was also indirect where the more subtle attitudes and interests from youth formed the activities, e.g. the large interest in window-farming. For this ULL, reoccurring weekly workshops at the Youth Club (the youths' "comfort zone") were a suitable method for involving youth in co-creation using urban gardening as the activity of urban gardening was new to the youth and youth leaders.

Workshop for councilmen and city officials to support energy-efficient and sustainable investments

As part of the P-ULL2 "Sustainable decisions" in Riihimäki two workshops were organized to engage councilmen and city officials in enhancing communication and cooperation among the representatives of the city and in creating ideas for improved integration of the city's climate and energy commitments in decision making. The invitations were sent by email to approximately 80 persons altogether through different channels, followed by a reminder just before the deadline of registrations. 33 persons participated in the first workshop (5 councilmen, 22 officials and guests, 6 presenters and organizers) and 28 in the second (15 councilmen, 6 officials and 7 presenters, guests and organizers). The first workshop was organized during office hours (thus more suitable for officials' schedules) whereas the second was in the evening (thus easier for the councilmen to participate). The workshops had several goals: 1) to share information about the commitments, approaching regulations, new alternatives and plans under preparation, 2) to bring councilmen and officials together and encourage discussion on sustainability, and 3) to engage the participants in developing new ideas and practices. The workshops comprised of introductions of 2-3 topics, group work (in the first one) and discussions. Additionally questionnaires were conducted in the workshops, as described earlier.

In the first workshop the participants were divided into four groups. Topics related to development of Peltosaari and climate strategy of the city were discussed (open space method). Each group presented a summary of their discussions to others, and these were further discussed. In the second workshop group work was not organized but instead the whole audience had discussions after each introductory presentation (life cycle projects and energy-efficient construction). In addition to the discussions at the workshop, an online discussion forum on Owela platform was available before, during and after the second workshop for questions, ideas and comments from both participants and from those who couldn't participate. The presentations were available through the discussion forum and questions and answers presented during the workshop were documented there. However, the site was not utilised by anyone outside of the project team.

Also questionnaires were conducted in the context of the workshops (described in Chapter 4.1) and the workshops were simultaneously field tests of a potential new practice (described in Chapter 4.3).

The workshops received positive feedback from the participants and the discussions there were enthusiastic. The inputs from the participants contributed to selecting topics for following activities and for making suggestions in the organisation for new solutions. The method worked well as an initial step for encouraging discussions on development of practices in the organisation, enhancing communication and raising awareness. It is however obvious, that for supporting active cross-departmental information sharing and codevelopment of new solutions as a part of everyday work, a workshop once a year is not enough. Another challenge is that most likely the people who participate in a separately organized workshop are those who already have quite good knowledge and/or are also otherwise interested in the topic. Cross-departmental interaction and brainstorming of new sustainable solutions should be incorporated as frequent activities into the existing meetings and communication channels of the municipality, in order to reach wider attendance without excessive effort.

Workshop for residents of Peltosaari to gather ideas for increasing attractiveness of the area

In the P-ULL3 "Together more" a workshop was organized for the residents to further discuss the topics that came up in the initial questionnaire and to develop solution ideas for them. Based on the questionnaire the event focused on improving attractiveness, tidiness and general appearance of the area. The event was organized on a working day at 5 p.m. at Peltosaari school in the middle of the area. The event was promoted through posters in central places of the area.

Around 70 residents participated in the workshop. Warm beverages and biscuits were available in the event. First, a brief introduction of the project and its goals was given, and a summary of the results of the resident questionnaire was presented, framing also the scope of this workshop. Secondly, a representative of the street and park department of the city of Riihimäki told about the ongoing work of the program for developing green areas. Maps of the Peltosaari area and its surroundings were distributed on the tables in the workshop and the participants were asked to write comments and mark important places on the maps. In the discussions the participants emphasised especially the river and its surroundings and the pedestrian and bicycle routes as essential elements of good green areas and areas requiring more attention in the future. Thirdly, the plans to improve the pond and river area in Peltosaari for increasing its recreational use were introduced. An angling place will be built next to the pond and a guidance event will be organized for the pupils of Peltosaari school. The angling place will be open to anyone. After the introduction of the plans the participants presented some questions and suggested other improvements in the river and pond area (e.g. removal of trash and wood waste, preventing damage from flooding, enhancing circulation of water in the pond). The fourth item on the agenda of the workshop was a panel discussion with representatives of city of Riihimäki and Kotikulma housing company, and a resident. The facilitator asked the panellists about their views on improving attractiveness of the area, how to improve tidiness and what are the main challenges. The audience was also encouraged to ask questions and to comment on the topics. The discussion became very lively and numerous suggestions and viewpoints were presented by the workshop participants. A summary of the workshop discussions was compiled and published afterwards as a blog post on the project site. Suggested improvements that were considered easy and inexpensive to realize were listed and delivered for implementation. The contributions from the workshop were in general utilised as ideas for enhancing attractiveness of the area and for focusing the next efforts in the ULL (also serving "Participating in decision making" as described in Chapter 4.4: Dialogue meeting).

