Deliverable 6.1
Report on living-lab transferability activities
## Document Control Sheet

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<th>Project no.</th>
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<th>Acronym</th>
<th>Citylab</th>
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<td>Project Title</td>
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## Citylab consortium by Living Lab

<table>
<thead>
<tr>
<th>Living lab</th>
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<td>Procter &amp; Gamble Services</td>
<td>Vrije Universiteit Brussel</td>
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<td>London</td>
<td>Transport for London</td>
<td>TNT</td>
<td>University of Westminster</td>
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<td>University of Gothenburg</td>
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<td>Oslo</td>
<td>Oslo kommune</td>
<td>Steen &amp; Strøm</td>
<td>TOI</td>
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<td>University of Southampton</td>
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### Networking and outreach partner
POLIS
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Executive summary

The component of knowledge exchange and iterative knowledge transfer is central within the living lab concept. Identifying success, barriers and facilitators of the process, as well as failures are crucial to move on to the new living lab cycle and improve the process. The objective of WP 6 “Living lab interaction and transfer” is to promote the replication and take-up of CITYLAB solutions. That is done within the living labs themselves, but also between them, as well as in the follower cities and their local private partners following the project developments. Deliverable 6.1 provides the syntheses of “therapeutic workshops” conducted within CITYLAB to guarantee transferability across living labs. The main objective of the therapeutic workshops were to introduce an additional opportunity for knowledge exchange between the partners, providing cities, research and industrial partners with extra opportunities in exchanging experiences in setting up and operating local implementations within a city logistics living lab setting.

Three therapeutic session were conducted during CITYLAB project. These are:
- First therapeutic workshop in Paris, France, on 25 May 2016;
- Second therapeutic workshop in Rotterdam, the Netherlands, 1 December 2016;
- Third therapeutic workshop conducted within two sessions in: London, UK, on 11 May 2017 and Gothenburg, Sweden on 7 November 2017

Therapeutic sessions created useful moments to stop, reflect and discuss about applicability and utility of the living lab approach to urban freight. This is important not only from the perspective of general awareness to adjust/further improve worked out solution, but also necessary for the evaluation of the currently developed urban freight measure, as well as evaluation of the applicability of the approach itself. Analysis of the living lab cycle is a highly recommended step in the finalisation of each living lab cycle. Therapeutic workshops, as conducted within CITYLAB, have provided participants with these opportunities, focusing both on the experience from CITYLAB cities as well as external partners that are developing their processes according to the living lab principles. Deliverable summarizes the outcomes of the workshops and presents key reflections that were discussed.
1 Introduction

1.1 Background and overview of CITYLAB

The objective of the CITYLAB project is to develop knowledge and solutions that result in roll-out, up-scaling and further uptake of cost effective strategies, measures and tools for emission free city logistics. In a set of Living Laboratories (“Living Labs”), promising logistics concepts are being implemented, tested and evaluated, and the potential for further roll-out and upscaling of the solutions is being investigated and explained.

In CITYLAB, an implementation is defined as the process of preparing and putting into practice a new service or a new way of operating or organising logistics activities. The project focuses on four axes that call for improvement and intervention. Within these axes, CITYLAB supports seven implementations that are being tested, evaluated and rolled out. The cities involved are London, Amsterdam, Brussels, Southampton, Oslo, Rome and Paris. The four axes and the related CITYLAB implementations are shown in Table 1.

Table 1. CITYLAB axes for intervention and implementations.

<table>
<thead>
<tr>
<th>Axes for intervention</th>
<th>Implementation</th>
<th>City</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly fragmented last-mile deliveries in city centres</td>
<td>Growth of consolidation and electric vehicle use</td>
<td>London</td>
<td>TNT and Gnewt Cargo</td>
</tr>
<tr>
<td></td>
<td>Floating depot and city centre micro-hubs</td>
<td>Amsterdam</td>
<td>PostNL</td>
</tr>
<tr>
<td></td>
<td>Increasing load factors by utilising free van capacity</td>
<td>Brussels</td>
<td>Procter &amp; Gamble</td>
</tr>
<tr>
<td>Inefficient deliveries to large freight attractors and public administrations</td>
<td>Joint procurement and consolidation</td>
<td>Southampton</td>
<td>Meachers Global Logistics</td>
</tr>
<tr>
<td></td>
<td>Common logistics functions for shopping centres</td>
<td>Oslo</td>
<td>Steen &amp; Strøm</td>
</tr>
<tr>
<td>Urban waste, return trips and recycling</td>
<td>Integration of direct and reverse logistics</td>
<td>Rome</td>
<td>Poste Italiane, Meware</td>
</tr>
<tr>
<td>Logistics sprawl</td>
<td>Logistic hotels</td>
<td>Paris</td>
<td>SOGARIS</td>
</tr>
</tbody>
</table>

Work already carried out in CITYLAB has evaluated the expected economic, social and environmental outcomes of the initiatives in the seven CITYLAB implementations. The results of this analysis are provided in CITYLAB Deliverables 5.2, 5.3, 5.4 and 5.5 (2018) and reflect expected improvements in operational efficiency, traffic safety, air quality, and carbon dioxide (CO₂) emissions across the seven implementations.

