



CROSS RIVER PARTNERSHIP

Delivering London's Future Together

Enabling last mile cycle logistics

Review and recommendations for Cross River Partnership / Central London Sub Regional Transport Partnership



Future City Logistics, for Cross River Partnership

May 2020



Executive Summary

Cargo bike deliveries have occurred for well-over 100 years, but recent growth has led to a wider variety of cycle logistics activity across central London than ever. However, there is no wholesale adoption of cargo bikes for last mile deliveries and take up seems to be lower in the UK than other countries.

Logistics complexities help to explain this, including the historical decline in the availability of land for logistics facilities in London and knowing that operators will always respond to their customer's demands. It is also necessary to recognise that delivering the total volume of goods required in Central London requires a combination of vehicles; HGVs and vans have more capacity and are more robust than cargo bikes, and that helps to lower the costs of deliveries.

Freight issues have been considered and relevant policies adopted in many central London boroughs, either in the transport, land use planning or air quality strategy. However, the resulting policies vary greatly and do not appear to be joined-up across the boroughs. In addition, a complex range of regulations exist and cover vehicles, land use and delivery points. These regulations influence current freight activity, sometimes in contradictory ways.

The Covid-19 pandemic may change what we buy and where those goods come from. There could be a trend to more local sourcing or an acceleration towards more home delivery by vans, especially from supermarkets or restaurants. Some cargo bike operators are working with local groups to provide local assistance and may build a larger customer-base as a result, others have closed down their operations entirely. History suggests that pricing and product choice may remain the key customer issues in the long term.

While we cannot be sure of what will change and how, we know that two priorities will remain the same; decarbonisation of our supply chains still needs to occur, and London's air quality must improve rapidly compared to pre-lockdown levels. To ensure zero emission freight deliveries in the long term, a review of relevant policies and regulations will be needed to achieve maximum change, ensure the consistency of outcomes, and avoid unintended consequences.

In the shorter-term, discussions with Central London borough officers and freight operators have identified three key topics for consideration:

- **Leadership and knowledge:** All boroughs are aiming for zero emission freight and current borough policy reflects differing levels of activity, experience and understanding of freight and logistics. A more collaborative and consistent approach could increase local understanding and enable a wider set of solutions to be implemented.
- **Stakeholders:** working with stakeholders is critical as businesses, operators, boroughs and individuals all have different perspectives. They also all have different roles in enabling zero emission deliveries. Engagement with existing stakeholders and working with different sectors and actors will be necessary to increase the uptake of the adopted solutions.

- **Site Availability:** the logistics supply chains that underpin freight movements require factories, warehouses and kerbside delivery locations. Policy needs to recognise this and ensure suitable property and logistics sites exist to enable cost-efficient zero emission delivery.

Potential actions that could help address these topics include:

- Responding to the current Department for Transport consultation on e-mobility
- Training and awareness raising for borough officers
- Sharing information between officers involved with freight
- Core freight officers working across CLSRTP boroughs
- Reviewing the role of the Central London Freight Quality Partnership
- Reviewing wider engagement with freight industry to aid delivery
- Evaluating combined impact of existing borough policies
- Developing a core common approach to freight management as urban planners adapt to significantly changing circumstances

Potential cargo bike trials could also be developed by Cross River Partnership and its public and private sector partners to increase knowledge and awareness of operators and businesses, including:

- Cargo bikes for servicing activity
- Exchange/'kissing point' for cargo bikes and/or porters
- A 'white label' cargo bike trial

The above initiatives support the ambitions of the post-lockdown recovery to be clean and green not just for personal transport, but also for the delivery and servicing activity that London will continue to depend on.

Further information:

tomlintonsmith@crossriverpartnership.org

ian@futurecitylogistics.com



Enabling last mile cycle logistics

Objective

This report follows up the proposed actions and recommendations from two previous reports, including the [2019 Cycle Logistics Study](#) for Cross River Partnership, into the feasibility of increasing cycle logistics across the Central London Sub-Regional Transport Partnership area.

Despite these previous studies, little wholesale change has occurred and yet zero emission last-mile logistics is possible and cycle freight has proven to deliver benefits to local streets and businesses.

This report has been commissioned by Cross River Partnership (CRP) to identify the issues that exist in enabling local cycle logistics operations and to bring together the opinions of the Central London boroughs and key operators. CRP is keen to understand how to unlock any potential blockages and ensure that future activity by Boroughs is the most appropriate and coordinated, and that the greatest value is obtained from any future public funding.

The Central London Sub-Regional Transport Partnership (CLSRTP) is a collective of senior transport officers from ten London boroughs:

- City of London
- City of Westminster
- London Borough of Camden
- London Borough of Hackney
- London Borough of Islington
- London Borough of Lambeth
- London Borough of Lewisham
- London borough of Southwark
- London Borough of Wandsworth
- Royal Borough of Kensington and Chelsea

Cross River Partnership is a non-profit public-private partnership organisation which has been delivering positive change for London's residents, businesses and visitors for over 25 years. CRP co-ordinates the Central London Sub-Regional Transport Partnership on behalf of Transport for London.

Background

CRP has extensive experience in freight management, having delivered a range of projects focused on increasing freight sustainability with a wide variety of stakeholders. These include European projects (e.g. Freight TAILS and FREVUE), working with the Department for Environment, Food and Rural Affairs (Defra) on Clean Air Villages, and working with London's Business Improvement Districts on lower emission logistics and reducing the impact of waste collections.

Cargo bike deliveries have occurred for well-over 100 years, but recent growth has led to a wider variety of cycle logistics activity across central London than ever. Over 30 different cargo bike freight operations exist; from individual businesses making deliveries with business-owned or rented cargo bikes, to large van fleet operators increasing the use of cargo bikes where physically or politically appropriate. Cargo bike deliveries are even occurring in the construction sector, with over 100 deliveries by Speedy to Crossrail, HS2 and Tideway, and to Morgan Sindall at the Britannia project in Hackney.

However, there is no wholesale adoption of cargo bikes for last mile deliveries and take up seems to be lower in the UK than other countries (notably the Netherlands and Denmark). This difference can be partly accounted for by the difference in national and city policy, but the much broader provision of cycle lanes and greater acceptance of cycling across the general population would also seem to be critical.