A good number of residents participated in the workshop and they contributed actively. In this context the arrangement with brief introductory presentations followed by discussion among the whole group worked well. The participants seemed reluctant to write ideas and suggestions on notes and maps. Comments and ideas presented by one participant also evoked new comments from other participants and thus discussion among the whole group was productive. Facilitation and note taking in the event need to be carefully planned in advance so that various views can be expressed, discussion remains sufficiently focused and constructive, and the contributions are documented.

The workshop was a good method for introducing some relevant topics for ideation, for initiating development of ideas and for interacting with residents. The discussions brought out several suggestions for improvements and engaged participants in the development work of the area. It is important to focus in this kind of workshop on the topics that can be proceeded with and to have some pre-planned scenarios of the ways how potential suggestions can be implemented in practice without excessive delay. The workshop also supported co-learning when for example necessary reparations and maintenance work, challenges related to them and distribution of responsibilities were discussed, both from residents' and service providers'

perspectives. Furthermore the event supported building trust and better communication between the residents and the city officials through the open discussions and making the faces of the city representatives more familiar for the residents. The challenge of the approach is however, that it may leave out many relevant target groups, for example due to lack of time for attending or uncomfortableness to participate in discussion in a large group. The participants of this workshop were for the most part elderly residents, many of them knew each other and many were also otherwise active in the area.

Workshop "tour" to collect suggestions for temporary use of vacant space

In the A-ULL3 "Vacant Space" a workshop tour among residents and other stakeholders was organized with the aim to generate ideas and collect suggestions (co-creating a plan) for a temporary use of an empty 9 000 m² space in central Alby (former school grounds). In total five workshops were organized inviting residents and stakeholders including the municipality, housing companies, local enterprises, cultural organizations, youth organization and parents' association. Before the workshops a number of questions and materials, including maps over the area and inspirational pictures, were developed. Based on the materials and the questions the participants (together with the ULL team) discussed ideas and put forward suggestions during the workshop for temporary uses of the targeted empty space. The different stakeholders were invited via e-mail and telephone to attend the workshops. The first workshop invited several different stakeholders (municipality, housing companies and CSOs) to together discuss temporary uses of the empty space while the following four workshops targeted one stakeholder group at the time (e.g. a youth organisation, a group of young girls and the Association Council). The workshops took place in the premises of the invited stakeholder or in premises in Alby provided by the municipality. The results of each workshop were afterwards summarized and the suggestion for temporary uses illustrated, and the results uploaded to the ULL co-creation website for further discussions. The results from each workshop were also used as input for co-creating a plan for the vacant space. All in all 45 stakeholders participated in the workshops.

To organize a workshop "tour", with prepared materials that could be adapted depending on stakeholder, was a suitable method in order to reach important stakeholders in the communities where they usually meet. To engage the stakeholders separately (as in the four last workshops) allowed for different views and perspectives to be voiced in the process of co-creation. The flexibility in time and location enabled the stakeholders to get involved on their own terms. However, it was important to inform the workshop participants that more stakeholders would be included in the workshop tour and to provide feedback to all participants involved to increase the understanding of the different ideas and suggestions put forward. Otherwise, one risk might be that the stakeholders think that their ideas and suggestions have been the only perspective and later don't understand the decisions made based on all input.