Compared to many projects that involve short-term demonstration of urban logistics solutions, the CITYLAB implementations are one component of a broader and more ambitious project aiming to build, in the long term, city logistics living labs.
CITYLAB project consists of several interrelated work packages:

- **Knowledge Development and Data Management – WP2** (to collate, refine and further develop existing knowledge as well as create new knowledge and analyse key trends currently influencing urban freight transport in a Data Observatory)
- **Living Laboratories – WP3** (to establish Living Labs in the CITYLAB cities as a co-creation of the (local) CITYLAB research partner, city partner and industry partner including the development of a methodology that enables cities to set up a Living Lab as a way to improve the local urban freight sustainability issues, support Living Lab processes in the seven Living Labs set up in CITYLAB)
- **Implementations – WP4** (supporting the seven implementation actions initiated by the industry partners and collecting data as basis for evaluation of the concepts and processes)
- **Evaluation – WP5** (to thoroughly analyse how well the seven CITYLAB implementations perform in a specific context and analyse whether the successful ones could also be transferred to other cities)
- **Living Lab Interaction and Transfer – WP6** (to promote the replication and uptake of CITYLAB implementations in the other CITYLAB Living Labs and in cities beyond CITYLAB)
- **Dissemination and Exploitation – WP7** (to operate an effective dissemination and exploitation plan to establish and maintain various communication channels with relevant bodies, and to develop a series of targeted outreach activities and mediums for communicating the project to different stakeholder groups).

### 1.2 Note on city logistics living lab approach

The main objective of the city logistics living labs is to foster long-term co-operative relationships between local authorities, industry and academia to enable pro-active implementation of sustainable logistics measures along with monitoring and evaluation tools to enhance freight policy in urban areas. City logistics living labs are defined as an ecosystem which is necessary for more efficient scaling up and uptake of innovations in urban freight. In city logistics living labs the principles of the living labs approach, such as real-life setting, active user involvement, co-creation and iterative innovation processes are brought together on the macro level of the city, aiming to facilitate the uptake of logistics innovations in cities. Political and policy support for the urban freight, existence of the efficient stakeholder communication and cooperation platforms, monitoring and evaluation of the urban freight solutions and existence of the efficient knowledge transfer channels are defined as the key components of the city logistics living lab environment.

A cyclical approach is the foundation of the Living Lab methodology. Following this approach, several solutions can be tested and readjusted / improved to fit the needs of the real-life environment. One cycle within a Living Lab usually consists of the following phases: planning, implementation, evaluation and acting phases (Figure 1). The cycle can be continued into a new loop with the improvement of existing solution, can be finalised with rolling out of the solution or interrupted because the solution is considered as not interesting. During a cycle also a new idea for the Living Lab can be born and be than developed within another implementation case.
A living lab differs from conventional demonstrations in that it creates an experimentation environment in which stakeholders together aim at achieving a long-term goal. How to get there is not yet defined exactly, but the goal is shared among all stakeholders, including the citizen, government, industry and research. Especially the city logistics environment, with its many stakeholders, often conflicting stakes and all kinds of different backgrounds, would benefit from such an approach. Living labs can be used by stakeholders for co-designing, co-exploring, co-experiencing and co-refining new policies, regulations and logistics actions in real-life situations. This implies a process in which solutions and actions are tried out, supported by dynamic prediction and evaluation tools, where the environment is adapted to make it work at the same time, and where barriers are dealt with directly to have a maximum impact. It is a major leap forward from the traditional city logistics initiatives, in which demonstrations run with the aim to “prove” that the developed solution functions within a limited and temporary organizational setting. The majority of these have involvement of a limited number of stakeholders, mainly from the same group. The road towards the goal is described in detailed demonstration plans without involvement of other stakeholders, so the goal is not commonly shared. When the demonstration proves that the solution has effect or when the demonstration’s time is over, the demonstration is terminated and the situation goes back to where it was before. Because Living Lab approaches focus more on the environment, the ultimate goal is not only to prove that something works, but in addition, to allow absorption by the city, when it does.

1.3 Scope of the deliverable

Deliverable 6.1 is a part of the work carried out in WP 6 – Living Lab interaction and transfer. The objective of WP 6 “Living lab interaction and transfer” is to promote the replication and take-up of CITYLAB solutions. That is done within the living labs themselves, but also between them, as well as in the follower cities and their local private partners following the project developments.
Deliverable 6.1 provides the syntheses of “therapeutic workshops” conducted within CITYLAB to guarantee transferability across living labs. The main objective of the therapeutic workshops conducted within Task 6.1 is to support the work within WP 3, introducing an additional opportunity for knowledge exchange between the partners. These workshops provided cities, research and industrial partners with extra opportunities in exchanging experiences in setting up and operating local implementations within a city logistics living lab setting.

1.4 Deliverable structure

Chapter 1 is an introduction to Deliverable 6.1. In chapter 2 the implementation approach for Task 6.1 with the help of therapeutic workshops is explained. Chapter 3 summarises the setup, participation and key results from three workshops. It contains agendas and short descriptions of the topics discussed, as well main workshop conclusions. Finally, chapter 4 provides conclusions and further reflections for the inter-living lab transferability. Presentations, as well as lists of participants, are added to the annexes of this deliverable.
2 CITYLAB approach to the inter living lab exchange

The component of knowledge exchange and iterative knowledge transfer is central within the living lab concept. Identifying success, barriers and facilitators of the process, as well as failures are crucial to move on to the new living lab cycle and improve the process. The objective of Task 6.1 is to provide CITYLAB cities with extra opportunities in exchange of knowledge and experiences, thus assisting the work carried out within WP 3 – Living Laboratories.

Within the CITYLAB project inter – living lab exchange has been organised as a part of WP 6. WP 6 focuses on the transfer of knowledge on the living lab approach and experiences from urban freight implementations to other cities within and outside of the project. In the first stage of the project, the CITYLAB implementations were tested and validated in the seven Living Labs. The focus of the second stage of the project is the promotion and replication of the CITYLAB implementations to other cities.

![Diagram](image.png)

**Figure 2. Overall project approach with two stages.**

WP 6 have looked at different level of CITYLAB knowledge uptake. Figure 3 summarises the three levels of uptake implemented within a research project.
Therapeutic workshops were designed to provide inter-living lab transferability for CITYLAB cities. These workshops have focused on the cooperation between the local authorities, industry and research partners, further explaining and promoting the city logistics living lab idea. In each case, different local city context, associated urban freight logistics activities and involvement of key stakeholders were considered. The key focus of each workshop was to ensure that the different local living labs can use the knowledge from each other and scale advantages together.

