

Citylab project update Newsletter#3, Nov. 2016

Our third newsletter provides latest news from the seven cities implementing various freight initiatives: Amsterdam, Brussels, London, Oslo, Paris, Rome and Southampton.

Amsterdam - Motivation and concept

Congested and narrow roads in the city centre present a significant challenge for parcel and mail carriers in Amsterdam. In the initial implementation plan, PostNL proposed to transport goods in and out of the city using the canal network by the use of a floating depot pushed by a boat, with last-mile deliveries in the 'de Pijp' area using electric vehicles or e-bikes (see illustration). One aim of introducing this concept was to expand their business to include the supply of pubs, hotels and restaurants with fresh items.



Amsterdam initial concept

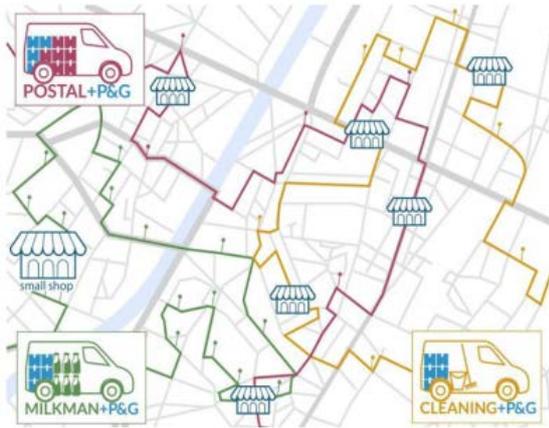
Implementation status and next steps

The costs of the vessel navigating the Amsterdam canals proved to be too high so the initial concept has been replaced by one where the floating depot is moored in the centre and used as a micro-hub, alongside other micro-hubs located in empty stores in the city centre. As before, last mile deliveries will be undertaken using electric vehicles and e-bikes; current plans are to limit the service to the mail and parcels market. The micro-hubs may also provide extra services such as bicycle parking and goods pick-up points.

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Brussels - Motivation and concept

Brussels has around 400 independent small grocery stores. Data from Procter & Gamble shows that the average store is replenishing stock twice per week often by the store owner buying goods from a wholesaler or by van delivery through a distributor. The main concept here is to introduce a new online sales channel and to use spare van capacity from existing providers to reach these stores. The goal is to replace inefficient store owner collections with more efficient deliveries having high vehicle load factors. The vans considered will be from different service providers. The consumer goods will initially include products from Procter and Gamble Business Services. In a later phase, we may also look into including other food/non-food products that are relevant for small stores located in the city centre.



Brussels concept

Implementation status and next steps

The work is being prepared as planned by establishing the vehicle network to be used – to date, Febelco (a distributor of pharmaceutical products), bpost and Parcify have joined the network. The plan is to trial the concept for 2-3 months with each company. By involving different companies, several set-ups can be tested which fits into the concept of a ‘living lab’. In September 2016 a set of stores in Brussels were approached to be involved. Currently a webshop is being developed where store owners can order from a dedicated range of goods with online payment. This is managed by a 3PL. Information on the orders is shared with the owners of the free vehicle capacity. The ordered products to the stores are delivered during their service trips. The goods’ movements between the distribution centre of the 3PL and the owner of free capacity depends on the company; this can start at the distribution centre of the 3PL, at the location of the owner of free capacity or at a centrally located pick-up point. The trials are planned to start in January 2017.

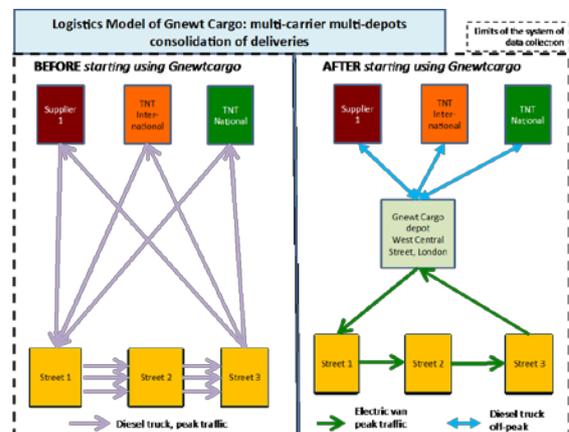
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London - Motivation and concept

The motivation is to increase the market of electric freight transport by improving business models for deliveries with electric vehicles. The concept is explored in collaboration with TNT and Gnewt Cargo. Gnewt Cargo have several years of experience operating electric vehicles in London and are aiming to improve efficiency and profitability of their operations. They need to establish the most suitable arrangement of distribution centres, vehicle types and operating patterns. In the CITYLAB London implementation, TNT is increasing its use of Gnewt Cargo as a subcontractor for last mile deliveries in London, while trying to find a business model that is acceptable for both parties.

Implementation status and next steps

Several issues have been identified during planning of the implementation. Contracts had to be renegotiated when one subcontractor had to be replaced by another one (Gnewt Cargo) and operational changes took more time than anticipated. One significant challenge was that the existing Gnewt Cargo depots in central London were not sufficiently accessible for big trucks and there was therefore a need to explore alternative depot locations. The conclusion was that a new TNT depot would be set up in Bermondsey and a trial has been running since August 2016.



