Sustainable city logistics in London
Camden London Borough Council (United Kingdom)

Background

One of the actions under the sustainability pillar of Camden’s Procurement strategy (2012-2015) is to “explore setting up efficient distribution networks and consolidation logistics in order to minimise the number of required deliveries so as to reduce vehicle emissions. Business case to test viability will be produced and submitted for consideration.”

A feasibility study carried out on behalf of the London boroughs of Camden, and Enfield (London boroughs are a type of local government district) focused on obtaining supply chain savings and environmental benefits through procurement. The study recommended the use of a London Boroughs Consolidation Centre (LBCC) - a facility that channels suppliers’ deliveries into one central point. The goods are then sorted onto fewer vehicles for the final ‘leg’ (or last mile) of the journey to Council sites, on a just in time basis.

Camden Council in London began introducing a more sustainable way of delivering goods within the borough as a result of a pilot scheme co-funded by the European Last Mile Logistics (LaMiLo) project. The concept was piloted in January 2014 for an initial period of six months, and later extended to a total of two years. It demonstrated the environmental and operational benefits of streamlining deliveries and changing purchasing behaviour. A long-term contract to operate both the consolidation centre and the deliveries to the end-user buildings was awarded thereafter.

Following the study, Enfield, Waltham Forest and Islington Council joined the LBCC for the concept trial. By consolidating orders, cost savings can be made based on the decreased mileage that suppliers travel and enables bulk purchasing of non-perishable goods, such as office supplies, to be stored until needed. By adopting new practices around ordering, greater operational and economic efficiency can be achieved.

Approach of the London Borough Consolidation Centre (LBCC)

Challenges

- Improving local air quality
- Reducing empty running mileage
- Local authorities are required to make savings
- Lack of awareness and understanding of how organisations operate from a logistics perspective

Solutions

- Suppliers delivering to one point rather than multiple addresses
- Consolidate deliveries to reduce number of trips
- Boroughs procurement tender documents to make the LBCC a requirement for their deliveries
- Working collaboratively with other boroughs, local businesses and other organisations
- Providing options for out-of-hours deliveries, use of quieter technology and trials of alternatively fuelled vehicles

Regarding the procurement requirement (third bullet above), this is a requirement for Camden; however as local authorities also use framework agreements to purchase goods, this requirement may not appear in all tenders.
How the Freight Consolidation Service works in practice

The recently rebranded Freight Consolidation Service (FSC) is a shared resource between the London borough partners which seeks to attract users from the private as well as the public sector to use the service. The facility is a 600 square metre warehouse space, which could be expanded to 2,500 square metres, if demand grows. It serves over 300 separate addresses across Central and North London.

When it first opened, four high volume suppliers and couriers were using the FSC. As of April 2016, the current total is 224, and still rising.

All inbound goods from the initial four high volume suppliers are delivered to the consolidation centre at pre-agreed time slots. Goods from all other suppliers can arrive at any time between 6.30 and 18.00. The goods are then consolidated and delivered to end-user buildings (normally between 9.30-16.00), with collections returned to the consolidation centre. Two vehicles are currently making the final delivery to end-user addresses and operate at 80% or higher utilisation.

The new contract for operating both the consolidation centre and the deliveries to the end-user buildings is for a minimum of two years, with up to two one-year extensions.

The idea is that all the vehicles will be low or zero emission albeit the vehicle market is still one/two years away before electric vehicles will be available at the sizes needed, which are in the 7.5 tonne segment. The main focus of the scheme is to remove freight vehicles from the road altogether.

Information on costs, financing, etc.

Using a third-party logistics operator has ensured that investment costs were not borne. Instead, operating costs are incurred for running the service, and purchases of land or vehicles were not made. The approximate annual cost for running the service is 250,000 euro (GBP 200,000). Camden Council received London Mayoral and EU Interreg funding, and the participating local governments have contributed approximately GBP 175,000 so far. It is intended that private sector businesses will pay for the service to avoid public funds being needed in the medium to long term. The aim is to be cost neutral within one to two years.

Achievements so far

The environmental credentials of the centre will be further enhanced following the introduction of an electric commercial vehicle (e.g. for shorter delivery distances). This is due to start following the start of the new contract this year (2016). However, the main environmental benefit is realised through the consolidation activity and removing vehicles from the road altogether rather than by introducing zero emission vehicles. The Consolidation Centre began operating with four main suppliers making 16 visits per week to the Centre - this has risen to 224 suppliers and yet the number of drivers/vehicles used by the operator has remained the same. The environmental case is enhanced by the operator collecting goods from some suppliers as a ‘backhaul’, which helps to ensure the vehicles used minimise the period they run empty, that is, with no freight onboard.

The Consolidation Centre has achieved the following:

- 57% reduction in vehicle trips
- 69% less kilometres travelled
- 72% reduction in empty vehicle running
- Reductions in NOx (71%), PM (87%) and CO2 (67%) emissions
- Buying power increased enabling a reduction in costs being negotiated, with supplier discounts of 5-7.5% realised
- Goods are being delivered on a more “just in time”, reducing the pressure on available storage facilities
- 50% reduction in the number of orders placed with the corporate stationery supplier in 2015 versus 2013 (before the concept trial started)
- 30% of staff surveyed have noticed their own behaviour change, which is confirmed within supplier’s own statistics – 2% reduction in small orders and a 70% increase in the average order value. These figures are good news for the supplier and cut down the number of deliveries and indirect costs

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Lessons learned

- Require a rate per drop from bidders. This will motivate logistics companies to fill up the vehicles and to select the right vehicle size for the load onboard.
- Start off with a reasonably small geographical area/number of buildings first (preferably larger buildings), and focus on all the myriad of supply chains contained within that area rather than going out too big.
- Require tenders to be re-configured, separating out product and delivery costs, rather than the hitherto standard approach which is to combine them together. This is good for visibility purposes, as to the proportion of the total cost required for the provision of logistics.
- Specify use of a consolidated centre unless the supplier consolidates themselves across product groupings.
- Reducing the frequency of deliveries has not caused undue inconvenience to council staff. Delivering two or three days per week is frequent enough rather than five times per week.
- Reduce financial risk (faced by the council) by helping to set-up a consolidation centre and perhaps part subsidising it, but once it is up and running to ‘pull away’ and let the logistics operator run it on their own.
- Freight consolidation is one part of a package of measures which can benefit the environment such as supply chain improvements, consolidating the number of suppliers used, introducing planning conditions, adopting zero-emission vehicles, re-timing deliveries outside of peak hours.
- For monitoring purposes, daily, weekly and year-to-date performance statistics are useful to have available.

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For related information, please see European GPP criteria for Transport and the Technical Background Report.

This GPP Example was previously published through the EU-funded LAMILO project, see http://knowledgehub.lamiloproject.eu/resources/40-london-boroughs-consolidation-centre-lbcc-case-study.php