In total, two therapeutic workshops and two therapeutic sessions took place within the duration of CITYLAB. Two first workshops had mostly informative character, presenting the current status of the CITYLAB living labs, specific features which characterise city environment as a city living lab environment and how experienced cities are dealing with them. Therefore, the first workshop shared experiences of Paris on the integral and strategic approach to the urban logistics; London experiences with involving stakeholders in the co-creation and co-design of urban logistics processes and experiences of Rotterdam in working with urban freight data in real-time setting. The second therapeutic workshop brought in knowledge from outside of CITYLAB consortium. It focused on the findings outside the scope of the living lab approach looking at the experience from other energy sector which are using the living lab principles.

Finally, initially foreseen the third therapeutic workshop, was split into two sessions held within respective project meetings. These two sessions took place at the end of the project, when CITYLAB partners had more experience with city logistics living lab principles. Two sessions were organised in a discussion format, focusing on (a) cooperation between research, city authorities and industrial partners, and (b) the applicability of the living lab approach to the concrete CITYLAB city case and achieved additional benefits when applying it.
3 Therapeutic workshops

This section subsequently presents the summary of activities within the therapeutic workshops conducted in CITYLAB. For each of the workshops agenda, participation and key content topics are described. Full participant list as well as presentations are attached in the Annexes.

3.1 First therapeutic workshop: 25 May 2016, Paris, France

The first therapeutic workshop took place at the Department of Transport, City of Paris, France, on 25 May 2016. It brought together 29 participants, combining representatives of CITYLAB cities (research, city and industry partners) as well as General Assembly members.

The main objective of the first workshop was to better explain the concept of city logistics living labs to the city partners, answer their questions about the methodology and discuss together further steps for the local city logistics living labs. During the first therapeutic workshop experiences from the already existing CITYLAB “city logistics living labs” were shared with participants. Table 2 presents agenda of this meeting.

Table 2. Agenda of the first therapeutic workshop, 25 May 2016, Paris

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>14.00</td>
<td>Welcome/introduction (TNO)</td>
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<tr>
<td>14.10</td>
<td>Paris: “Organisation of the urban logistics processes and local stakeholder cooperation within Paris Charter on Sustainable Logistics”</td>
</tr>
<tr>
<td>14.30</td>
<td>Discussion</td>
</tr>
<tr>
<td>15.00</td>
<td>London: “Stakeholder cooperation and urban freight”</td>
</tr>
<tr>
<td>15.20</td>
<td>Discussion</td>
</tr>
<tr>
<td>15.50</td>
<td>Coffee / tea</td>
</tr>
<tr>
<td>16.00</td>
<td>Rotterdam: “Monitoring of the urban freight logistics processes in Rotterdam”</td>
</tr>
<tr>
<td>16.20</td>
<td>Discussion</td>
</tr>
<tr>
<td>16.50</td>
<td>Summary, conclusion</td>
</tr>
</tbody>
</table>

In the introduction of the workshop TNO presented the key pillars of the living lab methodology. Three topics were discussed:

- Methodological support: guidelines for establishment of the city logistics living labs
- Where do cities stand now: Roadmaps of local CITYLAB living labs
- The way forward.

It was highlighted, that city logistics living labs are focusing on the creation of the living lab environment on a city level, environment which will help specific implementations to achieve more efficient results and increase the chances of innovation roll out. It was explained what city logistics living labs are, their main characteristics and definitions.

The CITYLAB roadmaps, containing ambitions on the city level within CITYLAB project were presented. As the next steps, way forward for selected CITYLAB living labs was presented as an example, as well as a learning agenda from existing living labs, further guiding the project.

In the following presentation, City of Paris presented their approach to work on urban freight. The objective of the Paris presentation was to illustrate the importance of having a strategic direction dedicated specifically for urban freight and how that is translated within specific policy
documents. Logistics and urban challenges in Paris address by policy were described. A two phase consultation process, framing local urban freight policy was presented: from the commitment charter of 2006 to an operational Charter of 2013. There are multiple tools/policies available in Paris operationalizing the Charter into concrete actions on urban freight. As examples, the plan against air pollution, urban logistics in the local master plan as well as a program for innovative logistics projects were explained. The charter itself contains concrete implementation measures/projects around which stakeholder work is organized. Within CITYLAB the Paris “living lab” will take part in evaluation of two of the Charter measures.

Scott Wilding, the Principal Strategy Planner from Transport for London presented an approach on stakeholder cooperation in urban freight in London. He discussed the role of Transport for London in the urban freight policy definition; policy directions and priorities indicated by the London’s new Mayor. Another important topic was London’s growth, the challenges it faces and how partnership helps to address urban freight transport issues in a city.

Richard van de Wulp, from the City of Rotterdam, presented how the questions of urban freight has been addressed in the Netherlands and specifically in Rotterdam. Monitoring and usage of urban freight data is one of the key factors for the successful implementation and continuation of the city logistics living lab. The work on urban freight in Rotterdam is coordinated within Green Deal Zero emission city logistics. Key pillars of this work, community setting and the set of concrete actions were explained. The main focus of the presentation was the dashboard for urban freight data processing and visualization that Rotterdam has developed. Examples of data sources used, the approach to data processing and main features of data visualization were explained. Privacy concerns and data usage needs to be addressed to move forward with the urban freight data work.

The workshop resulted in an useful exchange of experiences and opinions. Cities that are currently applying living lab principles were until now satisfied with this approach to work with urban freight innovations. Highlighting the advantages, they also identified the concerns currently facing: e.g. involving smaller transport operators in stakeholder engagement process; filtering out and efficiently using necessary data from the large amount of real data that is being received, etc. Annex A presents participation list and presentations from the first therapeutic workshop in Paris.

