The CITYLAB project: City Logistics in Living Laboratories

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Extended abstract

Goods, waste and service trips in urban areas impose negative traffic and environmental impacts, and there is a need for further roll-out of cost-effective and sustainable solutions. CITYLAB is an EU-funded H2020 project. The objective is to develop knowledge and solutions that result in roll-out, up-scaling and further implementation of cost effective strategies, measures and tools for emission free city logistics in urban centres by 2030.

CITYLAB will i) improve basic knowledge and understanding on areas of freight distribution and service trips in urban areas that have received too little attention; ii) test and implement 7 innovative solutions that are promising in terms of impact on traffic, externalities and business profitability and have a high potential for future growth; and iii) provide a platform for replication and spreading supported solutions. The core of CITYLAB is a set of living laboratories, where cities work as contexts for innovation and implementation processes for public and private measures contributing to increased efficiency and sustainable urban logistics. Linkages will be established between the different living labs for exchange of experiences and to develop methodologies for transfer of implementations between cities and between companies. This process will be supported by a strong research team. The outputs from the living labs will include best practice guidance on innovative approaches and how to replicate them. CITYLAB will lay the ground for roll-out, up-scaling and transfer of cost-effective policies and implementations that lead to increased load factors and reduced vehicle movements of freight and service trips in urban areas.

CITYLAB will create the context needed to reach this objective by deploying a set of living laboratories ('living labs') where cities and regions will work as dynamic and real life contexts for research, innovation and implementation processes for both public and private measures contributing to more efficient and sustainable urban logistics.

Currently, the field of city logistics is characterized by many small scale demonstrations. Barriers for large scale implementations of these demonstrations are often transferability, knowledge of business cases and involvement of the right stakeholders. A living lab differs from conventional demonstrations in that it creates an experimentation environment in which stakeholders aim at achieving a long term goal together. How to get there is not yet defined exactly, but the goal is shared among all stakeholders, including the citizens, government, industry and research. The living labs enable user-centric research for sensing, prototyping, validating and refining solutions in a dynamic real-life context. The set of activities, performed in a living lab context involving public, private and research partners, will stimulate a co-creation process that will most likely produce not only ex-ante acceptable policies but also ex-post higher achievement of results.

The project focuses on four axes that call for improvement and intervention:
- Highly fragmented last-mile deliveries in city centres;
- Inefficient deliveries to large freight attractors and public administrations;
- Urban waste, return trips and recycling;
- Logistics sprawl

Within these axes CITYLAB supports implementations that will be tested, evaluated and rolled out. The implementations deal with new distribution hub concepts and clean vehicles, a floating depot, initiatives for utilising free van capacity, consolidation of deliveries to large public institutions and shopping centres, integration of direct and reverse logistics, and logistics hotels aimed at counter-balancing logistics sprawl.

The seven CITYLAB living labs are Brussels, London, Oslo, Paris, Rome, Rotterdam, and Southampton, and the implementations will take place in these cities. However, dedicated actions will be made to involve additional cities across Europe, and transferability of solutions to other cities will be supported.