

\*\*\* \* \* \* \*\*\*

Project number: 7123420



# LEARNING LOOPS IN THE PUBLIC REALM

WP5. Learning Living Lab - Brussels

T5.4. Implementation of measures and monitoring

# Deliverable D5.4

# Brussels Looper Living Lab evaluation report including learning outcomes and policy transfer

Version: 1.0

Date: 6 October 2020

**Responsible partner:** Vrije Universiteit Brussel – Mobility, Logistics, and Automotive Technologies Research Centre (VUB-MOBI)

**Authors:** Florence Lepoudre (BRAL), Jesse Pappers (VUB-MOBI), Sara Tori (VUB-MOBI), Imre Keserü (VUB-MOBI), Cathy Macharis (VUB-MOBI)

The project is supported by the Brussels Capital Region – Innoviris (Belgium), Ministero dell'Istruzione dell'Università e della Ricerca (MIUR) (Italy), the Economic and Social Research Council (UK) and the European Union.







#### PUBLISHABLE SUMMARY

The Looper Living Lab in Brussels was located in the municipality of Schaerbeek and worked on the issue of traffic safety. Looper implemented two loops of the Looper co-creation process, aimed at solving issues related to traffic safety. During the process, various different stakeholders were involved, to get to the best possible solutions for the issue at hand.

The Looper Living lab completed a first full loop and reached the implementation stage of a second loop. The first loop, situated in the Helmet neighbourhood, resulted in a data campaign to collect data on traffic safety, and included a survey about the mobility preferences of residents, a geotagging application through which citizens could identify traffic safety hotspots, and pop-up field research to count traffic and measure the speed of cars. The data collection was quite successful and showed that small vehicles such as passenger cars and pedestrians account for most traffic in the area; large vehicles and cyclists are only a minority. It further showed that one-third of all counted vehicles was driving over the 30 km/h speed limit. During the co-design phase, over 40 ideas were submitted to help solve the issue, and five were subjected to a MAMCA for evaluation. In the end, it was decided to implement an awareness campaign about the presence of children on the streets, in the form of a mandala at an intersection. We monitored the impact of this installation on traffic speeds and established that it did not result in decreased speed.

For the second loop, Looper joined an existing initiative by the Schaerbeek municipality to implement a school street in the Dailly neighbourhood. Part of the reason for this change of location and focus was that a citizens' organisation aimed at improving traffic safety had just been founded in the municipality. Citizens seemed to prefer to deal with the issue of traffic safety within this organisation rather than with an external project such as Looper. Furthermore, the school street initiative offered Looper the possibility to help intervene in a concrete manner in an existing initiative. Before implementation, we made sure we got to know the parents and residents by talking to them on the streets. Then, the codesign and implementation of the school street were intertwined during a testing phase for a future permanent implementation of the school street. This phase was planned for a three-month test period but was stopped early because of the closing of schools due to the outbreak of COVID-19. Joining an existing initiative allowed Looper to keep the problem identification phase short, which was one of the main takeaways from the first loop, as some citizens stopped being motivated due to the time it took.

Overall, it can be stated that the Brussels Looper Living Lab successfully implemented a co-creation process, and that this process resulted in the following key learnings.

First, it is important to keep the co-creation process flexible. As was seen in loop 1, the problem identification phase lasted too long for some participants. This resulted in a feeling of frustration among some participants because the issue of traffic safety was obvious to them. It is therefore important to listen to participants and adapt the process depending on their needs.

Second, it is important to have a level playing field and an open knowledge exchange among participants, to help understand each other's viewpoints. In loop 1, citizens were sometimes frustrated with the timeline imagined by the policymakers to implement the proposed solutions, but participants needed to understand that there are procedures that policymakers need to respect before being able to implement solutions. It is also important to favour open discussions among the various groups of stakeholders, as this leads to knowledge exchange between the stakeholders.

Lastly, it can be useful to have a local anchor in the living lab, like an NGO or business, that is already trusted by the participants. This can help bridge the gap between organisers and participants and can lessen the feeling of having an external party coming into the neighbourhood. It can also help reach groups that are still do not have an interest in the topic. This was the case in loop 2, as the initiative was started and fully supported by the Schaerbeek municipality and was implemented with the help of a primary school.

Overall, it can be said that learning took place at different levels and for different stakeholders, which helped develop an inclusive process based on knowledge sharing.

# DOCUMENT CHANGE RECORD

| Version | Date       | Status                              | Author  | Description                 |
|---------|------------|-------------------------------------|---|-----------------------------|
| 0.1     | 03/07/2020 | Draft                               | Florence Lepoudre   | Input BRAL                  |
| 0.2     | 10/08/2020 | Draft for review                    | Jesse Pappers, Sara Tori,<br>Imre Keserü, Cathy<br>Macharis | Input VUB-MOBI              |
| 0.3     | 16/09/2020 | Incorporation of comments reviewers | Jesse Pappers, Sara Tori,<br>Imre Keserü, Cathy<br>Macharis | Incorporation comments IUAV |
| 1.0     | 06/10/2020 | Final version                       | Jesse Pappers, Sara Tori,<br>Imre Keserü, Cathy<br>Macharis |                             |