3.2 Second therapeutic workshop: 1 December 2016, Rotterdam

The second CITYLAB inter living lab transferability workshop took place on 1 December 2016, in De Doelen, Shouwburgplein 50, Rotterdam. This workshop coincided with the Polis conference which took place in Rotterdam and, thus, had an objective to confirm the ideas of the city logistics living labs approach with partners outside of the CITYLAB consortium. The key idea was to enrich the knowledge of CITYLAB cities with experiences of external cities using similar or comparable approaches. The workshop was combined with the Polis event, therefore the list of participants contains representatives from the follower cities as well as representatives of all other cities interested in the Living Lab approach. Table 4 presents the agenda of this meeting.

In order to introduce to all new participants the city logistics living lab approach, TNO started with a presentation about the City Logistics Living Labs concept and approach, developed in
CITYLAB, and about the experiences of the CITYLAB partner cities which already function according to the living lab principles on the city level.

Table 3. Agenda of the second therapeutic workshop, 1 December 2016, Rotterdam

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>09.30-11.00</td>
<td>CITYLAB 1st session: Replication and uptake of Living Lab approach on a city level</td>
</tr>
<tr>
<td>9.30</td>
<td>Welcome/introduction (TNO): “Living Lab approach for city logistics: experiences from CITYLAB’s living labs” - Nina Nesterova, TNO</td>
</tr>
<tr>
<td>9.40</td>
<td>Presentation of 3 papers:</td>
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<td></td>
<td>- “The functioning of city logistics from a neighbourhood approach” - Martijn Altenburg, Amsterdam University of Applied Sciences &amp; Claes Groot, Municipality of Amsterdam</td>
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<tr>
<td></td>
<td>- “Transnational policy framework - Guidelines for energy-efficient cities” - Afroditi Anagnostopoulou, CERTH</td>
</tr>
<tr>
<td></td>
<td>- “Urban goods distribution in the city of Barcelona” - Adria Gomila, City of Barcelona</td>
</tr>
<tr>
<td>10.20</td>
<td>Discussion on how the presented experiences would deploy with the LL approach, as intended in CITYLAB.</td>
</tr>
<tr>
<td>10.50</td>
<td>Summary, conclusion</td>
</tr>
</tbody>
</table>

TNO has highlighted why we need a new policy-making approach on urban freight and how living lab principles can be used in city logistics living labs to increase the uptake of innovative transport solutions. What was so far learned within CITYLAB was described. Key conclusions on how to set up and implement a living lab environment on a city level were:

- The set up phase is very important, this is where you discover unexpected challenges and opportunities;
- Involving different parties is critical;
- Evaluation needs to be an on-going process within living labs;
- Learning between different solutions within living lab and between similar organisations is key;
- It is not possible to force the process into fixed cycles, but it is necessary to follow a more natural development of the process and guiding it;
- It is necessary to be able to recognize the “act phase” in the process and go to next circle;
- Learning from the negative experiences is also important but is often not considered in the process.

After the introductory presentation three different experiences in implementing urban freight solutions within different city environments were presented: in Amsterdam, Barcelona and Greece.

Amsterdam was looking at how to develop city logistics solutions in a neighbourhood level. They started at looking at the local freight traffic flows: on the characteristics of the local delivery in terms of product type, frequency and transport organisation from the perspective
of the receiver, supplier and logistics service provider. 103 out of 1000 companies have participated in this research. Three elements were considered necessary for a successful policy on the neighbourhood level: policy, participation and knowledge (data). This goes highly in line with the living lab approach for city logistics.

Next, Afroditi Anagnostopoulou from CERTH presented the Smile project. This project looks at promoting innovative energy efficient solutions for smart Mediterranean region. The project has identified, planned, tested, shared and promoted public policies, strategies and measures for intelligent urban freight transport solutions, improving public and private actors' knowledge while imposing a direct energy saving impact to the cities. From the perspective of the living lab approach, the lesson learned was that the energy efficient measures and policies need to go beyond short-term benefits and have the potential to accommodate anticipated economic growth in the urban area.

Finally, the presentation from Adria Gomila, City of Barcelona, illustrated one of the key features brought along through the living lab approach: how to provide continuity in urban freight measures through the different policy cycles. Barcelona’ sustainable urban mobility plan 2013-2018 was presented: its main lines of actions, major trends, regulatory framework and objectives. Barcelona’s urban freight context is characterized by different types of goods delivered, different vehicles and different needs. The city realizes that it would not be possible to solve local urban traffic problems with just one solution, but with a range of them. Examples of specific measures, such as on-street loading and unloading areas, multiuse lanes, pedestrian zones, night deliveries were described. Micro platforms are one of the examples that is being developed by the municipality through the research projects (SMILE, NOVELOG). This way continuity of the measures in testing is insured. For example, in NOVELOG (as a follow up on what was done in SMILE for micro platforms approach), instead of SMILE pack (service subsidy for 6 month pilot, e-trike purchase), a longer term concession of public space to facilitate off street trans-shipment was provided as well as cargo-bike storage (avoiding operating costs of module rental, overnight trike parking).

In the overall final discussion, it was concluded that the living lab principles already are widely used by different cities in addressing urban freight issues on different geographical and sectoral scale. The living lab methodology can be adapted to different contexts and useful for involving a cyclical and continuous way for the most interested stakeholders in urban logistics interventions. Annex B contains list of participants of the second workshop.

3.3 Third therapeutic workshop: 11 May 2017, London and 7 November 2017, Gothenburg

The approach to the last therapeutic sessions was different than in the previous cases. Both workshops (in connection to the project meetings) have looked at the concrete added value of the city logistics living lab methodology for the CITYLAB cities and identified the learnings that can be transferred from one city to another.