Getting the range of freight vehicles right also appears important, as it would be unrealistic to think that cargo bikes will deliver all last mile deliveries anytime soon. Post NL has identified that, while cargo bikes are appropriate and useful for very dense inner city delivery (for example within the A10 Amsterdam city ring road) larger, zero emission vehicles are required to move higher volumes, simply due to cost reasons (see figure 1).¹

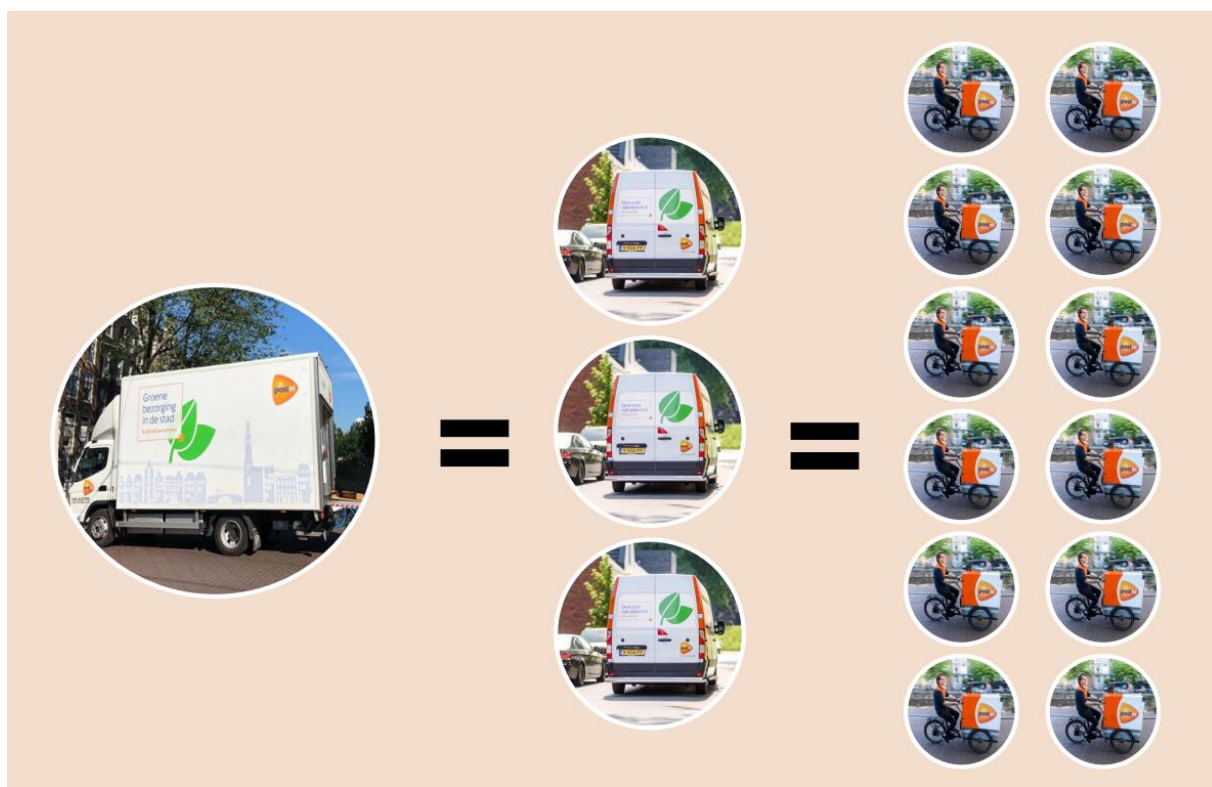


Figure 1 - Equivalent carrying capacity of zero emission freight vehicles (Post NL 2019)

¹ <http://tda-mobility.org/c40-cities-tda-webinar-zero-emission-zones-for-freight/>

A French review² of global cities in May 2019 listed three essential elements needed to enable economic cycle logistics:

- the provision of nearby spaces, to reduce the distance between the starting point and the delivery location,
- a fairly dense area for deliveries, with small or medium-sized packages if possible, and
- the ease of movement around public roads and spaces.

Report structure:

This report identifies key elements of the previous reports, summarises borough and operator comments and issues on cargo bikes and zero emission freight, and highlights two relevant case studies, in Berlin and Sydney. The range of available freight management solutions and trial data requirements are briefly discussed, and an outline of potential areas of focus and future trials is provided.

1. Previous reports

Two reports have been produced on cycle freight in the past 2 years:

- “Cycle Freight Study - An independent study commissioned by Transport for London March 2018”³, which ‘aimed to raise awareness of the capabilities and services that can be provided by cycle freight, and measures for promoting uptake’, and
- “Cycle Logistics Study – Final report for Cross River Partnership on behalf of the Central London Sub-Regional Transport Partnership 2019”⁴, which aimed to ‘assess best practices and develop a set of recommendations designed to increase the uptake of cycle logistics in central London boroughs’.

These reports, and an unpublished report from 2017 to which both reports refer, were developed by a single consultancy, albeit with some external support. While clearly very well-versed with cycling and the issues that result from last mile delivery by bike, from a logistics perspective there are issues in both reports in the understanding of the complexity of supply chains.

From a logistics perspective, three key complexities exist: the logistics links that feed into and support first- and last-mile freight activity; the balance between customer service levels and staff and vehicle costs that freight operators achieve on a daily basis; and the historical decline in the availability of land for logistics facilities in London.

² <https://www.logicities.fr/2019/11/05/cyclologistique-ou-en-sommes-nous/>

³ <http://content.tfl.gov.uk/cycle-freight-study.pdf>

⁴ https://crossriverpartnership.org/wp-content/uploads/2019/03/20190520_Element-Energy_Cycling-logistics-study_FINAL-REPORT-1.pdf

Recognising these elements is critical to understanding that the range of origins and destinations and the current freight vehicle activity, underpin the current cost-effective deliveries that London's business and residential customers have come to expect. Changing individual elements in these supply chains to address issues such as air quality or decarbonisation, can have consequences elsewhere in the supply chain and increase costs or decrease service levels.

As a result, it is suggested that estimates such as "14 per cent of vans could be replaced by cycle freight by 2025", is likely to be an over-estimation of the volume of goods that can be delivered by cycle freight in central London in 5 years. Change at this level could seriously impact service levels or customer costs, unless it is accompanied by other changes – such as the use of local logistics hubs to provide shorter trips.

The 2019 study for CRP identified eight recommendations:

- Identify opportunities for cycle freight within the borough
- Engage with industry
- Lead by example
- Make space for logistics hubs and bike parking
- Continue to implement cycle friendly infrastructure
- Develop cycle freight strategy
- Engage with other novel modes of transport
- Bigger picture – support London-wide cycle freight activity

It is clear from talking to borough officers that, where they are aware of these previous reports, they have so far been unable to follow up on these recommendations. With little change so far, the recommendations have been reviewed and some amendments suggested (see Appendix 1).