London concept

The London implementation started with 5 new routes run by Gnewt Cargo via the TNT depot in Bermondsey. In the next few months data will be collected for evaluation purposes and new domestic TNT routes may gradually be added to the operations of Gnewt Cargo.

A dissemination event allowing an international audience to learn more about the solution is planned for February/March 2017.

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Oslo - Motivation and concept

Shopping centres often represent challenges for logistics service providers, as individual retailers may be located far from the freight receipt area, and the norm is that truck drivers have to bring all items to the shop. In Norway, shopping centres represent around 30% of retail trade. Steen & Strøm AS is a Nordic branch of the Klépierre group who are planning a new shopping centre at Økern in Oslo with a goal to establish common functions for inbound and outbound freight flows. Previous demonstrations and analyses have suggested that such functions should be operationally and financially viable. The implementation will facilitate identification of consolidation opportunities for logistics service providers as well as off-hour deliveries as the transport leg and in-house transport leg in the shopping centre may be decoupled. The shopping centre is expected to open in 2022.



Oslo – planned development

An aim of Steen & Strøm is to raise the priority of freight and to include stakeholders early in the planning process in order to improve the delivery of goods. In the present blueprint, although not yet final, the idea is to establish easy access, reduce delivery times and damage (e.g. from trucks hitting infrastructure). The preferred solution will depend on stakeholder views, which stakeholder groups contribute and internal processes at Steen & Strøm.

Implementation status and next steps

The CITYLAB project contributes to the planning of freight receipt areas by facilitating collaboration between relevant stakeholders through knowledge generation and dialogue between different stakeholders in the Oslo living lab. The idea is to ensure the possibility of representation for all potentially relevant stakeholders, thus, providing an informal structure in which the partners can collaborate.

Representatives of Steen & Strøm and the Institute of Transport Economics (TOI) participated in a study trip to the Swedish shopping centre Emporia in December 2015 to obtain experiences from common logistics functions there, operated by the company Logistikbolaget AB. In May 2016, there was a large discussion meeting involving logistics service providers, retail chains, a potential service operator (Collicare Instore) and the Oslo living lab partners Steen & Strøm, City of Oslo and TOI. From the initial drawings of the centre, the area dedicated for buffer storage close to the freight unloading areas has been extended to facilitate the common logistics functions – based on input from the other stakeholders during the meetings and discussions.

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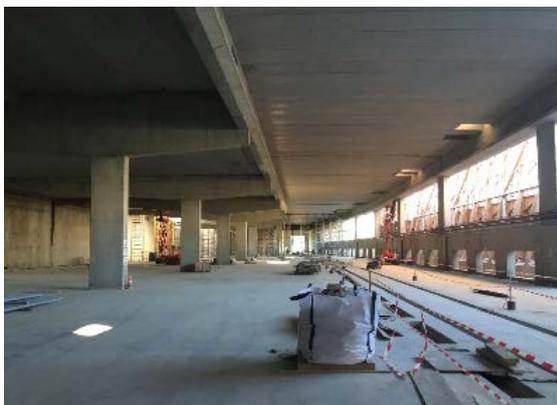
Paris - Motivation and concept

The motivation for the logistics hotels is to reduce negative consequences of logistics sprawl:

- Reduce vehicle emissions, noise and congestion at entry points to dense urban areas through consolidation and transfer to cleaner modes of transport.
- Provide efficient, modern logistics facilities to businesses serving the dense area of the Paris region.
- Increase mix of activities in specific areas of Paris: logistics activities, leisure, datacentre, shop/store, sport facilities, office spaces.
- Test new architecture, planning and urbanism concepts for the integration of logistics facilities in dense urban areas: form, acoustic, energy efficiency, integration of pedestrian flows.

Two urban logistics building implementations are included, both run by SOGARIS a logistics real estate developer and manager (capital owned by Paris and neighbouring governments):

Chapelle International (Paris 18th arrondissement) will have mixed use facilities on a 24000m² site including two logistics operations: an urban space for distribution, accommodating parcel and express transport operations using clean vehicles for the last mile; an urban rail terminal (see photo) for consolidated deliveries of a large retail chain.



Beaugrenelle (Paris 15th arrondissement), a 3000m² logistics facility opened in 2013 out of the conversion of a former parking facility. Operated by Chronopost express, last mile deliveries are made by 10 electric vans and 20 diesel vans, with the objective of increasing the share of clean vans. The main characteristics of this implementation are summarised below.

