



WestminsterResearch

<http://www.wmin.ac.uk/westminsterresearch>

Comparing freight transport strategies and measures in London and Paris.

Michael Browne¹

Julian Allen¹

Mahmoud Attlassy²

¹ Transport Studies Group, School of Architecture and the Built Environment, University of Westminster

² Laboratoire d'Economie des Transports, Lyon

This is an electronic author version of an article published in the International Journal of Logistics, 10 (3). pp. 205-219, September 2007. The definitive version in the International Journal of Logistics is available online at:

<http://dx.doi.org/10.1080/13675560701467052>

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners. Users are permitted to download and/or print one copy for non-commercial private study or research. Further distribution and any use of material from within this archive for profit-making enterprises or for commercial gain is strictly forbidden.

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch. (<http://www.wmin.ac.uk/westminsterresearch>).

In case of abuse or copyright appearing without permission e-mail wattsn@wmin.ac.uk.

COMPARING FREIGHT TRANSPORT STRATEGIES AND MEASURES IN LONDON AND PARIS

Michael Browne and Julian Allen

Transport Studies Group, University of Westminster, London

Mahmoud Attlassy

Laboratoire d'Economie des Transports, Lyon

Corresponding Author

Michael Browne

*Transport Studies Group,
University of Westminster,
35 Marylebone Road,
London,
NW1 5LS*

Tel: 020 7911 5154

Fax: 020 7911 5057

Email: M.Browne@westminster.ac.uk

Abstract

The paper compares the approach being taken to freight transport strategy and the specific policy measures being implemented in London and Paris. It highlights the serious consideration that has been given to freight transport by the Mayors of London and Paris in the last five years. These freight policy considerations are taking place against a background of growing levels of road freight activity, energy use and pollutant emissions in both cities. The key freight transport objectives being followed in London and Paris are similar and focus on improving the efficiency and reliability of freight transport while reducing the negative environmental impacts that it causes. The specific freight transport policy measures being followed show some differences in each city. However, attempts to address problems related to loading and unloading are taking place in both, albeit through different specific initiatives. These policy initiatives have important implications for companies concerned with urban logistics operations.

Keywords: London, Paris, urban, freight, policy

1. Introduction

The aim of the paper is to compare the approach being taken on freight transport policy by urban authorities in these two major European cities. It begins by providing background information about the two cities and an overview of the freight transport activity that takes place. The paper then provides insight into the freight transport strategies being developed in both cities and the process by which this is achieved. This is of importance to policy makers in other towns and cities who are in the process of developing and building on their own freight strategies. The specific freight transport policy measures being implemented in both cities are then considered. Five freight transport initiatives that are being developed or have been implemented in both London and Paris are compared and contrasted in detail, namely: loading/unloading, vehicle access times, professionalisation of the distribution industry, cleaner goods vehicles and modal shift.

The research has been carried out through in-depth interviews with a range of actors in urban freight transport in both Paris and London, together with a detailed literature review. An initial phase of the research took place in 2005/6 which considered some of the initial freight strategies being pursued in London and Paris (Attklassy, 2006). This research has continued and supplemented with further work during 2006.

1.1 Background to freight transport and policy making in London and Paris

London and Paris are two of the largest capital cities in the western world with a major importance for their national economies. Both are transforming into “24-hour” cities and this has major consequences in terms of reliable and quick access to products and services which requires a reliable and responsive freight transport and logistics system. The quality of these logistics services plays a major role in determining the future economic success of the cities and the companies based there.

While those living and working in both cities benefit from these freight transport and logistics services, they also experience the negative impacts associated with freight transport operations in terms of factors, including pollutant emissions, disturbance noise and risk of traffic accidents.

The urban authorities in both cities are responsible for developing freight transport strategies that accommodate both of the above perspectives: encouraging economic growth and competitiveness, while at the same time protecting city dwellers from the potentially harmful consequences of these activities. Table 1 provides a comparison of population, area and GDP in the two cities. The City of Paris is in the “Ile de France” region. The Ile de France region includes eight “departments”. The central sub-region referred to as “la petite couronne” includes the city of Paris and three “departments” (Val de Marne, Seine St Denis, Hauts de Seine).

Table 1: London and Paris, 2004: population, size and economy compared

	Greater London	City of Paris	Ile-de-France
Population (million)	7	2	11
Area (km ²)	1,570	105	12,010
GDP (billion euros)	380	NA	469

Sources: Eurostat, 2007; National Statistics, 2006; Ripert, 2006.

2. Freight activity in London and Paris

Table 2 provides a comparison of freight activity in London and Paris.