11 May 2017 in London, General Assembly members were involved in the discussion together with CITYLAB research partners. Key components of the city logistics living lab environment are: political and policy support for urban freight; existence of the efficient stakeholder cooperation platforms; monitoring and evaluation of the urban freight solutions; existence of the efficient knowledge transfer channels and key role of cooperation between research – city – industry. This last topic, organised the discussion during the therapeutic session in London. The session focused on the experiences with city – industry – research collaboration in
CITYLAB Living Labs. The participants were divided into groups by city to discuss whether a living lab approach will be an acceptable and workable solution for their cities in the future. At the end of this session, the outcomes of each of these discussion groups were briefly summarised by one or more participants from each of the city groups for the benefit of those in other city groups.

7 November 2017 in Gothenburg, within a project meeting, another inter-living lab transferability session was organised. During this last therapeutic session CITYLAB living lab experiences and lessons were discussed. The key topics were: cross-living lab knowledge sharing and take up of ideas; capturing the learning between the cities and relation to other cooperation practices in city logistics. Discussion was organized around the following questions:

- A living lab for city logistics, as outlined in CITYLAB, is it suitable for your city? If yes, why and if no, how could it be designed to better fit the needs in your city?
- How well did you succeed with the living lab in your city in reaching your initial goals?
- Would you expect different outcomes of the implementation, if you would have it implemented using the traditional way and not using the living lab approach?
- What are the difficulties you have met in advocating the living lab approach in your city?
- Have you beneficially collaborated and/or shared ideas with the other living labs in the project? If yes, what did you learn from them?

Discussions during the session have led to the following conclusions:

- Experience from CITYLAB shows that a network of cities can make things happen - the dialogue and discussion contribute to smoothing the processes. The living labs also provides a mechanism to try things in a more formal way - a more structured network.
- In Southampton, the project has improved the connection between the parties involved in the Living lab. The core (part) has been the academic part in the middle receiving the problems from the industrial partner. Small low-cost investigation on issues which is challenging for industry. Understanding the data sharing agreement.
- In Paris, project collaborations help to increase the understanding of urban freight within the local authority and to identify the issues for cities relating to these activities. It is profitable to work in an open group just from hearing what is happening other places in the world. Micro-hubs in Paris came from experiences in Brussels. The politicians do not know what to do to make a change feasible.
- Without the collaboration, not all cities would have the visibility of what had been a success and what to implement. It is a way of providing feedback to the decision-makers. Also, it contributes to the success of securing funding. Reviewing what we are doing helps secure evidence-based information.

Annex C presents lists of participants from Gothenburg session as well as questions discussed within the workshop.
4 Conclusions and discussion

Therapeutic sessions created useful moments to stop, reflect and discuss about applicability and utility of the living lab approach to urban freight. Knowledge transfer stands as one of the central concepts of the living lab approach. This is important not only from the perspective of general awareness to adjust/further improve worked out solution, but also necessary for the evaluation of the currently developed urban freight measure, as well as evaluation of the applicability of the approach itself. Analysis of the living lab cycle is final, but highly recommended step in the finalisation of each living lab cycle. At the end of each cycle it is important to evaluate whether the Living Lab environment corresponds to ambitions, goals and means of the concrete project and is the best environment to achieve project results and to decide what kind of improvements can be introduced into the process of the next Living Lab cycle (CITYLAB, Deliverable 3.1, Handbook).

The objective of the task 6.1 was to feed CITYLAB living labs with knowledge and experiences about living lab processes gained by different living labs throughout the project. This task created additional opportunity for cities to focus on the knowledge transfer and to reflect on their own experiences with city logistics living labs. Workshops have illustrated that living lab principles are already widely used by different cities in addressing urban freight issues on different geographical and sectoral scale. They are often not explicitly mentioned, but in their essence, they are more and more widespread. Living lab principles can be applied at any level: city, neighbourhood, specific measure or implementation. City living lab facilitates the roll out of innovations, because a special environment is created on the city level, thus facilitating participation of the key stakeholders in the development of efficient measures and solutions. Cities that have already organised the work on urban freight according to living lab principals see clear advantages in the process. Some of them are:

- the dialogue and discussion contribute to smoothing of processes;
- the process helps to improve connection between the parties involved in the Living lab;
- collaborations within a living lab helps to increase the understanding of urban freight within the local authority and to identify the issues for cities relating to these activities.

Cooperation between city authorities, research parties and industrial parties, that lies in the centre of city logistics living labs proves to be beneficial to all participants. The added value for city authorities is translated in:

- Higher policy coherence due to the bottom-up insights;
- Increasing the common perspective on key issues;
- Stimulating urban freight knowledge;
- Attracting more investments and creating synergies from the investments;
- Overall: support for planning; better understanding of the real challenges; evaluation of the effectiveness of their policy measures.

The added value for industry partners is insured by:

- Opportunity to “influence” the policy/decision-making;
- Independent advice on the challenges at hand;
- Improved business cases;
- Facilitation of the innovation roll out;
- Higher rate of the innovation uptake.
The added value for research institutes in being part of city logistics living labs lies in:

- Cost-efficient access to data and user experiences;
- Opportunity to validate research findings;
- Facilitation of the innovation roll out;
- Acting as an “orchestrator” of logistics innovations on a city level.