# TABLE OF CONTENTS

| <b>PUBL</b> | LISHABLE SUMMARY                        | 2  |
|-------------|---|----|
| DOC         | UMENT CHANGE RECORD                     | 3  |
|             | E OF CONTENTS                           |    |
| LIST        | OF TABLES                               | 5  |
| 1.          | INTRODUCTION                            | 6  |
| 1.1.        | Objective of D5.4                       | ε  |
| 1.2.        | Related deliverables                    | 6  |
| 2.          | EVALUATION                              |    |
| 2.1.        | Looper Living Lab activities evaluation | 7  |
| 2.2.        | Online platform                         | 15 |
| 2.3.        | Community learning                      | 17 |
| 2.4.        | Policy learning                         |    |
| 2.5.        | Process evaluation                      | 21 |
| 2.6.        | Reflect on this evaluation process      | 24 |
| 3.          | ACKNOWLEDGEMENTS                        | 25 |

# LIST OF TABLES

| Table 1 First loop event log             |    |
|--|----|
| Table 2 Second loop event log            | 8  |
| Table 3 First loop learning at workshops |    |
| Table 4 First loop intervention log      | 12 |
| Table 5 Second loop intervention log     | 12 |
| Table 6 Street drawing impact assessment | 13 |
| Table 7 School street impact assessment  | 13 |
| Table 8 Data visualisation dashboard     | 15 |
| Table 9 Co-design tool                   | 16 |
| Table 10 Community learning              | 17 |
| Table 11 Policy learning                 | 19 |
| Table 12 Whole lab evaluation            | 2  |

### 1. INTRODUCTION

### 1.1.Objective of D5.4

The objective of this deliverable is to evaluate the Brussels Looper Living Lab and to give an overview of the learnings that took place during nearly three years of co-creation as well as to derive policy recommendations form the experience of the living lab.

#### 1.2.Related deliverables

This document applies the evaluation framework described in Deliverable 4.2 Framework for Monitoring and Evaluation of the Looper Living Labs. Deliverable 5.4 is the final deliverable in work package 5 and builds on the previous deliverables in this work package that describe the different phases of co-creation in the Brussels Living Lab (D5.1, D5.2a, D5.2b, D5.3a, D5.3b). Similar deliverables can be found on the Looper Living Labs in Verona and Manchester in work packages 6 and 7, respectively.

#### 2. EVALUATION

#### 2.1.Looper Living Lab activities evaluation

This section provides a first lookout on the activities done by the Brussels Looper Living Lab (LLL).

#### 2.1.1. Brussels Looper Living Lab logs

The following tables – based on the templates from D4.2 evaluation summary – cover both the activities done with participants of the LLL, but also the activities done by organisers to set up the lab and to allow the implementation of the interventions.

The "Event log" table shows all the different activities undertaken during the Brussels Living Lab experience, from the set up to the organisation needed for the long-term implementation for the second loop. The "Workshops' learning" gives a summary of what participants and stakeholders learnt during each of the workshops undertaken by the Looper Living Lab.

The "Intervention log" table explains which ideas were chosen for implementation, and where/how to implement it. The "Impact assessment template" table shows what criticalities were to be solved with each intervention.

#### **Event log**

Table 1 First loop event log

|                                 | FIRST LOOP EVENT LOG |         |  |                     |              |  |
|---------------------------------|----------------------|---------|--|---------------------|--------------|--|
|                                 |                      |         |  | No. of participants |              |  |
| Title and purpose<br>of event   | Workshop<br>#        | Date    | Content  | Citizens            | Policymakers | Key Results  |
| Kick-off                        | 1                    | 13/2/18 | Introduce project  | 17                  | 1            | Introduction of project to the public  |
| Brainstorm<br>outreach          | 2                    | 25/2/18 | Only 2 participants showed up, so a brainstorm session was held to improve turnout | 2                   | 0            | People to contact to increase turnout  |
| What data will<br>be collected? | 3                    | 9/5/18  | Decide on what data citizens<br>would like to collect on traffic<br>safety         | 8                   | 0            | Data on traffic<br>safety, traffic<br>volume, and<br>origin-<br>destination will<br>be collected |
| How and when to collect data?   | 4                    | 7/6/18  | Make a planning on how and when to collect data on traffic safety.                 | 6                   | 0            | Data collection<br>will take place<br>in the second<br>week of<br>September                      |

|  | FIRST LOOP EVENT LOG |  |   |                     |              |  |
|--|----------------------|--|---|---------------------|--------------|--|
|  |                      |  |   | No. of participants |              |  |
| Title and purpose<br>of event          | Workshop<br>#        | Date                                   | Content   | Citizens            | Policymakers | Key Results  |
| Collect data                           | 5 – 8                | 4/9/18<br>6/9/18<br>11/9/18<br>12/9/18 | Collect data on traffic speed,<br>traffic volume, and origin-<br>destination of passers-by. | 15                  | 0            | One-third of<br>cars drive to<br>fast; cyclists<br>avoid busy<br>roads   |
| Selecting 5<br>ideas for<br>evaluation | 9                    | 16/10/18                               | Discuss the ideas submitted to the idea platform and chose which 5 will be evaluated.       | 4                   | 1            | Selection of<br>five ideas for<br>evaluation   |
| Selection of solution                  | 10                   | 15/11/18                               | Select one solution that will be implemented.   | 2                   | 0            | An awareness campaign for the presence for children in the streets will be set up in 2019                      |
| Implementation of solution             | 11                   | 29/6/19                                | Implement the selected solution.  | 100+                | 1            | Neighbourhood<br>children made<br>a big street<br>drawing to<br>make road<br>users aware of<br>their presence. |