Workshop for residents of Innova house to discuss energy saving and maintenance of the building

In the P-ULL1 "Energetic co-operation" a workshop was organized for the residents of Innova house. The aim of the event was to gather ideas and feedback from the residents, to enhance communication and to discuss potential solutions for decreasing energy consumption. The agenda was planned and the arrangements were organized by the ULL team the representatives of Kotikulma housing company supported the preparations. The invitations to the workshop were distributed to each apartment of the building one week before the event. Additionally the invitations were put on the notice boards and front doors of each staircase of the building. The workshop was arranged on a working day at 6 p.m. at the premises of a day care centre in the Innova house. The participants of the workshop took part in a lottery of a gift card to a cruise.

Four residents came to the workshop. There were also four representatives of the ULL team present and one representative of Kotikulma housing company. First, brief introductions of a temperature controlling system and on the measurements and studies about the Innova house were presented by representatives of City of Riihimäki and VTT. After the presentations the participants were encouraged to tell about their experiences of living in the Innova house, to give feedback and suggest solutions for decreasing energy consumption and improving maintenance of the house.

The workshop had a good atmosphere for discussions and a lot of various topics were covered. The participants contributed actively and had many interesting suggestions. The residents were very knowledgeable and had noticed a few subjects for improvements but were also willing to take responsibility of suitable maintenance tasks. Due to several challenges and delays in this ULL, this workshop was the the first contact with the residents of the Innova house. The residents appreciated the opportunity to discuss the maintenance of the apartments and the building, to hear about plans concerning the building and also to be able to present their own expectations and ideas. The results of the workshop were promising and the event provided good ideas for the next steps but unfortunately they could not be implemented during this ULL. The results were reported to the housing company for their further use.

Another goal in the workshop was to evaluate a draft of a guide leaflet for residents, providing information on energy saving and living in a very low-energy (passive) house (described in the Chapter 4.3 "Presenting and evaluation solutions"). Furthermore a questionnaire was conducted in the event to gather background information of current indoor conditions in the apartments and the need for improved communication, as described in Chapter 4.1 "Understanding people and issues".

Interviews

Short interviews with residents to ask their ideas and views for temporary use of vacant space

As part of the A-ULL3 "Vacant Space" and as a complement to the workshop tour (see above), a large number of residents in Alby were interviewed with the aim to generate ideas and collect suggestions for a temporary use of the empty space. The short interviews (face-to-face) were carried out by representatives from the ULL team with residents residing around public places in Alby (such as the square and park) in close connection to the targeted vacant space. The approached residents were asked one beforehand prepared question: "What do you think the former Alby school ground should be used for?" In total 242 residents in Alby responded to the question, providing an important input about the residents' needs and wishes for the co-creation of temporary uses of the vacant space. The results from the short interviews were also uploaded onto the ULL co-creation website to enable further discussions around the issue.

To use short interviews approaching residents out and about in Alby in connection to the targeted empty space was a successful method in order to reach a large amount of relevant residents, including the residents that usually do not participate in the development of their neighborhood. An open-ended question also allowed the residents to more freely express themselves, enabling a higher degree of participation. However, as the residents responding to the interviews were anonymous it was difficult to give the respondents targeted feedback on how their input was used in the co-creation process. General information was, however, provided via the ULL co-creation website available to all residents and stakeholders.

Idea competitions

Image competition among residents in Alby for light installations

As part of the co-creation within the A-ULL2 "New light on Alby Hill", an image competition on the theme "Our Alby" was organized among Alby residents and stakeholders. The aim was to involve the residents and stakeholders to collect images for the later voting on what to be projected along the pathway as part of the new street-lightning. The theme for the image competition was decided by the ULL team in dialogue with the local municipality representatives and the local Residents' Council. An extensive communication campaign was carried out targeting the residents and other stakeholder to encourage them to submit images through the ULL co-creation website. The communication included a press release to local media, a poster that was put up around Alby, leaflets distributed to all residents on Alby Hill and information on the website of the housing company, municipality and the ULL cocreation website. Targeted information was also sent to all schools, youth clubs and kindergartens in the area and disseminated via municipality networks. The "prize" for submitting images was the possibility of having the image projected along the pathway. In total, 20 images were submitted via the ULL co-creation website, many created by pupils from the local school. Six finalists were selected by a jury for the later voting (see Chapter 4.4).