An analysis of the experiences from different Living Lab cycles and at different moments of the living lab process is therefore an important step. Within a project set up this activity was performed in a form of a workshop. At the same time, this is also relevant for any inter-living lab process. In this one-day workshop it is then important to understand what was good and what went wrong during the Living Lab cycle/process and, most important “why”? What were the actions that were taken by Living Lab to resolve any conflict or bottleneck situation? Were external parties satisfied with the level of their involvement in the Living Lab cycle and, with its results? It is essential that lessons learnt from one cycle/process step are incorporated into the further processes. In CITYLAB, therapeutic workshop served this purpose.
## ANNEX A. First therapeutic workshop

### List of participants

**CITYLAB** 635898

General Assembly, 25 May 2016, Paris, France

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<thead>
<tr>
<th>Name</th>
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<td>Anne-Sophie Jamet (Paris)</td>
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<td>Bram Kin (VUB)</td>
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<td>Nina Nesterova</td>
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<td>Olav Eidhammer</td>
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<td>Richard van der Wulp</td>
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<td>Sara Verlinde</td>
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<td>Scott Wilding</td>
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<td>Nicoletta Ricciardi</td>
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CITYLAB experiences with Living Labs

Nina Nesterova, Hans Quak
TNO
25 May 2016
Paris, France

Content

• Part I. Methodological support: Guidelines for establishment of the city logistics living labs
• Part II. Where do cities stand now: Roadmaps of local CITYLAB Living Labs
• Part III. The way forward
Overview of work performed in WP3

WP 3: focus on the development of the living lab environment on the city level

Work performed:

- Deliverable 3.1 “Practical guidelines for establishing a city logistics living lab”
- Deliverable 3.2 “Local CITYLAB roadmaps”
- Process evaluation of Living Labs within Task 3.3

Part I. Methodological support: Practical guidelines for establishing a city logistics living lab

Methodology to plan, organize and implement a living lab in the city.

Distinction made between:

- Living Lab environment on a city level (strategic level) (CITYLAB WP3)
- Specific policy measures/implementation cases (operational level) (CITYLAB WP4)
Living Lab methodology: cyclical approach

Two levels of application

Application of the LL methodology:
- To set up the Living Lab environment in a city
- To perform specific implementation cases and measures
Part II. Where do CITYLAB Living Labs stand: Roadmaps of local CITYLAB Living Labs

Within Task 3.2 the cities were asked to:

• Report on the current urban freight transport (via questionnaire in task 2.2 + template document in task 3.2)

• Develop local CITYLAB roadmaps

Main attributes of a living lab process

**Living Lab:** A test environment for cyclical development and evaluation of complex, innovative concepts and technology, as part of a real-world, operational system, in which multiple stakeholders with different background and interest work together towards a common goal, as part of medium to long-term study.

Applying this, to the city logistics environment, the main attributes of the city logistics living lab are:

• Urban freight strategy/plan

• Established urban freight transport stakeholder cooperation mechanisms

• Existence of measures/implementation cases

• Monitoring process
Urban freight transport context

To describe for each city what is already there, what is currently going on and available in the urban freight transport:

- **Characteristics of freight transport system and policy framework**
  - What are the challenges of the urban freight transport system in xx?? and which ones are really specific to xx?? What is a policy framework, main guiding documents, their ambition, objectives, goals, measures?

- **Cooperation on urban freight transport**
  - Existing cooperation on urban freight transport? Does environment similar to Living Lab environment exists in the city?

- **Existing data and monitoring on urban freight**
  - What kind of indicators are collected, specifically on traffic, environment, socio-economic parameters

CITYLAB Living Lab roadmaps

Cities define their ambition for the city living lab environment development within CITYLAB project

Result: widely accepted plan, including what cities want to achieve, the measures, measurements, on-going process.
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| Objectives within CITYLAB |
| City level                   |
| Implementation cases        |

**CityLab**

Living Lab environment in CITYLAB cities: examples

- Shared stakeholder/user consultation platforms
- Set of specific measures to contribute to the policy objectives
- Policy framework of the LL environment
- Continuous monitoring of the urban freight LE environment

![Diagram of Living Lab environment in CITYLAB cities: examples](image)
Living Lab environment in CITYLAB cities: examples

Related measures from the Charter, Air quality plan, Urban masterpl. etc.

Living Lab implementation cases
Part III. The way forward

- What next as the city action
- What we can learn from each city living lab environment within CITYLAB

Both are input to Deliverable 3.4: *Guidelines for future living labs*

What next as a city action: Southampton

The Southampton Living Lab’s ambition is to vastly improve air quality within the city while maintaining economic prosperity.

Within the CITYLAB project, on the city level, the objective is to **further develop cooperation mechanisms between different actors of the urban freight transport** in order to make a next step to the creation of the Living Lab environment in the city.

**The planned actions are:**
- Consultation and drafting of a Memorandum of Understanding (MoU) (stating freight-related objectives and possible measures)
- Publicising the MoU and directly approaching companies involved in DSPs and other relevant organisations to seek their agreement with it
- Convening living lab meetings to discuss progress, results and ways forward
- Organisation of other dissemination events.
What next as a city action: London

1) Linking different forums and institutions dealing with low emission city logistics through membership of the Citylab partners:
   • London Freight Forum (Sam Clarke, Gnewt Cargo and Andrew Lowery, TNT UK)
   • CLFQP (Andrew Lowery, TNT UK and Michael Browne, UoW)
   • LoCity initiatives (Jacques Leonard, UoW)
   • TfL freight and fleet unit (Jackie Short, TfL)
2) Support existing structures on urban freight policies and stakeholder engagement
3) Organise a Workshop on the TNT Gnewt trial
4) Setting up an Urban Double deck truck trial.
5) Continue the London freight data discussion.

Learning action for CITYLAB

Learning from cases with established Living Lab environment:

• Paris and London: how cooperation between different urban freight transport stakeholders is organised, how in general the process of the running of the Living Lab environment on a city level is assured. Specifically, Paris cases are looking at evaluation of two implementation measures. That would be interesting to know how common learning from the results of different measures is organised and if there is a transferability of good practices.

• Southampton is interesting from the point of view of establishment and further development of cooperation mechanisms for the Living Lab environment on the city level and from the application of the Living Lab methodology to the concrete implementation case.