Table 2 Second loop event log

|                               | SECOND LOOP EVENT LOG        |               |                              |   |                     |             |                                  |
|-------------------------------|------------------------------|---------------|------------------------------|---|---------------------|-------------|----------------------------------|
|                               |                              | Workshop<br># | Date                         | Content   | No. of participants |             |                                  |
| Title and purpose<br>of event | Citizens                     |               |                              |   | Policymakers        | Key Results |                                  |
|                               | Interviews with stakeholders | 1             | 6/8/19<br>13/8/19<br>23/8/19 | Meetings with municipality and two principals of elementary schools | 0                   | 1           | Made planning<br>for second loop |

|                                    | SECOND LOOP EVENT LOG |                              |   |                     |              |   |
|------------------------------------|-----------------------|------------------------------|---|---------------------|--------------|---|
|                                    |                       |                              |   | No. of participants |              |   |
| Title and purpose<br>of event      | Workshop<br>#         | Date                         | Content   | Citizens            | Policymakers | Key Results   |
| Info booth                         | 2                     | 5/11/19                      | First information booth for parents                                     | 50                  | 0            | Informed<br>parents about<br>school street                              |
| Info moment                        | 3                     | 19/11/1<br>9                 | Second information moment for parents                                   | 50                  | 0            | Informed parents about school street                                    |
| Outreach<br>parents                | 4                     | 14/1/20<br>27/1/20<br>5/2/20 | Inform parents about school street, surveys and co-design               | 100                 | 0            | Informed<br>parents about<br>school street,<br>survey and co-<br>design |
| Meeting with parents and residents | 5                     | 23/120                       | Inform parents and residents about school street, surveys and co-design | 0                   | 0            | Informed<br>parents about<br>school street,<br>survey and co-<br>design |
| Meeting<br>residents               | 6                     | 6/2/20                       | Inform residents about school<br>street and co-design                   | 10                  | 0            | Informed idents about school street and co-design                       |
| Official opening of school street  | 7                     | 19/2/20                      | First feedback and opening  | 50                  | 1            | Festive<br>opening of<br>school street                                  |

## Learning at workshops

Table 3 First loop learning at workshops

| FIRST LOOP LEARNING AT WOR     | KSHOPS   |
|--------------------------------|--|
| LEARNING TYPE                  | Workshop 1 - Kick-off  |
| information ('know-what'):     | What do we know about traffic safety in the neighbourhood?   |
| Network ('know-who'):          | Who else could become involved in the project?   |
| skills/resources ('know-how'): | N/A  |
| norms/goals ('know-why'):      | Why is traffic safety important?   |
| LEARNING TYPE                  | Workshop 2 - Brainstorm outreach   |
| information ('know-what'):     | N/A  |
| Network ('know-who'):          | Who else could become involved in the project?   |
| skills/resources ('know-how'): | How can we improve communication with citizens and stakeholders about the project?                         |
| norms/goals ('know-why'):      | N/A  |
| LEARNING TYPE                  | Workshop 3 - What data will be collected?  |
| information ('know-what'):     | What mobility related data can be collected?   |
| Network ('know-who'):          | N/A  |
| skills/resources ('know-how'): | How to measure the pressure and number of cars in a street?  |
| norms/goals ('know-why'):      | Less cars = more space for other, 'greener' means of transport to drive safely                             |
| LEARNING TYPE                  | Workshop 4 - How and when to collect data?   |
| information ('know-what'):     | What type of traffic data should be collected? What methodologies and tools exist to collect traffic data? |
| Network ('know-who'):          | Who could become involved in collecting traffic data?  |
| skills/resources ('know-how'): | How can traffic data be collected? How can it be used?   |
| norms/goals ('know-why'):      | N/A  |
| LEARNING TYPE                  | Workshops 5 – 8 – Collect data   |
| information ('know-what'):     | What does the collected traffic data tell us?  |
| Network ('know-who'):          | N/A  |
| skills/resources ('know-how'): | How to measure traffic speed and volume?   |
| norms/goals ('know-why'):      | N/A  |
| LEARNING TYPE                  | Workshop 9 - Selecting 5 ideas for evaluation  |
| information ('know-what'):     | What have other people suggested as solutions?   |
| Network ('know-who'):          | N/A  |
| skills/resources ('know-how'): | How can traffic safety be improved?  |
| norms/goals ('know-why'):      | N/A  |
| LEARNING TYPE                  | Workshop 10 - Selection of solution  |
| information ('know-what'):     | N/A  |
| Network ('know-who'):          | Who needs to be involved to implement an idea?   |
| skills/resources ('know-how'): | How can the impact of a solution be measured?  |
| norms/goals ('know-why'):      | N/A  |

| SECOND LOOP LEARNING AT WORKSHOPS |   |  |  |  |
|-----------------------------------|---|--|--|--|
| LEARNING TYPE                     | Workshop 1 – Interviews with stakeholders   |  |  |  |
| information ('know-what'):        | What is a school street and how could it impact different stakeholders?   |  |  |  |
| Network ('know-who'):             | Who could be impacted by the school street? Should they be involved in the project?   |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 2 – Info booth   |  |  |  |
| information ('know-what'):        | What is a school street?  |  |  |  |
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who will be impacted by the school street? |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 3 – Info moment  |  |  |  |
| information ('know-what'):        | What is a school street?  |  |  |  |
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who will be impacted by the school street? |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 4 – Outreach parents   |  |  |  |
| information ('know-what'):        | What is a school street? How will parents   |  |  |  |
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who will be impacted by the school street? |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 5 – Meeting with parents and residents   |  |  |  |
| information ('know-what'):        | What is a school street?  |  |  |  |
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who will be impacted by the school street? |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 6 – Meeting residents  |  |  |  |
| information ('know-what'):        | What is a school street?  |  |  |  |
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who will be impacted by the school street? |  |  |  |
| skills/resources ('know-how'):    | How can the school street become a positive development for the school and for the neighbourhood?   |  |  |  |
| norms/goals ('know-why'):         | Why could a school street be useful to improve traffic safety?  |  |  |  |
| LEARNING TYPE                     | Workshop 7 – Official opening of school street  |  |  |  |
| information ('know-what'):        | What does a school street look like? What are the first impressions?  |  |  |  |

| SECOND LOOP LEARNING AT WORKSHOPS |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|
| Network ('know-who'):             | Who is involved in setting up the school street? Who could become involved in the school street? Who is impacted by the school street? |  |  |  |  |
| skills/resources ('know-how'):    | How does a school street improve traffic safety?   |  |  |  |  |
| norms/goals ('know-why'):         | Why is traffic safety important?   |  |  |  |  |