The image competition was an appreciated method to engage the residents and other stakeholders in the co-creation of the new street lightning. The method allowed for a broad invitation to participate (directed to all residents) where interested residents and other stakeholders could participate on their own terms. Continued information and updates on the progress of the ULL was disseminated via the ULL co-creation website.

4.3 Presenting and evaluating solutions

Workshop

Evaluation of a draft leaflet for the residents of Innova house

During the workshop arranged for the residents of Innova house (described in Chapter 4.2 Generating ideas) in P-ULL1 "Energetic co-operation", the participants were asked also to evaluate a draft of a leaflet that was aimed to provide information about living in a passive-level house and to support decreasing energy consumption. The one-page leaflet was distributed to the participants in the workshop and the usefulness and clarity of the leaflet was discussed. The participants were encouraged to express their opinions about the draft and to suggest improvements or alternative ways to provide support for energy-efficient living. Many good suggestions were received and the leaflet was refined accordingly to them. Only four residents participated in the workshop and thus the evaluation data was scarce. On the other hand, in this small group the participants could probably discuss more freely, justify and reflect on others' comments, and consequently the feedback on the leaflet was explicit and well-grounded.

Field tests

Test-lightning of the new LED technology with resident council

As part of the A-ULL2 "New light on Alby Hill" a field test of the new LED-technology was carried out by a light expert from Botkyrka municipality, representatives from the Residents' Council and a light expert from the College of Arts. The aim was to test LED-technologies from different suppliers on the targeted pathway in order to identify the best technology to be used. During the test lightning, all participants took part in evaluating the different technologies tested and giving suggestions for improvements, both from a local perspective

(representative from Residents' Council) and from an experts point of view (Light experts). Two representatives from the Residents' Council participated in the field test of the new LED-technology together with the two light experts. In total, two field tests were carried out as the result during the first field test was non-satisfactory. The field tests were a good method to involve both experts and residents to improve in a very visual way the quality of the street lightning, especially concerning new LED-technology and ambient light approach.

Activities for the residents in Peltosaari

The activities arranged for the residents as a part of the P-ULL3 "Together more" in Peltosaari were field tests at the same time as they were mini pilots (discussed in Chapter 4.5: Taking action). They worked as demonstrations of new types of activities and new ways of arranging events. At the same time the residents were able to participate in the actual events and the ideas were thus concretized and easier to reflect upon. Collection of feedback was not however implemented with the focus on supporting profound evaluation and gathering of new ideas. See the paragraph Mini pilots/*Pilot activities with and for the residents* in Chapter 4.5 for a more detailed description of the approach applied.

Workshops for the councilmen and municipal officials

The workshops of the P-ULL2 "Sustainable decisions", described in the previous Chapter 4.2: Generating ideas, were simultaneously arranged as a trial of a potential solution for enhancing the collaboration between the councilmen and municipal officials and for supporting decisions on energy-efficient and sustainable investments. Feedback of the workshops was gathered through **questionnaires**, and suggestions for improvements or new solutions were asked for. Thus, the workshops served both purposes: Generating ideas and Presenting and evaluating solutions. The workshops received very positive feedback and were considered useful by the participants. The challenge is to find suitable time for such events, so that both councilmen and officials would participate. The workshop enhanced the discussion and collaboration between the different groups and provided new insights.

It is recommendable to integrate different endeavours requiring participation of the stakeholders into one occasion whenever feasible, in order to decrease the effort and time demanded from the involved participants.

4.4 Participating in decision making

Dialogue meeting

Resident discussion event on increasing attractiveness of Peltosaari area

One objective of the workshop that was arranged for the residents in Peltosaari in the P-ULL3 "Together more" (described in Chapter 4.2) was to receive residents' inputs on the ways to increase attractiveness of the area and to focus the development efforts on the most essential topics. The resident questionnaire in the beginning of the ULL had highlighted the demand for tidying up the area. Based on that background the event focused on improving tidiness and the general appearance of the area. The residents participated actively in the discussions of the event and presented numerous targets for improvements but also suggested ways to enhance the tidiness (Generating ideas). Based on the results from the event, the most salient targets for improvements were identified and consequently improvements were initiated or requests were further passed to responsible actors.