• Rotterdam is in the beginning of the process of the Living Lab formalisation on the city level. We are going to assist the city in the next steps.
Learning from cities where the focus is on the implementation cases

- Oslo: how the Living Lab structures can **support implementation and evaluation** of one particular case.

- In Brussels the P&G methodology for running of the Living Lab will be applied for the implementation case. This will **enrich the current approach** and we can learn from the lessons learned and enrich the **methodology** proposed in Deliverable 3.1.

- Rome is planning to follow the Living Lab approach as proposed in the Deliverable 3.1 to implement their case. This will be used as a way to learn **working with the living lab approach** in order to examine if it is useful for Rome to use it to start working in or with a city logistics living lab environment.

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**Stakeholder Co-operation and Urban Freight**

Scott Wilding
Principal Strategy Planner
Transport for London

25th May 2016
Introduction

- TfL’s role and London’s new Mayor
- London’s growth and the challenges it faces
- Partnership working

Transport for London’s role

To keep London working and growing and make life in London better. We will deliver a transport system that secures London’s position as a world-leading city and the engine of the UK economy.

Mike Brown: Commissioner for Transport
The New Mayor and his Manifesto

- Elected 5th May – largest single mandate of any politician in Europe
- Political change from Conservative - Labour
- Responsible for running the city and its transport system

Sadiq Kahn: Mayor of London

London’s growth

- Population: +1.7 million by 2030

[Graph showing population growth over time]
Freight and the road network

**Today**

- 80% Of all journeys are on **road**
- 90% Of all freight carried by **road**
- £200bn Value of freight moved (est.)
- £23bn Value of person time carried
- £2bn Annual cost of congestion

**The future**

- 60% of freight
- 25% of person time
- 15% increase in congestion by 2031

---

Our vision for freight

**VISION**

The safest, cleanest vehicles on the right routes making the fewest possible journeys

**OBJECTIVES**

- Improve safety
- Reduce congestion
- Improve air quality
- A fair cost to Londoners

**APPROACH**

- MINIMISE
  - Mode switch
  - Consolidate
  - Changing behaviours
  - Land Use
  - Reducing
  - Right Routes & places
- MATCH
  - Cleaner vehicles
- MITIGATE
  - Safer vehicles

---

EVERY JOURNEY MATTERS
Our continuing programme

Achieving our aims through partnerships - Mitigate
London Boroughs and Re-timing - Match

Mode Switch Partners - Minimise
Thank you

scottwilding@tfl.gov.uk
www.tfl.gov.uk/freight

Sustainable urban logistics
City of Paris

CITYLAB Transferability workshop, May 25, 2016
Objectives

- The City of Paris and logistics
- A partnership approach to sustainable logistics
- A multitude of tools to implement policies

Context

The City of Paris and logistics
The City of Paris

A population of 2.2 million on 105.4 km²
A city with high population and business density

- More than 20,000 residents per square kilometer
- 1.8 million jobs located in Paris

City of Paris/centre of the Paris metropolitan area

Hub of the national transport network infrastructure with:
- Motorway network (regional and national)
- Railway network from 6 railway stations
- Waterway network with the Seine river and its tributaries

The city’s logistics is based mainly on road transport and concentration hubs located outside of Paris
A sustainable logistics plan?

- Consolidate inflows and outflows of goods in Paris

- Optimize distribution with urban logistics space to operate last kilometers with cleaner and better fitted vehicles

Urban logistics in Paris

Transportation of freight

- 90% uses road as transport mode
- 20% of vehicle-km in Paris
- 100,000 vehicles per day

Deliveries

- 4,260,000 pickups and deliveries per week in the Paris Region
- 61% of freight trips with vans

In a few words

- 62,114 establishments, incl. 13,822 bars and restaurants, 1,870 hotels and 7,214 grocery stores
- 100,000 persons employed in freight and logistics
- Food distribution has changed with the development of proximity services (+70% mini-markets between 2011 and 2014)
- Non-food retail trade on distribution network
- E-commerce: only 23% of deliveries in the shops
- Decreasing inventories
- Land cost
Harmful Impacts

- Pollution
  - Road transport in Paris:
    - 32% of (transport based) GHG emissions
    - 50% of (transport based) nitrous oxide emissions
- Congestion
- Noise emission
- Accidents
- Non-integrated logistics activities within the city

A large numbers of players

- State
- Region
- The new Greater Paris
- New Public Territorial Establishments (12)
- Municipalities: Paris is one among 1287 in the Paris region
- Chamber of Commerce, Guild Chamber

- Economic dynamism and important sector for jobs
- Region-wide approach
- Environmentally friendly logistics
- Urban planning
- Transport and deliveries
- Home deliveries / Persons of reduced mobility
- Municipal procurement and internal logistics (roadworks and building sites, waste)
- Transport companies
- Logistics providers
- Shippers
- Firms
- Urban planners and developers
- Infrastructure managers and railway and waterway operators
A two phase consultation process:
Charter of 2006
Charter of 2013

Charter 2006

2002: first process of consultation with freight stakeholders
June 2006: signature with 47 partners

A new regulation affecting traffic and deliveries
Delivery zones
Reintroduction of logistics in the urban center

From a commitment Charter to an operationnal Charter

A new charter signed in September 2013 by 80 partners (90 in 2015)

- More down to earth and operational
- Based on projects
- Relying on greater involvement of partners
- An operational monitoring committee for the projects that bring together all partners once a year
- Dedicated working groups for each project
- Document is available in English
16 project sheets

**PROJECT 1**

**Outlines policy for urban logistics in Paris**

**General policy for urban logistics in Paris**

**Work on Chapelle International Logistics hotel**

*Hier, tout un secteur d'entreprises logistiques*  
*Demain, l'hôtel logistique compact laisse de l'espace à d'autres programmes*
16 project sheets