### Intervention log

Table 4 First loop intervention log

| FIRST LOOP INTERVENTIONS LOG                       |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| INTERVENTIONS                                      | Street drawing   |  |  |  |  |  |
| What is the intervention?                          | An artist will draw the outlines of a mobility-themed mandala (i.e. a geometric design) on an intersection and children will colour it in during the annual street party.            |  |  |  |  |  |
| Where is it?                                       | In front of the after-school NGO that suggested the idea.  |  |  |  |  |  |
| How large an area does it cover?                   | 8 by 8 meters  |  |  |  |  |  |
| What is the timing and duration of the experiment? | The implementation will take one day. Speed measurements will be done one week before and one week after the implementation.   |  |  |  |  |  |
| What problems does it respond to?                  | Unsafe streets for children.   |  |  |  |  |  |
| How/why was this intervention chosen?              | A local NGO that helps and entertains children after school hours suggested the idea. It was deemed the most feasible idea because no infrastructure works or permits were required. |  |  |  |  |  |
| How much funding is required?                      | A small remuneration for the artist and the costs of the drawing supplies.   |  |  |  |  |  |
| Partner name and role                              | La Gerbe AMO suggested the idea and helped with the implementation.  |  |  |  |  |  |
| Funded/in-kind contribution                        | N/A  |  |  |  |  |  |

Table 5 Second loop intervention log

| SECOND LOOP INTERVENTIONS LOG  |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| INTERVENTIONS School street  |   |  |  |  |  |  |
| What is the intervention?  | A school street, i.e. a temporary closure for motorised traffic of a street in front of an elementary school.   |  |  |  |  |  |
| Where is it? In front of École 10 on Grande Rue au Bois in Schaerbeek. |   |  |  |  |  |  |
| How large an area does it cover?                                       | The length of one block – approximately 200 meters.   |  |  |  |  |  |
| What is the timing and duration of the experiment?                     | Each morning between 08:00 and 08:30 for three months.  |  |  |  |  |  |
| What problems does it respond to?                                      | Unsafe traffic situations during drop-off.  |  |  |  |  |  |
| How/why was this intervention chosen?                                  | The implementation of other school streets in Schaerbeek has not always gone smoothly. The alderwoman wanted guidelines on implementation based on the experience in the Looper Living Lab. |  |  |  |  |  |

| How much funding is required? | None.  |
|-------------------------------|--|
| Partner name and role         | École 10 – the elementary school that initiated the school street.  Schaerbeek – the municipality that supports the implementation of a school street. |
| Funded/in-kind contribution   | N/A.   |

#### Impact assessment template

Table 6 Street drawing impact assessment

| STREET DRAWING (FIRST LOOP) |   |                              |  |                          |
|-----------------------------|---|------------------------------|--|--------------------------|
| INTERVEN-<br>TION           | FUNCTIONAL PROBLEMS/IMPACTS                     | STRATEGIC CHALLENGES/EFFECTS | HOW TO MONITOR -<br>METHODS            | WHO MONITORS -<br>ACTORS |
| Traffic speed and volume    |   |                              |  |                          |
|                             | Improve objective and subjective traffic safety | Improved traffic safety      | Speed measurements using fixed devices | Police                   |

Table 7 School street impact assessment

| SCHOOL STREET (SECOND LOOP) |   |                              |  |  |
|-----------------------------|---|------------------------------|--|--|
| INTERVEN-<br>TION           | FUNCTIONAL PROBLEMS/IMPACTS                     | STRATEGIC CHALLENGES/EFFECTS | HOW TO MONITOR -<br>METHODS  | WHO MONITORS -<br>ACTORS   |
| Traffic speed and volume    |   |                              |  |  |
|                             | Improve objective and subjective traffic safety | Improved traffic safety      | Speed measurements using fixed devices as well as low-cost computers (Telraam) | VIAS (mobility<br>organisation)<br>Citizens (using Telraam<br>devices) |

#### 2.1.2. Learning around tackled issues

The questions hereafter are based on the information from the above tables of section 2.1 and are used to further evaluate and understand the process undertaken in the Brussels Looper Living Lab.

#### How did the problem identification go? Does the problem "frame" fit the problem?

During the first loop, the Looper methodology was followed in detail. We followed the co-creation process as it was described in the project proposal. This process included a relatively long problem identification phase, shared data collection and co-design of solutions with all possible stakeholders. However, the process was very (too) long for citizens (i.e. several months), making it difficult to keep them interested and involved throughout the first loop.

During the second loop, a more concrete and specific issue was chosen. This caused us to apply the Looper methodology in a more flexible fashion, e.g. only briefly touching on problem identification and focusing more on implementation, evaluation and co-design.