2. Borough comments and issues

A combination of phone and face-to-face discussions on some key questions took place in February and March 2020 with officers from City of London, City of Westminster, London Borough of Camden, London Borough of Hackney, London Borough of Islington, London Borough of Lambeth, London Borough of Lewisham, London Borough of Southwark, and Royal Borough of Kensington & Chelsea.

a. Why boroughs want to promote cycle freight

The overwhelming borough objective is to rapidly improve local air quality by promoting cycle freight, with associated improvements in road safety and the liveability of neighbourhoods. A reduction in the impacts attributed to delivery vehicles, including congestion and noise pollution is also anticipated.

However, it appears that the main aim is to accelerate the transition to all vehicles being zero emission and boroughs are limited in the action they can take. Promoting cycle freight is an obvious answer that seems deliverable in the short term.

b. Existing logistics issues

There appears to be very limited day to day issues from logistics operations in the boroughs. What does occur is mainly at the level of parking/loading contraventions, some noise issues, and some problems with individual delivery vehicles, including cargo bikes parking on the pavement.

c. Previous cycle freight experience

In some cases, borough objectives are being tackled through Low Emission neighbourhoods and streets and Clean Air Zones. The CRP supported activity on Clean Air Villages seems to be well recognised way of providing assistance in this area.

As a result of these initiatives, most boroughs have experience with cycle freight, e.g. Clean Air Villages run by CRP, projects funded by the Mayor's Air Quality Unit or Healthy Streets initiative, or through local BID involvement in these schemes.

However, the existing activity and any potential successes are likely to remain slightly siloed in individual boroughs or BIDs. Opportunity exists for a greater level of awareness and sharing of cycle freight activity within and between boroughs.

d. Relevant Borough policy to promote cycle logistics

The CLSRTP boroughs have varied approaches to reducing the impacts of freight in local policy. Freight issues have been considered and relevant policies adopted in some boroughs, either in the transport, land use planning or air quality strategy. However, the resulting policies do not appear to be comprehensive and are not consistent or joined-up across the boroughs.

In part, this would appear to be because many borough officers feel they have limited experience of knowing what freight management policy levers are available and how they could deliver change locally. There are also questions as to what the borough's role is in managing freight (a private commercial activity) and how interventionist boroughs should be. TfL and the Central London Freight Quality Partnership are seen as ways to increase this knowledge or obtain assistance.

Some boroughs are taking local regulatory action through, for example, local zero-emission zones. The Mayor of London is also delivering London-wide policy changes over the next few years (ULEZ and DVS). Boroughs are keen to see the local impacts of these policies, as this could avoid lots more individual, highly controversial, costly and more medium-term measures being developed.

The most common approach to freight management has been through the transport policy, where freight may be included in high level aspirations such as reducing traffic congestion, a shift to zero emissions and improving road safety. Freight travel planning is used by some boroughs and cycle freight may be mentioned as an option to mitigate the impacts of freight traffic, but for most boroughs reference to specific interventions is limited.

The use of the land use planning system was rarely mentioned. Without much in the way of industrial or logistics land in the CLSRTP boroughs, little reason is seen to apply land use policies related to logistics land use (B8 use class). This leads to a reliance on the relevant London Plan policies, if the boroughs consider logistics land use at all. While the Mayor's Draft London Plan (2018) was comprehensively updated to reflect the need for urban logistics facilities, reliance on the London Plan could be problematic as these policies have recently been challenged by the Secretary of State⁵.

The current approach to freight by boroughs ranges from very little reference to freight, through LB Camden's more holistic approach, to the City of London's development of fully integrated policies and proposals to address the negative impacts of freight and assist in enabling zero emission local deliveries. The City's proposals are also targeted at a quantifiable reduction of freight vehicles in overall terms and especially in peak periods, within set time limits.

However, this variety presents an opportunity for CLSRTP boroughs to share their policy approaches by sharing evidence, reviewing or amending where appropriate and potentially adopting more consistent policies, providing greater market stimulus and uptake.

Similarly, the desire for additional sources of knowledge could be provided by joint funding of 1 or 2 freight officers working across the CLSRTP boroughs. This could possibly replicate the TFL funded Healthy Streets Model or be independently contracted to a third party such as CRP.

e. Willingness to pilot, trial and adapt new solutions for urban logistics

All boroughs appear willing to do more, subject to political approval, providing reasonable funding is available and, in several cases, limited borough resource is required to manage any trials. It was suggested funding needed to be in addition to existing LIP funding which is already allocated. Areas suggested by boroughs for investigation included locations to store cargo bikes and an international review of cargo bike activity to see if other freight sectors could use cargo bikes, e.g. servicing.

Unfortunately, no borough could flag up immediately any potential premises for trials. This seems to be because the transport, land use and environmental teams in boroughs don't have close working relationships with the borough property teams. Boroughs feel there is no clear definition of what sort of premises are required, even for a trial or pilot. An outline is provided in Appendix 2 which may assist borough officers in building these working relationships at a local level.

⁵ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/secretary-states-response>

Summary of borough comments

- All boroughs are aiming for zero emission, and cargo bikes are seen as one answer that is deliverable now
- Differing levels of activity, experience and understanding of freight and logistics across and within boroughs
- Policy changes on the way, but currently
 - activity has been centred around travel planning and public realm
 - transport and land use strategies vary, but limited link is being made between urban logistics (B8) and last-mile deliveries
 - officer working on cycle logistics not always fully aware of strategy and work of other boroughs/BIDs
- Available funding not always flexible: non cycle costs
- Desire to do more to achieve zero emission

3. Operator comments and issues

A combination of phone and face-to-face discussions on some key questions took place in February and March 2020 with eight London-based freight operating companies, covering large-scale parcel carriers through to small cargo bike start-ups, using conventional diesel vans, zero-emission vans and a wide variety of cargo bikes.

a. Cargo bikes or zero emission vans?

There appear to be two key factors that influence whether an operator uses cycle freight today in London. The first is effectively an internal company decision, based on the history/company profile and any underlying principles to ensure 'green' or low emission deliveries.

However, as described by one operator of cargo bikes "zero emission is a way in, but it is not the business case; getting the cost right is fundamental". So the second, and perhaps more critical, reason is the physical capabilities of bikes, trikes and vans and the cost and service level demanded by the customer. Operators outlined the need to be able to ensure the delivery occurs on-time and at the agreed price. A range of vehicles is seen as necessary to satisfy all of their customers all of the time and still make a profit.