E-voting

Online voting (and QR-code) to choose among residents' submitted images for light installations

In the A-ULL2 "New light on Alby Hill" a voting online (ULL website) and via QR-code was set up with the aim to involve residents and other stakeholders in the decision-making concerning what images to project along the pathway to be uplifted. From the image competition (see Chapter 4.2.), six images were selected as the finalists for the residents to vote on. An online voting was set up on the ULL co-creation website displaying the final six images. A QR-code was also created to enable the residents to vote via mobile phone. To encourage the residents and other stakeholders to vote on their favourite image, a communication campaign was carried out targeting the residents and other stakeholder. The communication materials included a press release to local media, a poster with the QR-code and information on how to vote on the ULL website that was put up around Alby and on information boards in all the residential buildings on Alby Hill, and information was also displayed on the website of the housing company, municipality and the ULL co-creation website. In total around 100 residents voted on their favourite image via the QR-code and the online voting. The two winning images both gave expression to anti-racism messages, to be projected along the pathway on Alby Hill. The winners of the e-voting were presented in connection to an opening-ceremony (on-site) when the images were projected for the first time along the pathway. The uplifting of the pathway and the projected images got substantial attention in local media. The e-voting of the images from the image competition was a successful method to involve the residents in the decision-making of which of the final image would be projected along the pathway. However, the method presumes that most residents have access to a smartphone or/and internet, which might not always be the case.

4.5 Taking action

Mini pilots

Pilot activities with and for the residents

In the P-ULL3 "Together more" several activities were piloted in Peltosaari with the support from the municipality. In some cases the project identified potential organizers of activities, contacted them and offered practical support (like contact persons or materials) and/or cost-free venue for arranging activities. For example the urban gardening activity for the school children, three different kinds of senior gymnastics activities (chair gymnastics, brain gymnastics and neighbourhood walks) and several cultural activities in the area were organized this way. Volunteer residents and employees of the city agreed on collaboration so that the activities could be carried out for several months. In some cases the events were coorganized among the ULL key persons and some other actors in the area. For example the Midsummer festival and the End of summer season were events where the ULL key persons were partly responsible of the actual event arrangements together with the Peltosaari Association and other volunteers. Based on the participation and feedback on the event, either continuation was planned or the activity was ended.

The mini pilots in the ULL differed from the general description of mini pilots (as described in the report by Friedrich et al. 2013) in that the original initiative for them didn't come directly from the citizens. This was because in Peltosaari it turned out to be challenging to engage residents into developing new ideas and experimenting. Nevertheless, mini piloting approach was suitable for Peltosaari where it is difficult to reach new inhabitants for developing activities and decision making, but on the other hand quick visible results from the ULLs were expected. The arranged events worked partly as mini pilots and field tests of the potentially permanent activities but at the same time they were a channel to raise interest of

new people into communal activities and potentially to engage them in future work. Feedback was not systematically gathered from these activities separately since they were in many cases organized by volunteers with no interest in additional tasks and there was no registration for the events and thus no contact information of the participants. However, the close cooperation of the project with the existing groups in the area and weekly presence of the municipality representative at his office in the area allowed informal feedback and development discussions on the events, in addition to recording the number of participants in the events. The decisions of the continuation and further development were based on these observations and feedback. This approach was reasonable in this context but in general this should be considered case by case.

Citizen parliament and Change agents

Participatory methods taken into use in earlier projects in Peltosaari

The methods "Citizen Parliament" and "Change agents" were not utilised in the activities directly related to the Urban Living Labs in this study. However, Peltosaari Parliament and Energy experts at Kotikulma rental houses are results of earlier development project where similar approaches have been trialled with. The Peltosaari Parliament comprises of voluntary residents (not elected) and representatives of the city. The parliament doesn't have a position in decision making but it is rather a forum for communication between the municipality and the residents. For example, upcoming activities are planned among the group and feedback and identified needs are discussed. The operation of the ongoing Peltosaari Parliament was started in 2011. The Energy expert activity in Peltosaari was launched in 2011 (Väkevä-Harjula, 2013). A number of active residents from the housing companies in Peltosaari participated in the training organized by the current development project and they formed a core group of Energy experts. The Energy experts followed the energy consumption, advised other residents, suggested improvements and informed about the energy saving activities in their own housing company. Energy expert-activities have gradually faded but reactivation of the operation was discussed as one alternative in P-ULL1 "Energetic co-operation". It was however decided that the objectives and means for energy savings by residents first need to be clearly identified based on more detailed measurements of the energy consumption.