- Trialling of cargo tram with an operator
- Developing logistics areas in public car parks and with social landlords
- Modernization of delivery zones, inventing and trialling an information service dealing with the availability and reservation of delivery zones
- Deploying a network of recharging terminals for electric vehicles in Paris

Belib service

To encourage professionals to use electric vehicles, the city of Paris deploys a network of charging stations for electric vehicles:

- 800 terminals of 3 kW in 500 AutoLib public terminals
- 180 terminals of 22 kW in 60 stations
- 3 fast recharging terminals on the service stations on land owned by the city

A unique badge for terminals is being thought about

The City of Paris also encourages the development of natural gas stations
16 project sheets

Wish from the municipal council: 50% of last mile deliveries performed by non-diesel vehicles by 2017 and 100% by 2020
- Alternative energy supply with electric vehicles and gas vehicle

16 project sheets

- E-commerce and home deliveries
- Developing fleets of electric vehicles (own account or subcontracted)
- Agreement between the City of Paris and automobile transport companies: consultation, environment, urban integration, economic dynamism (agreement signed in 2013)
- Certification for low-noise night deliveries with Certibruit: certification of the entire transport chain - vehicles, sites, staff training + toll-free number for residents
- Introduction of a system of parking space reservation for moving/removals
- Local pedestrian delivery service in test
- Encouraging good practices for deliveries to small shopkeepers and own-account transport
- Developing water-based urban logistics with a self-unloading boat
3 new actions for 2016

3 new working groups:

- Rail transport and intermodality
- Reverse logistics
- Revision of regulation on traffic and deliveries

Multitude of tools

A multitude of tools to implement policies and to develop sustainable logistics
An Implementation in several steps:

- **2015**: access restriction from 8 am to 8 pm for heavy trucks and coaches over 3.5 tonnes, gasoline or diesel registered before 2001

- **2016**: access restriction on week days for passenger cars, vans and motorbikes, gasoline or diesel, registered before 2001

**Support for companies:**

- 3 000 to 9 000 euros to help buy an electric or gas vehicle (max 15% of acquisition price)

- Free parking for electric and gas vehicles

- Charging stations network

- Implementation of new compressor stations
**Urban logistics in the local master plan**

**An innovative logistics**

In 2015, the City of Paris and Paris&Co made a Call for innovative logistics projects
- 22 projects selected

Goals are:
- To support the 22 companies selected for an experimental test in real conditions over a period of one year maximum
- To bring out, through a partnership approach, reproducible processes or projects involved in improving urban logistics and reduce its negative impacts
Innovative projects

Consolidation of freight flows
- FILO Logistics
- IsoCafé
- Perimeter by Littlemart
- Shopping Center by Cousdlar.fr
- Stop Vélo Paris by Stop Proche

Storage and pick up points
- AirCafé by Ilood France / CUPS Privé
- Pickup stations by Pickup Services (Laboporte)
- Personnel / Facility Access by Partime
- City Levee
- UPS

Deliveries
- Bicycles and au Pas de Course
- Valéo Re_labels
- Courrierprivé.com by MPW Transports

Streamlining tours
- CITO!
- TourSécherCloud by GODONCEPT
- Skippoo
- Parking and area of delivery
- OPL by Park 34 with Tglis

Innovative equipment
- BlueLine Logistics
- Cluster Logistique Urbaine
- Liother et la base logistique intelligente
- Jumpy® Log sur Green Logistic
- Nadon Browser

Thank you for your attention
In this Presentation:

- Recap: Green Deal Zero Emission City Logistics
  - Dashboard
  - Data Sources: examples
    - Data Processing
    - Data Visualization
  - Data Hurdles: Privacy, Usage
What is Green Deal?

How are we going to achieve this?

**4 Pillars:**
- Technique
- Logistics
- Behaviour
- Governance and regulation
Community

Shippers
(Supermarkets, Department stores, Hardware stores, DIY stores)

Buyers
(Major employers, Municipalities, etc)

Carriers
(Transport companies, Delivery services, etc.)

Suppliers
(All companies that supply goods)

ZERO EMISSION

Dashboard

Data sources → Data processing → Visualization
Dashboard

Data: Usage

- Passenger vehicles: 88.2%
- CO₂: 50%
- NO: 18%
- PM10: 47%
- Vans: 9.9%
- CO₂: 18%
- NO: 25%
- PM10: 26%
- Buses: 2%
- CO₂: 18%
- NO: 37%
- PM10: 12%
Data: Privacy

Final note

We are happy to exchange ideas and experiences with you.

Please contact:

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ANNEX B. Second therapeutic workshop

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<tr>
<td>Richard</td>
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<td>van Ruijten</td>
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<td>Joren</td>
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<td>City of Delft</td>
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Susanna Bahl

Rek Wird
Transport for London

Nico Good
City of Brussels

Transport for London
## ANNEX C. Therapeutic session in London

### Annex I. List of Participants

<table>
<thead>
<tr>
<th>Organisation</th>
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<tbody>
<tr>
<td>TCI</td>
<td>Jördar Andersen</td>
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<td></td>
<td>Olav Eichhammer</td>
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<td>Kari Forsheim</td>
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<td>OSLO</td>
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<td>BM / AED</td>
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<td>Frans De Keyser</td>
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<td>Nicoletta Ricciardi</td>
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</tbody>
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Questions to CITYLAB partners

- A living lab for city logistics, as outlined in CITYLAB, is it suitable for your city? If yes, why and if no, how could it be designed to better fit the needs in your city?

- How well did you succeed with the living lab in your city in reaching your initial goals?

- Would you expect different outcomes of the implementation, if you would have it implemented using the traditional way and not using the living lab approach?

- What are the difficulties you have met in advocating the living lab approach in your city?

- Have you beneficially collaborated and/or shared ideas with the other living labs in the project? If yes, what did you learn from them?