The net effect of this tends to be that vans are used for delivering larger volumes and for scheduled next day delivery, and bikes for one-off, very local or same day deliveries. The current market for on-demand deliveries is predominately for parcels, and food and drink and these are not always compatible products to carry on one cargo bike.

The growth in e-commerce, and especially on-demand deliveries, is changing the landscape to some degree and congestion levels in central London can mean that small cargo bikes move faster than general traffic. However, while there is a very dense number of potential customers in central London, the amount of operator competition, range of suppliers and supply chains, and sheer number of deliveries reduces individual operator efficiency.

The robustness of cargo bikes also appears to be a problem, especially for high delivery volumes. While van technology has moved on dramatically in the last ten years, cycle freight technology hasn't. Most operators report a serious lack of production robustness with their bikes and the need for continual maintenance. Unlike for vans, there is no current leasing model for cargo bikes; outright ownership is required.

Few large business customers dictate which vehicle their freight operators should use, as they are more concerned with costs. As a result, it was highlighted that some cargo bike firms employ gig workers or pay per delivery to remain competitive. Finally, operators highlighted that cargo bike riders are more exposed to the environment, including the weather and existing air quality issues (although the

impacts of air quality on cyclists is subject to much discussion in the research literature^{6,7}).

b. Urban logistics hub locations

Cargo bikes are limited to a 2 to 3km radius of the logistics facility to be efficient. E-cargo bikes and trikes can extend that radius and if EVs are used an ideal location would extend to 7 to 8 kms, i.e. between the North, and South Circular (A406) and the Congestion Charge Zone.

Operators are currently using facilities from about 200m² upwards, but the precise sizing depends on the type of vehicle used (courier bike, cargo bike, trike, or van), the number of vehicle parking spaces required, and the volume of goods passing through the facility. (NB same day deliveries don't always require a hub facility.)

The smallest microhubs for cargo bikes are about 100m², although smaller sites could be a practical location for basing porters (i.e. delivery walkers) or for customer collection hubs. The conversion of existing car parks was mentioned, partly as the City of London are known to be considering this option.

The volume handled by operators at a site currently varies from 300 parcels a day to many thousands, and access by HGVs is required for any high-volume activity. Unfettered access by HGV requires much more space for vehicle manoeuvring and potentially a 4.95m clear height, which makes repurposing many existing car parks difficult. Access to utilities (i.e. water for staff welfare facilities and electricity for vehicle charging) and 24/7 site security, such as fencing and cameras, are also required.

c. Regulations and Borough assistance

The availability of suitable property or logistics sites close to central London was mentioned by all operators without prompting and increasing the supply is seen as critical. Options suggested to achieve this included:

- greater use of the land use planning system to increase the long-term supply of last-mile facilities by mandating logistics or good reception space for new developments
- Boroughs increasing the visibility of any potential land or sites by collating information (even if they didn't provide the site themselves)
- Boroughs providing space at reasonable rent using set criteria, e.g. similar to that used for social housing

Operators reported issues with the availability of parking and loading space, both on their sites and at the kerb, and the regulatory alignment between boroughs. Local regulatory issues were also highlighted such as the London Lorry Control Scheme,

⁶ <https://environment.leeds.ac.uk/transport/news/article/338/investigating-commuter-exposure-to-air-pollution-in-leeds>

⁷ <https://www.researchgate.net/publication/15608315> The exposure of cyclists car drivers and pedestrians to traffic-related air pollutants

limiting the ability to make deliveries between 7pm and 7am (which could then be delivered by bike the next day), and local zero emission streets that limit the flexibility of vehicle fleets.

The biggest regulatory problem identified is the urgent need to update existing UK national regulations to cover all sizes of e-cargo bikes and trikes (and pedicabs), and electric powered trolleys or e-walkers (an electrically assisted update of the Royal Mail trolley). The Department for Transport has put out a Call for Evidence on the 'Future of Transport Regulatory Review', which is open until 22 May 2020. While focused on micromobility (and topics such as autonomous vehicles) it is hoped that regulatory changes can quickly follow to provide greater clarity to operators in the use of cycle lanes, licencing and rider training, and more flexibility in carrying capacity and vehicle range.

Operators recognise Boroughs cannot force businesses to change to cargo bikes, and it is often easier to control the first mile (e.g. waste and business collections). However, the increase in the number of cycle lanes is seen as very useful for smaller cargo bikes and local business liaison is considered very helpful (especially that provided by CRP). Initiatives such as promoting zero car days could also be of assistance.

d. Sharing facilities and funding

When discussing sharing facilities, operators are concerned about commercial conflicts of interest (e.g. branding, effect on share price) and confusion between different business models (e.g. employment v gig workers). However, some sub-contracting of work already occurs between operators in London.

Clear selling points for shared facilities could be potential cost savings or the ability to offer speedier service. Although, one operator suggested to get wholesale cooperation in the logistics sector would "need a stick not a carrot" i.e. regulation.

Public funding is seen as potentially distorting the market as any long-term model needs to be commercially viable. However, it could be necessary to attract shippers, operators or receivers to try new options.

e. Potential trials

Operators appear interested in future trials that tackle new or unproven concepts. Topics suggested included: new vehicles for regulatory approval; the availability and affordability of different property (e.g. shared sites, temporary usage of a site intended for future development, or repurposing retail space); and expansion of the use of rendezvous or 'kissing' points, to drop off/bring back collections as trialled briefly in the Freight Traffic control 2050 project⁸ (e.g. for porters, or to leave the bikes, charged, maintained, equipment to repair damaged boxes points).

⁸ <http://www.ftc2050.com/>

Summary of operator comments

- The customer is king: zero emission is great, but cost must be right
- Delivering volume currently requires vans, as high-volume cargo bikes are not yet robust enough
- Regulations need establishing and clarification for e-powered bikes, trikes etc.
- Existing regulations affecting deliveries may disincentivize use of cargo bikes
- Operator hesitancy in the potential for sharing facilities
- The social impacts of the gig economy may need to be considered for low-cost cargo bike deliveries

4. Case studies (see appendix 3 for maps and pictures)

a) Berlin Senate – KoMoDo project

The Berlin KoMoDo project (Kooperative Nutzung von Mikrodepots) was an 18-month project funded by the German National Government and the City of Berlin (Berlin Senate). The City provided the temporary logistics facility (6 shipping containers with rain-proof canopies, located in an open-air carpark), utilities and shared facilities (electricity, toilets etc) and 24/7 site security.