#### How did the data gathering go? Is the data robust and complete?

Different stakeholders were involved in every step of the project, but at different levels. The data collection during the first loop was done with and by citizens, making it less reliable from a scientific point of view. Participants were given instructions on how to collect data, but there is always a margin

of error. Furthermore, the collected data was not representative because the data collection window was one week. During the second loop, part of the data collection was outsourced to external consultants who used professional devices. Nevertheless, citizens were also asked to install small traffic counting computers in their house called Telraam<sup>1</sup>.

In the second loop, data was also collected via surveys. Despite our best efforts to get residents and parents to fill in the survey, the response rate was rather low. Pupils of the school were also asked to fill in a survey in class, which resulted in very interesting and detailed data.

#### How did the data visualisation go? Is the analysis suitable and effective?

Residents' perceptions on traffic safety were mapped using the geotagging tool and visualised on the platform. This visualisation was useful to identify places at which solutions could be implemented.

#### How did the problem analysis go? Does the specific problem fit with the "wider problem"?

Due to many traffic accidents, the problem – traffic safety – was an obvious theme of the living lab. This specific problem fits well within the wider problem, which is a (perceived) lack of willingness from the municipality to listen to citizens' demands and solutions.

# How did the co-design go? Are there ways of learning about both specific problems and wider problems, in order to make better decisions?

Co-design is a useful method to receive input from citizens and to involve them in a project. However, citizens' co-designed ideas need to be analysed by experts or government representatives before they can be implemented.

#### How did the evaluation go? Are there ways of improving group decision-making?

The evaluation using MAMCA helped to understand and visualize the input from citizens and stakeholders. In an ideal scenario, all stakeholders would participate in the MAMCA as well as the consensus-making workshop. One stakeholder – the police – could not participate in our MAMCA, and several stakeholders did not attend the consensus-making workshop.

# How did the solution implementation go? Are there ways of learning how to plan better? Are there ways of learning (in the provider organization or supplier) on how to manage this better?

Political support is needed to implement a solution. When working towards a concrete intervention, the municipality did not always have time or resources to follow up. Furthermore, the official procedures before a solution is implemented (i.e. discussions with other departments, receiving political green light) takes more time than the residents would like to see.

# How did the monitoring and feedback go? Are there channels for feedback, to improve the process in the future?

The impact of the street drawing was measured using devices from the police department. Although we could analyse the data, we did not receive authorisation from the police to communicate the results to the public as this requires political approval.

-

<sup>&</sup>lt;sup>1</sup> www.telraam.net

### 2.2.Online platform

The "online platform" section includes all tools and information that can be found on the local website of the Brussels Looper Living Lab (<a href="https://brussels.looperproject.eu/">https://brussels.looperproject.eu/</a> for loop 1 and <a href="https://bxl.looperproject.eu">https://bxl.looperproject.eu</a> for loop 2) i.e. data visualisation dashboard, co-design tool, news and events section for dissemination.

#### 2.2.1. Data analytics on the online platform

The following tables – based on the templates from D4.2 evaluation summary – show some data analytics on how the visualisation dashboard and co-design tool were used by participants.

The "Data visualisation dashboard" and "Co-design tool" tables show data about the online tools embedded in the online platform e.g. number of accesses, usability, triggered learning processes.

#### Data visualisation dashboard

Table 8 Data visualisation dashboard

| HAS THE PLATFORM BEEN USED BY ORGANISERS? |  |  |  |  |
|---|--|--|--|--|
| Comments                                  | The data visualisation was linked to the geotagging tool that was used to collect citizens' opinions on traffic (un)safety in their neighbourhood. The platform also showed the speed measurements done by citizens. |  |  |  |
| N° of data layers                         | 1: input from citizens on traffic safety 2: traffic speeds measured by citizens  |  |  |  |
| HAS THE DASHBOARD BEEN USED               | BY USERS?  |  |  |  |
| Comments (by organisers)                  | Dashboard was used during the first loop but not used during the second loop.  |  |  |  |
| N° of accesses                            | 271  |  |  |  |
| Its usage during living labs sessions?    | We did not use the platform during sessions.   |  |  |  |
| USABILITY                                 |  |  |  |  |
| Comments by (organisers)                  | Making a website user friendly is too important to be left in the hands of academics.  |  |  |  |
| User feedbacks                            | We have not received feedback on the platform.   |  |  |  |
| DOES THE DASHBOARD TRIGGEREI              | D LEARNING PROCESSES?  |  |  |  |
| information ('know-what')                 | What are citizens' perceptions on traffic safety? What does the collected data show?   |  |  |  |
| networks ('know-who')                     | The dashboard did not allow interaction between the different stakeholders, as it only serves as a visualisation.  |  |  |  |
| skills/resources ('know-how')             | Participants learned how to read and interpret the data that was collected, and how to use a data visualization dashboard.   |  |  |  |
| norms/goals ('know-why')                  | N/A  |  |  |  |

#### Co-design tool

Table 9 Co-design tool

| HAS BEEN THE CO-DESIGN TOOL USED BY USERS? |  |  |  |  |
|--|--|--|--|--|
| Comments (by organisers)                   | The same tool (NextHamburg) was used on the website of the first and second loops. Some data was lost while migrating this tool from one website to the other. |  |  |  |
| N° of accesses                             | 285  |  |  |  |
| N° of users posting ideas                  | 13   |  |  |  |
| N° of posted ideas                         | 43 (first loop)<br>0 (second loop)   |  |  |  |
| Its usage during living labs sessions?     | The co-design tool was shown during the workshops.   |  |  |  |
| USABILITY                                  |  |  |  |  |
| Comments by (organisers)                   | The tool served its purpose as a repository of ideas.  |  |  |  |
| User feedbacks                             | We did not receive any comments from participants.   |  |  |  |
| DOES THE CO-DESIGN TOOL TRIGGE             | FRED LEARNING PROCESSES?   |  |  |  |
| information ('know-what')                  | During the first loop, the tool helped participants vocalize their own ideas and understand other participants' ideas.   |  |  |  |
| networks ('know-who')                      | During the first loop, the tool helped spark discussion around what organizations have similar purposes and ideas.   |  |  |  |
| skills/resources ('know-how')              | During the first loop, the participants learned how to use an online co-design tool.   |  |  |  |
| norms/goals ('know-why')                   | N/A  |  |  |  |

#### 2.2.2. Learning about the online platform

On the basis of the above tables it was possible to obtain some extra information to answer the following questions that allows a wider evaluation of the online platform.