4.6 Summary

Table 2. Methods used in the Urban Living Labs of the project

Method	A-ULL1	A-ULL2	A-ULL3	P-ULL1	P-ULL2	P-ULL3
Interviews						
Observation						
Questionnaires						
Focus groups						
Workshops						
Idea competition						
Field test						
Dialogue meeting						
Voting						
Citizen parliament						
Mini pilots						
Change agents						

Explanations to the annotations in the table above

_	Explanations to the dimotations in the doore				
	face-to-face methods for participation or "live" trials				
		online methods for participation			
		methods have been introduced already earlier in the area			
ĺ		Owela was used			

5 CONCLUSIONS

The emphasis on the participatory activities in the Urban Living Labs of this study was on "Understanding people and issues" and "Generating ideas" which is reflected by the selected methods. The methods that were most used for involving stakeholders in the ULL activities of this study were interviews, questionnaires and workshops (face-to-face). This was due to the characteristics of the planned activities and the target groups to be engaged but most likely was also partly a result of the familiarity of these methods (both for facilitators and participants). Recruiting participants into the activities required a lot of effort, but nevertheless, many times the attendance was still low. ULLs compete of people's time together with numerous other alternatives, and thus motivational aspects and new alternative methods to allow participation need to be considered. Especially youth and families with young children were difficult to reach in these ULLs.

Nevertheless, the expectations of the outcome of the participatory methods were in most cases met. Even when the number of participants was smaller than aimed at, it usually turned out that the result was sufficient, often even very good. However, in cases where representativeness is essential for goals of the work, recruitment of participants may become a significant challenge.

A drawback of the traditional methods (e.g. workshops, interviews) is that they are quite laborious to set up. Therefore it was reasonable to apply several methods in parallel whenever possible. For example questionnaires, workshops for generating ideas and dialogue meetings for evaluating solutions were conducted during one physical meeting.

New methods and approaches should be further developed, explored and trialled with but that is impeded by practical constraints: There's less risks in utilising methods that a facilitator has earlier experience on and it is easier to estimate needed resources. Also, participants are often more comfortable to participate in methods that are already familiar to them. If a new method fails when participants have been recruited, the chance for involving them again may be lost.

When planning participatory activities and selecting methods it needs to be kept in mind that the activities should allow true participation and contribution. It needs to be ensured that participants' inputs can be utilised in the development work and that the participants will be able to get feedback of how the development work has progressed. This is a key element in making the participation rewarding.

6 REFERENCES

Friedrich Pirjo, Karlsson Anja, Federley Maija, 2013: Report 2.1 Boundary conditions for successful Urban Living Labs. SubUrbanLab project report. Available: http://suburbanlab.eu/wp-

 $\underline{content/uploads/2013/10/SubUrbanLab_ULL_Boundary_Conditions_public_updated-\underline{Jan14.pdf}$

JPI Urban Europe, 2015. Strategic Research & Innovation Agenda. http://jpi-urbaneurope.eu/downloads/jpi-sria-def-pdf/ [accessed 21.12.2015]

Karlsson Anja, Federley Maija, Holopainen Riikka, Seitsonen Ilari, 2016: Report 3.3 Establishment and implementation of Urban Living Labs in Alby and Peltosaari. SubUrbanLab project report. Available: http://suburbanlab.eu/wp-content/uploads/2013/10/SubUrbanLab Establishment-and-implementation-of-Urban-Living-Labs public-report-2016.pdf

Karlsson Anja, Seitsonen Ilari, Thörn Philip, Federley Maija, Holopainen Riikka, Sepponen Mari, 2015: Report 3.1 & 3.2 Selection of Urban Living Labs in Alby and Peltosaari. SubUrbanLab project report. Available: http://suburbanlab.eu/wp-content/uploads/2013/10/SubUrbanLab Selection-of-ULL-in-Alby-and-Peltosaari public.pdf

Väkevä-Harjula, Irene (ed.), 2013: Riihimäen Peltosaaren asuinalueen kokonaisvaltainen uudistaminen. Asumisen rahoitus- ja kehittämiskeskuksen raportteja 4, 108 p. http://hdl.handle.net/10138/41561 [accessed 11.2.2016]