The project commenced with six cargo bike operators, which has now reduced to four (DHL, DPD, Hermes, GIS). One operator ceased trading and one left as the site location led to inefficiencies in their business model. Rent is paid by the operators as are all staff and other business costs.

Public reaction has been very favourable, and the only issues raised were with site security, as the initial temporary fence wasn't strong enough. While the City has been disappointed that volumes have remained fairly low, the project has been extended for an extra twelve months and is due to be extended again with 2 new sites.

These new sites are planned to be permanent facilities and will be open to operators of any zero-emission vehicle. It is hoped this will increase the volumes being delivered by zero emission vehicles (including cargo bikes) and assist the City in determining future strategy on managing delivery activity.

b) Sydney Central Business District Courier Hub, Transport for New South Wales (TfNSW)

The Courier Hub project was developed to assist in mitigating local traffic disruption generated by the construction of several large infrastructure projects, including a light rail scheme to service the CBD.

The hub utilises a disused wash bay at the entrance to Goulburn Street Car Park, which is owned by the City of Sydney. The hub has been operating for nearly four

years and provides short term parking spots for couriers to drop off goods, a bank of secure lockers and four cages for bulky items.

The hub works as an open access multiuser facility and there are seven companies that regularly use the site. While it could be described as a microhub, it is effectively a deconsolidation site, increasing the efficiency of walking and cycling couriers making last mile pick-ups and deliveries in a CBD environment.

TfNSW believe the hub has delivered significant economic and environmental benefits relative to its size and has effectively demonstrated 'proof of concept'. An assessment conducted by TfNSW established that on a daily basis, on average, 19 fewer vehicles entered the CBD, saving 50% of vehicle emissions and over 9 hours of driver time.

5. Current borough / BID activity to note

Several local initiatives are ongoing, for example the CRP Clean Air Villages 2 and funding from the Energy Savings Trust enabling Boroughs to purchase cargo bikes and loan them to businesses.

Business Improvement Districts

Several BIDs are promoting the use of cargo bikes, such as the Team London Bridge 'Bikes for Business programme'. This programme works with individual businesses to change deliveries to cargo bike, including providing subsidies to support this activity and monitoring progress.

This matchmaking activity has been enhanced by the development of a [services directory](#) of cargo bike operators and businesses offering services by bike. While these are mainly food and drink deliveries, it includes an electrician and some office service activity. With appropriate support, this approach could be expanded geographically or in the range of services being offered.

A new initiative by Better Bankside BID has been to tender for an operator to run a 1,900ft² consolidation operation for the bulk reception, warehousing and call-off delivery of goods for 10 or more individual businesses. The project is a combination of consolidation and cycle deliveries and it will be interesting to monitor the uptake and understand if businesses benefit sufficiently to fund similar operations in the future.

City of London

The City of London appears to one step ahead of the other Central London Boroughs in their understanding and awareness of how to deliver change in freight activity. The City has imposed planning conditions on several new developments, has developed a project to utilise redundant City of London car parks as logistics hubs, and has a draft land use strategy that is proposing to require new logistics hubs as part of the planning system.

Sharing and comparing the City's approach with other boroughs through discussion between borough officers from different disciplines (e.g. transport planning, air quality, land use planning, engineering and design) could increase the levels of knowledge, the understanding of different approaches and help deliver more change. This could contribute to ongoing professional development, involving external experts where appropriate, and be facilitated by CRP, London Councils or the CLS RTP.

Cross River Partnership

As part of its Clean Air Villages programme, CRP has showcased a number of sector specific cycle logistics applications and models of deployment including [subcontracted deliveries](#), small businesses operating their own cycles, and [shared cycles for multiple businesses](#). Through its Covid-19 response their shared cargo cycles have been supporting essential deliveries such as those made by pharmacies delivering medicines to vulnerable people. An [online directory of ultra-low emission suppliers](#) has also been developed.

SHARED ELECTRIC CARGO BIKE FOR STREATHAM BUSINESSES

BUSINESS
CASE
STUDY

InStreatham BID and Balfe's Bikes Collaborate to Run a Shared E-cargo Bike Service



"This pilot will encourage a range of local businesses to use a zero emission vehicle to transport goods, which we hope will introduce long term behaviour changes that will improve local air quality and also be good for trade."

Louise Abbotts (Project Manager, InStreatham BID)

6. Managing urban freight

Examination of the range of measures adopted by businesses, freight operators and cities to reduce the impact of delivery and servicing activity suggests there is a very limited range of options available.

Effective urban freight management draws on a range of individual measures to minimise the number of road freight trips by diesel vehicles, match the freight demand to the route, time and availability of delivery locations on the road network, and to mitigate the impacts of the trips that are left; with safe, clean and quiet deliveries. Some of these measures are solutions (e.g. modal change) while others (e.g. Delivery & Servicing Plans) are measures to assess and manage freight trips for individual premises or wider areas.

The objective is a safe, zero emission, decarbonised and efficient logistics process, so that customers get their deliveries, but that London doesn't bear the negative externalities.

For London, this type of approach is discussed in the Mayor's Transport Strategy⁹ but is summarised in the Framework in figure 2.


| | | |
|---|-------------------|---|
| Minimise road freight trips | Modal Shift |  |
| | Land Use Planning | |
| | Consolidation | |
| Match demand to network and location | Retime | |
| | Re-route | |
| | Change location | |
| Mitigate impact | Safer | |
| | Cleaner | |
| | Quiet | |

Figure 2 – options for managing freight activity (© FCL 2020)

The framework suggests that simply replacing one diesel van with clean cargo bike is unlikely to be enough to deliver wholesale change. However, developing the links to other solutions (e.g. consolidation, land use planning or retiming deliveries) could have a much greater impact.

⁹ <https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf>

7. Data requirements for any new trial

The data requirements for any new trial will depend on what trial takes place and how comprehensive the evaluation needs to be. Factors could include:

- aspects of the vehicle while it is moving (e.g. speed, routeing, scheduling, legality etc.),
- parking/stopping activity (e.g. on- or off-street, duration, impacts to other road users/pedestrians),
- fuel use (and related CO₂ and air pollutant emissions) and
- road safety.

For the Freight Traffic Control 2050 project¹⁰ this required collection of manual data such as the size and weight of goods delivered and the use of GPS monitors and cameras. To analyse cargo bike activity, it may be necessary to assess differing sizes of cargo bike and the impact on the pavement and the extent to bikes are hindered by and/or hinder the traffic flow.