#### Did the technical platform work as intended?

Yes, citizens used it to suggest ideas about improving traffic safety.

#### Were there problems or gaps?

There were no online discussions on proposed solutions.

#### Did it produce negative side-effects?

Not that we are aware of.

#### Did it produce positive spin-offs?

Not that we are aware of.

#### Was there an effective offline/social platform?

No.

#### What are the implications for others setting up similar platforms?

Creating an online discussion might be even more difficult than creating an offline discussion.

### 2.3. Community learning

The learning loop taking place during the process can be divided in community and policy loop, and each can further differentiate between a functional and a strategic loop. The following table - based on the templates from D4.2 evaluation summary - summarises the functional and strategic learning that took place at community level.

On the basis of the following table it was then possible to gather information to answer the questions about the functional and strategic loops in sections 2.3.1 and 2.3.2.

Table 10 Community learning

| LEARNING TYPE                            | TYPICAL QUESTIONS to be addressed  | FUNCTIONAL PROBLEMS/IMPACTS  | STRATEGIC CHALLENGES/EFFECTS   | LEARNING EVALUATION METHODS  |
|--|--|--|--|------------------------------|
| information<br>('know-what'):            | did the residents learn<br>generally about access to<br>technical data and<br>analytical techniques?             | The participants learned how to collect traffic monitoring data.   | Participants gained basic knowledge about mobility and traffic safety.               | Discussion with participants |
| networks<br>('know-who'):                | did they learn generally<br>who to call or ask advice,<br>or to lobby for similar<br>problems?                   | Participants learned about citizen organisations that have their same purpose.   | Participants gained knowledge about the actors involved.                             | Discussion with participants |
| skills and<br>resources<br>('know-how'): | did they learn ways of managing information, presenting the results, managing professionals, project management? | Participants learned about traffic monitoring techniques.  | Participants learned<br>general skills for<br>information and project<br>management  | Discussion with participants |
| norms/goals<br>('know-why'):             | did they learn about the wider goals of community capacity and empowerment?                                      | The participants learned about the goals to be reached when it comes to traffic safety.  | Participants better understood their role and capacity as citizens in the community. | Discussion with participants |
| GENERAL<br>ISSUES                        | Are the results in line with what we expected? Any ideas for improvement? Etc                                    | The results are in line with the expectations, as the participants engaged in open ad constructive dialogues. The participants better understood how traffic monitoring works and why it is necessary. |  |                              |

#### 2.3.1. Functional loop

#### Information (know-what)

Local stakeholders learned about how to gather and access traffic monitoring data, which will have long-term positive effects. It will allow them to more easily trust official data as well.

#### Networks (know-who)

Participants learned about the citizen organizations to contact to address issues with regards to traffic monitoring.

#### Skills and resources (know-how)

Participants learned how to correctly gather and interpret traffic monitoring data.

#### Norms/goals (know-why)

Participants learned about the goals to be reached and how to set targets and make decision for feasible transformations within their community.

#### 2.3.2. Strategic loop

#### Information (know-what)

Participants learned about mobility and traffic safety in general, and how to understand data around those issues.

#### Networks (know-who)

Participants learned about the importance of networking outside their own circle, with different stakeholders.

#### Skills and resources (know-how)

Participants learned general skills for information and project management.

#### Norms/goals (know-why)

N/A

### 2.4.Policy learning

The following table – based on the templates from D4.2 evaluation summary – summarises the functional and strategic learning that took place at policy level.

On the basis of the following table it was then possible to gather information to answer the questions about the functional and strategic loops in sections 2.4.1 and 2.4.2.

Table 11 Policy learning

| LEARNING TYPE                            | TYPICAL QUESTIONS to be addressed   | FUNCTIONAL PROBLEMS/IMPACTS  | STRATEGIC CHALLENGES/EFFECTS                              | LEARNING EVALUATION METHODS  |
|--|---|--|---|------------------------------|
| information<br>('know-what'):            | did the policymakers learn<br>generally about improving<br>access to technical data<br>and analytical techniques? | Policymakers learned<br>what type of data citizens<br>were interested in.  | Important to make the access to data easier.              | Discussion with participants |
| networks<br>('know-who'):                | did they learn generally who to involve in the community or other stakeholders in the local environment?          | There was positive contact and exchange between the policymakers and the citizens.   | Policymakers gained knowledge about the actors involved.  | Discussion with participants |
| skills and<br>resources<br>('know-how'): | ways of managing participation, building it into policy development and co-design of interventions?               | Policymakers saw the importance of codesigning with citizens.  | Importance of maintaining an open dialogue with citizens. | Discussion with participants |
| norms/goals<br>('know-why'):             | did they learn about the general goals of community capacity and local empowerment?                               | N/A  | N/A   | N/A                          |
| GENERAL<br>ISSUES                        | Are the results in line with what we expected? Any ideas for improvement? Etc                                     | The results are in line with the expectations. The open discussion between policymakers and citizens led to a mutual understanding, and to an understanding by policymakers of what citizens would want for a more liveable urban area. This process could be strengthened even further if there was a more active involvement by the policymakers in the discussions and the meeting. |   |                              |

#### 2.4.1. Functional loop

#### Information (know-what)

Policymakers learned what type of data citizens are interested in, and therefore understood the local problems and the neighbourhood a bit better.