Implementation status and next steps

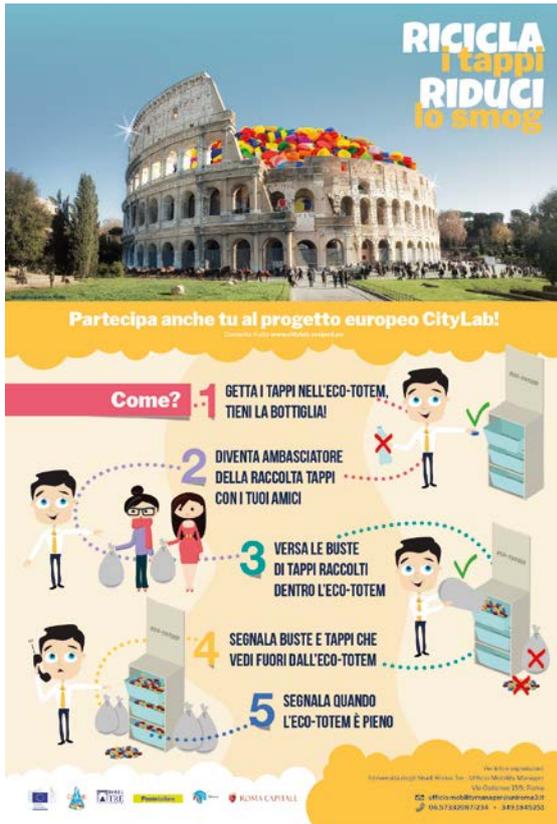
The facility at Beaugrenelle is in operation and data on the operations are being collected. Developing Beaugrenelle, they are now looking into the possibility of changing from electric vehicles to natural gas vehicles. The building of Chapelle international is going according to schedule and it is planned to open no later than November 2017. At the moment the main structure is finished.

The main economic and environmental data from Beaugrenelle should be made available in January 2017. The next steps will include finalizing the analysis of collected data for Chapelle.

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Rome - Motivation and concept

The concept is to integrate direct and reverse logistics through combining postal deliveries made by Poste Italiane with collection of recyclable items. Collections are made either directly from delivery addresses or from nearby locations on the same vehicle route. The aims are to improve recycling performance while reducing associated vehicle emissions and traffic congestion through maximising vehicle load factors and development of optimal vehicle routes. In the present implementation plan, recycled plastic cap boxes will be collected.



Rome – recycling promotion

Implementation status and next steps

Initially, the idea was to use modular units developed in the MODULUSCHA project for the collection of recyclable items. It transpired, however, that the market segments for which these were intended, were not so interested in combining with postal deliveries. An appropriate market segment was identified as plastic cap collection in the campus of University of Roma Tre. Containers for plastic cap collection have already been deployed in the university campus and, at present, information on the plastic cap collection initiative is being disseminated around the university (see photo). Participation will be encouraged through the use of a gamification process (i.e. a game with some form of reward). There is now an ongoing activity to establish a formal agreement with the firm responsible for providing the concierge service at the university to alert Poste Italiane to pick-up full

boxes. If everything goes as planned, the operational scheme for integrating direct and reverse logistics can be tested in November 2016, fine-tuned in December 2016 with full implementation expected in early 2017. A local showcasing event is planned in early 2017.

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Southampton - Motivation and concept

Large municipal organisations (e.g. local authorities, hospitals, universities) generate significant numbers of van and lorry trips through their purchasing of goods and services. The Southampton living lab aims to reduce freight impact by identifying consolidation opportunities and encouraging implementation. Southampton City Council supported this through the setting up of the Southampton Sustainable Distribution Centre (SSDC) operated by Meachers Global Logistics (MGL) from their premises (Nursling Industrial Estate) since February 2014. The city is motivated by improving air quality standards; participating organisations may directly benefit financially from more efficient purchasing practices and from reduced time spent handling goods from multiple carriers.



Southampton Sustainable DC

Implementation status and next steps

Various public sector institutions were reviewed and interviewed to assess the level of interest and potential benefits. Extensive data were collected for deliveries to the University of Southampton and Southampton Solent University. Potential for consolidation was identified in both cases, but various barriers currently prevent operational changes. In the hospital sector, there appears to be both potential for consolidation and an interest in changing operations. A pilot of consolidation of deliveries to St. Mary's Hospital, Newport, Isle of Wight (NHS Trust) using the SSDC commenced in September 2016 and there are ongoing discussions between the Trust and MGL about the scope of the operations and the costs with a view to further roll-out. Southampton City Council (SCC) have been involved in discussions and may provide support via a subsidy. A possible roll-out to Queen Alexandra hospital, Portsmouth is being discussed along with investigation of opportunities for joint procurement at St Mary's and Queen Alexandra. There are ongoing discussions with Southampton General Hospital as well. A showcasing event for the Southampton initiative will take place on January 27th, 2017.

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Follower cities and regions

As part of our dissemination activities we have established a group of follower cities and regions that have expressed a keen interest in urban freight and the initiatives being undertaken in Citylab. This group comprises: Antwerp, Budapest, Delft, Flanders (Belgium), Gdynia, Gothenburg, Graz, Madrid, Manchester, Mechelen, Milan, Pisa, Prague, Rogaland (Norway), Skedsmo, Turin and the West Midlands (UK). Each member of the group will receive information and invitations to events tailored to their specific stated interests. For further information –

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Published article

Shop and we'll drop - Understanding the impacts of student e-shopping on deliveries to university halls of residence during Black Friday week (McLeod et al), Logistics Research Network Conference, Hull, UK, 7-9 Sept 2016

Weblink: www.citylab-project.eu/publications/LRN2016_postprint.pdf

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