8. Areas for focus

Leadership and knowledge

All CLSRTP boroughs are attempting to manage local freight issues to improve air quality and decarbonise activity within the borough. Increasing the level of change occurring requires a greater focus or leadership on freight management and particularly on enabling more zero emission deliveries.

A central source of information or greater coordination would seem to be useful, as currently every borough appears to be working individually. There is certainly a need to increase the awareness and understanding of many borough officers, including those working in land use planning, property management, transport and environment. Sharing knowledge on the use of planning policy and the outcomes from conditions applied to new developments will certainly be critical, as this is a rapidly evolving approach to managing freight activity.

Increasing the overall consistency of approach between boroughs, where appropriate, would reduce complexity and simplify the message to both operators and businesses. Increased regulatory consistency and added clarity on kerbside activity, cycle lane usage and new vehicles (e-mobility, e-cargo bikes and e-walkers) may also help.

Potential actions:

- a. Develop a programme of mentoring, training and awareness raising for borough officers covering in land use planning, property management, transport and environment.

¹⁰ <http://www.ftc2050.com/>

- b. Develop an approach to sharing information between the officers involved with freight policy and the implementation of freight related project activity, such as the current cargo bike projects.
- c. This sharing of policy, initiatives and successes could be developed (with relevant funding) to provide core freight officers that could work across the CLSRTP boroughs.
- d. Provide a CLSRTP response to the current Department for Transport consultation on e-mobility (by 22 May 2020) and, if appropriate, propose a working group to consider the issues, liaise with other national stakeholders and provide feedback to DfT on any issues raised.

Stakeholders

Localised business engagement is helping to inform businesses and encourage sustainable procurement and deliveries, and is warmly welcomed by operators. Currently, engagement is focused on parcel deliveries and some food and catering establishments and expanding the activity to stakeholders from different sectors of freight activity (such as facilities management and construction) would provide greater understanding and awareness.

Engagement with stakeholders must be relevant and proportionate to be of benefit to both parties. TfL gained great assistance from freight stakeholders in identifying the information and developing the messaging needed by the industry to keep delivering during the 2012 Olympic and Paralympic Games. However, after the Games the industry became less involved and some stakeholders have reverted to a more confrontational approach, especially to the development of new policy.

Engaging with larger Stakeholders about central London issues has occurred through the Central London Freight Quality Partnership, which receives some funding from CRP. The FQP has been running for over 15 years, and acts as an information dissemination and discussion forum. It has a limited number of attendees which may restrict the topics covered and may not encourage the sharing of individual borough issues.

Potential actions:

- e. Review the role of the Central London Freight Quality Partnership and levels of engagement, dissemination, and involvement expected from borough and operator attendees.
- f. Review engagement with freight industry to ensure relevant sector discussion and engagement occurs to assist with delivery of borough outcomes.

Site availability

The lack of new logistics sites or land available in central London for developing facilities severely restricts the choice of vehicles available to freight operators. Reusing or repurposing existing sites or buildings may be hampered by structural issues (e.g. access height) or regulations (e.g. delivery time restrictions).

The draft London Plan requires the 'retention, enhancement and provision of additional industrial capacity ... to be planned, monitored and managed'. While traditionally seen to be large warehouses, this industrial capacity for logistics activity has included railway arches and old car parks, and will now include new facilities being required for large new developments in the City of London.

These issues can be addressed piecemeal, but a clear statement of future intention could be provided in the development of new land use, transport or area-based plans. Increased consistency between corresponding policies in these and local air quality and environmental strategies to policies in other boroughs will help to drive change now and clarify the message for the developers of new sites.

Potential actions:

- g. Collate existing borough policies the seek to manage freight activity and any negative externalities (e.g. poor air quality) and review combined impact of these and pan-London policies.
- h. Share policy and planning approaches between boroughs to understand what works where and why, and develop a core common approach covering both land use and transport planning.

9. Potential pilot projects

Operators are keen to be involved in trials that address new or unproven concepts and boroughs appear willing to be involved, subject to funding and political support. Potential pilot projects evolving from this research are:

a. Cargo bikes for servicing activity

Cargo bikes can carry approximately half the volume of a van. A high proportion of freight activity in Central London is servicing vehicles, from maintenance engineers to florists replacing hotel displays, and many could be replaced with cargo bikes.

Any trial would require engagement with both servicing and facilities management companies to identify suitable trial location(s) and activity. The involvement of recognised sector leaders would be ideal to generate maximum publicity.

b. Exchange/'kissing point' for cargo bikes and/or porters

The Freight Traffic Control 2050 project and the Goulborn Street Hub in Sydney demonstrate the potential for the exchange of product, a so-called 'kissing point'. This is sometimes called micro-consolidation by mistake, as it is moving goods from a larger vehicle to a number of smaller ones (or porters) and is effectively 'un-consolidation'.

Any trial would require engagement with operators and property experts to identify suitable trial location(s) and activity. The involvement of recognised sector leaders would be ideal to generate maximum publicity.

c. A 'white label' trial

The principle of a 'white label' trial is for all deliveries into a specific area are made by one freight operator. The City of London has recently imposed planning conditions requiring consolidation for new, large-scale, developments. This is a version of a 'white label' delivery, as the majority of goods will only be delivered to the building by one operator.

Extending this approach to a group of premises or street has not yet occurred. Legal advice would be necessary, as challenge from operators would be expected concerning competition implications. Involvement of a landowner or developer would be required, and an extended project planning phase should be anticipated.

Appendix 1

Comments on 2019 Report recommendations

| Recommendations | Comments based on this research |
|---|---|
| Identify opportunities for cycle freight within the borough | This should include opportunities for borough procurement by, and potential sites for, cargo bikes and/or zero emission vehicle (ZEV) delivery |
| Engage with industry | This is difficult for individual boroughs to do effectively. The Central London Freight Quality Partnership has fulfilled this role and could be reconstituted to assist boroughs if required |
| Lead by example | This must be a priority. If boroughs adopted their procurement activity to ensure the sustainability of freight activity (covering both social and environmental sustainability) this would provide a clear lead for the freight industry (as has happened with FORS and CLOCS). A specific focus could be placed on cargo bikes, but this could increase costs and inefficiencies for the borough and operational issues for operators who do not have a local facility. |
| Make space for logistics hubs and bike parking | Three separate elements to this: 1) protect exiting industrial land (and consider new facilities) 2) ensure land use planning addresses the requirement for logistics hub for large developments 3) review existing estate for practical spaces (and possibly short-term use) |
| Continue to implement cycle friendly infrastructure | This is useful for cycle freight provided it allows for safe deliveries by ZEV for all premises. National Government confirmation of regulations for trikes and all sizes of e-bikes would be useful |
| Develop cycle freight strategy | There needs to be an overall borough approach to freight activity that covers both land use and transport. From this the cycle freight strategy can be developed. For some boroughs this may be a recognition of the Mayor's Transport Strategy and London Plan policies and recommendations. However, greater local recognition of freight, including cycle freight, and training for borough officers would enable change to occur more rapidly |
| Engage with other novel modes of transport | This feels a bit too 'big picture' to be addressed separately by each borough and may be better coordinated by TfL |