#### Networks (know-who)

Policymakers learned who the people to contact are for the stakeholder groups, which helps in developing a stable relationship with citizens.

#### Skills and resources (know-how)

Policymakers understood the importance of co-design and understood how to approach citizens for a co-design process.

#### Norms/goals (know-why)

N/A

#### 2.4.2. Strategic loop

#### Information (know-what)

Policymakers understood the importance of making data easily accessible to citizens.

#### Networks (know-who)

Policymakers gained knowledge about the actors involved.

#### Skills and resources (know-how)

Policymakers understood the importance of an open dialogue with citizens, as a transparent process leads to more understanding from citizens.

#### Norms/goals (know-why)

N/A

### 2.5. Process evaluation

#### 2.5.1. Whole lab evaluation

The following table – based on the templates from D4.2 evaluation summary – allows a whole lab evaluation based on the "6-P" main components for each Living Lab (see deliverable D8.1 for further explanation on the "6-P" components).

Table 12 Whole lab evaluation

|                | FORMATIVE EVALUATION   | SUMMATIVE EVALUATION   |
|----------------|--|--|
| 4a) PEOPLE     | Is there evidence of social learning in and around the community or in and around the policy system?   | (outcomes and results)  How can the overall results contribute to community learning and development?  Were the people as a whole engaged and mobilized?  Could this be done better?  How did we involve (or not) hard-to-reach groups?  |
|                | There is no hard evidence to back up claims that Looper has resulted in social learning. The political system seems to not have taken co-creation into their daily workings.   | The experiences in the Brussels Living Lab show that real engagement from the municipality is necessary for co-creation processes to have impacts. The implementation in both loops was frustrated by the lack of engagement from the decision makers.  Some people were engaged and mobilised, but not for the duration of the project. Participation was mostly limited to joining a few workshops. Sustainable participation needs a local anchor, which we only had in the second loop.  Reaching the hard-to-reach was not a priority because it was already quite difficult to reach those who usually are not hard to reach. Nevertheless, the cooperation with a primary school with a diverse student body during the second loop did increase engagement with the "hard-to-reach". |
| 4b) PRIORITIES | Which of the initial priorities/goals were worked on, fulfilled or achieved? Is there evidence of learning on the nature of the priorities as a whole, and possible responses?   | How can citizen monitoring combine with deliberation, to identify and understand problems in the urban environment?  How can citizen monitoring combine with deliberation, to assist in co-design for solutions in the urban environment?  |
|                | The goal of the Brussels Living Lab was to improve traffic safety. Problems with traffic safety have very diverse causes and are persistent. Although traffic safety does not seem to have changed, the project did contribute to the debate on traffic safety.  | Citizen monitoring (i.e. data collection) is a great way to involve people in a project as it allows them to have a practical contribution. The usability and reliability of the collected data depends on the goal of the data collection.  Analysing the collected data and communicating it in an easy to understand way allows citizens to improve their understanding. This can then lead to citizens suggest solutions.  |
| 4c) PLACE      | Did the place as a whole benefit from the lab? Was there social learning on the place's problems/opportunities?  | What are the implications for place-based labs, and area-based policies in general?  |
|                | The living lab contributed to the debate on traffic safety and how citizens can be included in finding solutions. Whether our presence on the ground has had a positive effect on the neighbourhoods is impossible to say, but it did contribute to social learning on the problem (traffic safety) as well as the possible solutions. | Place-based labs should have a strong, physical presence on the ground. Without this presence, it is difficult to connect with citizens and stakeholders. In the Brussels Living Lab, we were mostly seen as outsiders.  The scale of a lab also matters. In the first loop, we focused on a whole neighbourhood. This might have been too big of a scale when looking at the co-  |

|              | FORMATIVE EVALUATION  | SUMMATIVE EVALUATION   |
|--------------|---|--|
|              | (processes and methods)   | (outcomes and results)   |
|              |   | designed solutions, which were often very local and small in scale. In the second loop, the location of the living lab was very precise: the street in front of the elementary school.  How can citizen monitoring and co-design enhance the   |
| 4d) PLATFORM | Did the technical platform work as intended? Were there problems or gaps? Did it produce negative side-effects or positive spin-offs? Was there an effective offline/social platform?   | use of MCA and MAMCA?  How can MCA and MAMCA enhance citizen monitoring and co-design?  How does data visualization and analysis enhance citizen co-design?  |
|              | The online platform mostly served as a repository of all the actions taken in the living lab. The online co-design tool was used by citizens, but there was no online discussion.  Having an online place where people can find information about and participate in the living lab is important. However, online participation complements rather than replaces offline participation. | Co-design is creative and loosely structured whereas evaluation using MAMCA is rather rigid. Nevertheless, combining co-creation and MAMCA was found to have some positive effects. For example, co-creation increases the opportunities for citizen engagement in the evaluation of the co-designed solutions. Citizens were also found to have valuable knowledge on the problems in their neighbourhood and ideas for possible solutions as well as who is impacted by the problem and who will be impacted by alternative solutions. |
| 4e) POLICIES |   | How can policy learning enhance citizen co-design? How can policy benefit from citizen monitoring design? How can quantitative data link with qualitative evidence, to enhance co-design and implementation?   |
|              |   | Having citizens collect data can be useful for governments to engage citizens as well as to develop (citizen) science-based policies.  Qualitative and quantitative data are complimentary. Qualitative data (e.g. sentiments) are useful to see what citizens' opinions are on a certain problem. Quantitative data (e.g. speeds, traffic volumes) are useful to proof a problem exists (or not).   |
| 4f) PROCESS  | How did the setting up process work? Could it be improved?  | Evaluation process: how far it worked or not; how it could be improved; significance for other similar projects.   |
|              | Setting up the lab was done by setting up a website and by talking to (formal) stakeholders.  Setting up the living lab could have been improved by engaging more with local initiatives and actors.  This would have probably reduced the efforts needed to engage people to participate in the living lab.  | The continuous evaluation using the logbooks was sometimes cumbersome but has proven useful. Perhaps adding benchmarks (perhaps even codesigned by participants) could make it easier to see whether the living lab lived up to the expectations of participants.  |