| | |
|--|--|
| <p>Bigger picture – support London-wide cycle freight activity</p> | <p>Most operators don't see borough boundaries as deliveries tend to be managed by postcode and volume. Greater coordination of borough loading and unloading regulations and assisting TfL and London Councils with understanding the impacts the existing separate regulations (ULEZ, DVS and LLCS*) would be helpful.</p> <p>(*While Mayoral policies cover the ULEZ and Direct Vision Standard, London Councils on behalf of the boroughs controls the London Lorry Control Scheme, which is designed to address noise from freight vehicles and prevent HGV through traffic overnight.)</p> |
|--|--|

Appendix 2

Urban Logistics Hub – generic specification

Historically, logistics in cities was limited to general markets and local producers as demonstrated by streets such as Haymarket and Ropemaker Street in the heart of London. The growth of railways and the internal combustion engine drove a gradual evolution to premises getting larger and more geographically dispersed in all cities¹¹. This change has enabled greater levels of mechanisation in warehouses and minimised the amount of bulk transportation required, minimising the cost of goods for producers and consumers.

Change has occurred, particularly in the last 10 years, with the move to higher levels of just-in-time and on-demand deliveries (and particularly e-commerce), coupled with the use of limited mileage, zero emission vehicles for the 'last mile'. These changes are generating greater demand but costs are escalating even quicker, meaning new solutions are being investigated.

Urban logistics hubs are one such solution, and as a relatively new approach being trialled in several different ways there is no generic specification. Discussion with operators on this issue suggests that “they’ll know when they see it” which isn’t helpful, so the list below is provided to outline the key requirements:

Ideal Hub requirements:

- Location: 4-6 kms from a larger logistics facility to provide the link to the company distribution network. (In London cargo bike locations need to be very central but ZEV locations could be between the North/South Circular (A406) and the Congestion Charge Zone)
- Access: Ground floor with level access for a 44T HGV
- Size: 200m² upwards, precise sizing dependant on type of vehicle used (courier bike, cargo bike, trike, or van), the number of vehicle parking spaces required, and the volume of goods passing through the facility. Smaller sites could be used as a base for (i.e. delivery walkers) or for customer collection.
- Facilities on site:
 - Toilets and other staff welfare facilities
 - Suitable electricity supply for vehicle charging
 - 24/7 site security and relevant fencing, cameras, etc.
- Flexibility: operator volumes change over time and a supply of different Hubs is needed for a dynamic property market, as occurs in other sectors. This will include different types and sizes, and some vacant facilities to enable operators to move site as necessary.

¹¹ For a detailed case study see [“Atlas des Grandes Fonctions Métropolitaines Logistique”](#) ATELIER PARISIEN D’URBANISME, June 2017

Appendix 3 – Case Study information

Berlin – KoMoDo Project

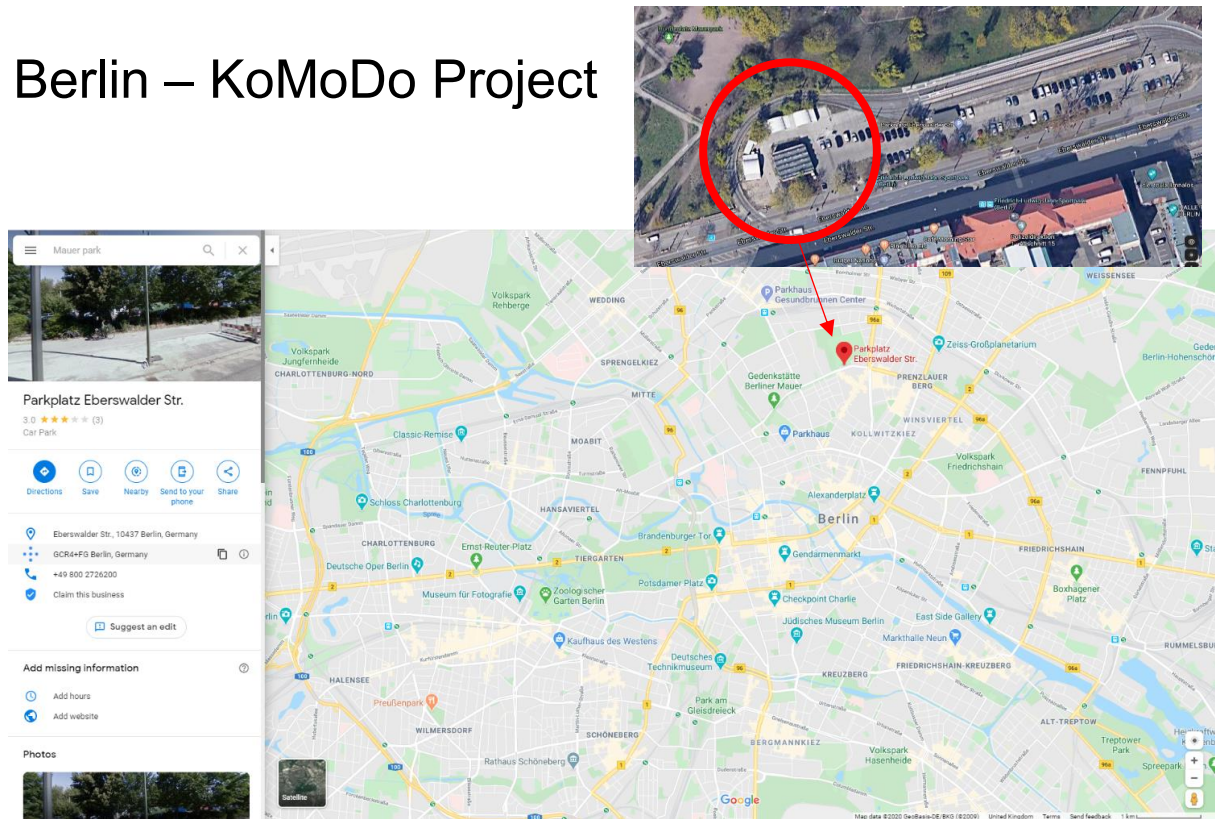


Figure 3 – operational activity KoMoDo project Berlin November 2019 (© FCL 2019)

Sydney – Courier Hub

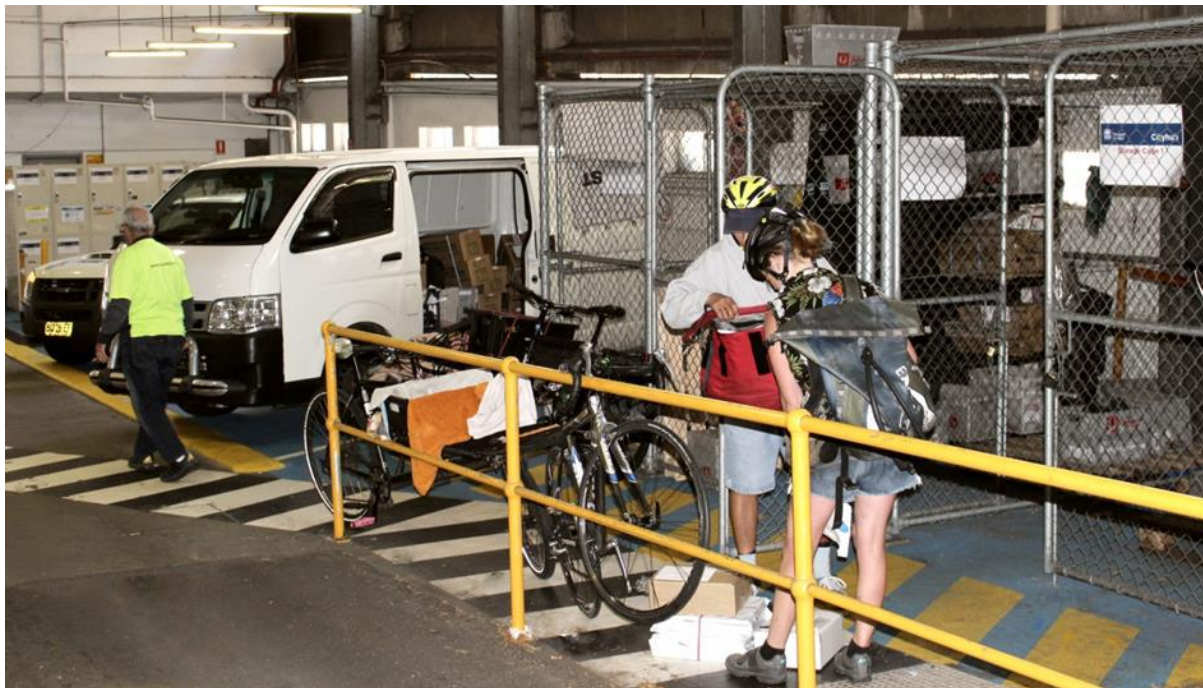
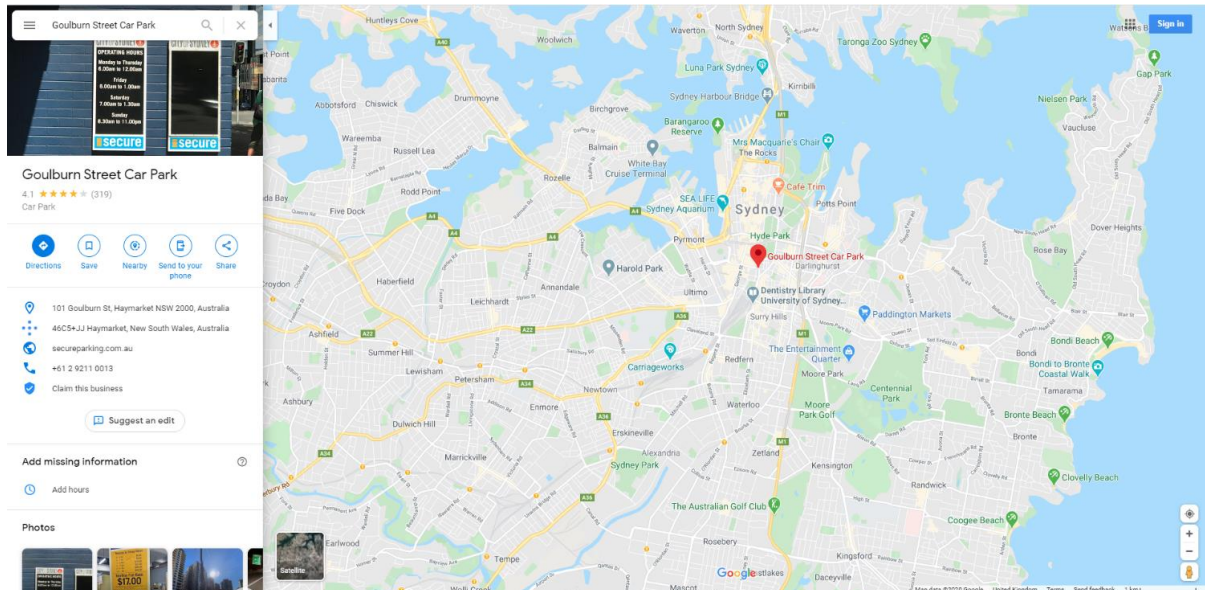


Figure 4 – operational activity Goulburn Street Car Park, Sydney, Australia (used by permission TfNSW)

Definitions:

Cycle freight = cycle couriers, cargo bikes and e-cargo bikes, cycle e-trikes

Van – all size of van – i.e. between 1.25t and 3.5 tonnes (and the derogation to 4.25t to include electric batteries for alternative fuelled vans.)

Urban logistics hubs = covers existing urban (rather than sub-urban facilities through to micro hubs, without a definition of size)

ZEV = Zero Emission Vehicle

LEV = Low Emission Vehicle

Thanks to:

Berlin Senate
 Better Bankside
 City of London
 City of Westminster
 Cross River Partnership
 DHL
 Ecofleet
 FedEx/TNT
 Gnewt/Menzies
 Greater London Authority
 Hermes
 London Borough of Camden
 London Borough of Hackney
 London Borough of Islington
 London Borough of Lambeth
 London Borough of Southwark
 Mango
 Royal Borough of Kensington and Chelsea
 Team London Bridge
 Transport for London
 Transport for New South Wales
 UPS
 Zedify