#### 2.5.2. Evaluating the wider community and policy learning

The following questions allow to have a better understanding on the results of the learning that took place at different levels in the Brussels Looper Living Lab.

#### Did the capacity building process work? Was it open and inclusive for all social groups?

As researchers and project managers, we arrived in the neighbourhood without knowing the area or the actors. We were strangers for and to the neighbourhood, which was one of the limiting factors for a quick take-off during the first stages. We were discovering things and trying to grasp a local context while piloting the project. This was a difficult balance to keep.

The municipality of Schaerbeek had very limited experience with public participation and co-creation as it was done in the living lab. The experiences in the lab may have contributed to their understanding

of public participation and co-creation but it is difficult to say whether it has increased their willingness to use public participation and co-creation in the future.

# Did the co-design process work effectively? Were all viable options on the table? Was there a robust process of decision making?

During the first loop, the attendance during the co-design workshops was low. The explanation might be related to participation fatigue. Furthermore, other initiatives started and/or were active in Schaerbeek, and all of them focused on similar problems and often drawing a similar audience (middle-class, educated, white cyclists). In future projects, we suggest working with existing actors instead of creating a new group from scratch. Local actors already have communication channels and well-known events. It will be experienced as less intrusive for the neighbourhood if the project incorporates these rather than creating new ones.

While the participants that did join the workshops, we were able to follow all the steps of the co-creation process. The unfeasibility of some of the suggested ideas was explained with the help of external experts and representatives of the municipality.

The evaluation of the co-designed ideas using MCA and MAMCA provided a basis for discussion about which idea(s) should be implemented. The decision-making process could be better described as pragmatic than robust: citizens and stakeholders who attended the decision-making workshop had the final say.

# What is the evidence of community empowerment? Can it be assessed in activities, relations, communications, positive actions?

Community empowerment is difficult to measure. While it can be assumed that participants learned something about traffic safety and decision-making, it is difficult – if not impossible – to assess whether participation in the living lab has resulted in participants taking action outside the project.

# Do the policy and service providers have the resources to address the problem? Or can they learn how to gather and mobilize the resources?

The problem tackled in the Brussels living labs was one of traffic safety. In the whole city, and especially in Schaerbeek, this issue is already known to policymakers, and possible solutions are long term ones. The solutions often require large investments, such as redesigning roads.

The policymakers are also divided over which measures address the problem of traffic safety (and which measures should be funded). This is exemplified in the example of the school streets: the implementation would go a lot smoother if the municipality would use the street workers it currently has to manage the barriers instead of relying on parents or neighbours to do this. The resources (i.e. the street workers) are already there, it is the allocation of resources that frustrates the implementation of the school street.

# Is policy development and innovation working effectively? Is it (as far as possible) open, transparent, inclusive, entrepreneurial and creative?

The Brussels living lab has not resulted in policy development or innovation. Political compromises and bureaucratic procedures cannot be easily replaced by 'open' and 'inclusive' policy development. Whereas the aim of the second loop was to provide the municipality guidelines on how to set up and maintain school streets, these guidelines could not be created due to the municipality's withdrawal of support for the school street.

### 2.6. Reflect on this evaluation process

#### How did you experience this evaluation process?

This evaluation feels a bit superfluous as many of the answers given in this document were also given in other deliverables. Nevertheless, it makes sense to have this evaluation in one document instead of spread out over several ones.

#### Was the evaluation process effective and useful?

The evaluation process has included too many different elements (methods) and it was unclear what types of impacts are evaluated at what point in the project. The evaluation across the three living labs has been difficult because the applied evaluation methods differ which makes the comparison of results difficult. While co-creation can become a fuzzy process with stages and processes overlapping, a structured evaluation framework cannot easily adapt to this fuzziness.

#### What are its shortcomings and strengths?

The evaluation framework provided in this document may not be equally applicable to the different Living Labs. The framework has to keep a difficult balance between being general enough so all three living labs can fill it in, but also be specific enough so the answers given are useful and comparable.

#### How could it be improved for other projects?

Evaluation might be more useful if the link between the continuous evaluation (i.e. logbooks) and the final evaluation is clearer. Furthermore, the application of evaluation methods (e.g. surveys to participants, focus groups, interviews) in a unified manner across all living labs would also allow for better comparison between living labs.

# 3. ACKNOWLEDGEMENTS

The support of Brussels Capital Region – Innoviris (Belgium), Ministero dell'Istruzione dell'Università e della Ricerca (MIUR) (Italy), the Economic and Social Research Council (UK) and the European Union is gratefully acknowledged.