Table 2: Freight lifted in London and Paris in 2004 (in million tonnes)

	Greater London	City of Paris	Ile-de-France
Road	150	28.5	274.5
Waterborne	1.6 (within London)	2	19
Rail	1.1 (within London)	1	16.5
TOTAL	152.7	31.5	310

Source: Department for Transport, 2005a and 2005b; Ripert, 2006.

2.1 Freight activity in London

In 2004, 150 million tonnes of road freight, lifted by vehicles with gross weight of over 3.5 tonnes, had its origin and/or destination in Greater London. Both the origin and destination were in London for 64 million tonnes (DfT, 2005a). The freight lifted in London represents approximately 9% of the total freight lifted in Britain by weight.

Commercial vehicles for freight and servicing account for approximately 14 per cent of the total vehicle flow on major roads in London (measured in terms of vehicle kilometres) (TfL, 2004a). The total number of goods vehicles (light, medium and heavy goods vehicles added together) crossing the Greater London and Inner London Boundary cordons have risen over the past ten years, but fell at the central cordon by 8% between 2001 and 2003 (TfL, 2004a). The types of goods vehicles entering London have been changing, with the number of light goods vehicles increasingly sharply and the number of medium goods vehicles falling (TfL, 2004a). It has been estimated that road freight transport is responsible for more than a quarter of the carbon dioxide produced by transport in London (including rail and aviation - TfL, 2004b).

Sea-going freight traffic through the Port of London, which is the third largest port in the UK, was 55 million tonnes in 2004. In 2004, 1.6 million tonnes of internal freight traffic was handled on the Thames (compared with 2.0 million tonnes in 1990 and 1.9 million tonnes in 2000) (DfT, 2005b). Much of this is waste and aggregate.

It has been calculated that 1.1 million tonnes of rail freight was lifted and delivered in London in 2000. In addition, 4.7 million tonnes of goods were received in London from rest of Britain by rail and 2 million tonnes were sent by rail from London to the rest of Britain (Ove Arup, 2003).

2.2 Freight activity in Paris

Goods transported by road in Paris are estimated to generate 1.6 million deliveries and/or collections per week (Baybars and Dablanc, 2004). Road freight transport vehicle kilometres are forecast to increase by 11% by 2020 in the Ile-de-France region (Ripert, 2006).

Road freight vehicles (goods vehicles and vans) account for approximately 12% of total road traffic in Paris (vans represent 9% of traffic and goods vehicles 3%) (Mairie de Paris, 2003). Road freight vehicles account for approximately 18% of road traffic on the peripherique corridor (the internal highway on the boundary of Paris and the inner circle of the boulevards) (Baybars and Dablanc, 2004). It has been estimated that road freight transport accounts for 25% of the total road transport energy consumed in Ile-de-France region (Ripert, 2006). Road freight is estimated to be responsible for 60% of total particulate emissions by road transport, 26% of greenhouse gas emissions, and 20% of NOx emissions (Ripert, 2006).

A greater proportion of freight is transported by water in the City of Paris than in many other French cities. Waterborne freight represents approximately 6% of total freight moved by road, rail and water in Paris (Ripert, 2006). Building materials including cement and concrete represent much of this waterborne traffic. However waterborne freight volumes declined from 2.8 million tonnes in 1995 to 1.9

million tonnes in 2004 (Ripert, 2006). Rail freight accounts for approximately 1 million tonnes per annum (approximately 3% of total freight handled in Paris). In the Ile-de-France region waterborne and rail freight account for approximately 6% and 5% of total freight handled respectively. Much of the rail freight in the Ile-de-France region is transit traffic (Ripert, 2006).

This summary of freight transport activity in London and Paris indicates that road is the dominant mode in both cities and will continue to be so in future. Freight transport and the other users of roads are placing the road infrastructure under much pressure. It is within this context that opportunities for improving freight and servicing traffic are being investigated to reduce conflicts between users and improve the management and flow of freight traffic

3. Freight transport strategy and policy development in London and Paris

In the past, in both London and Paris, urban freight considerations have received little attention and have been poorly integrated into other transport policies. This situation has improved substantially in the last five years.

In London, the establishment of the post of Mayor, together with the formation of the Greater London Authority (GLA) and the role played by Transport for London (TfL) has resulted in freight transport issues receiving far greater attention than previously. The Mayor's Transport Strategy (MTS) explicitly addresses freight transport in the capital (Mayor of London, 2001). The Mayor and TfL have created a Freight Transport Unit and established the London Sustainable Distribution Partnership (LSDP) which has been used as a forum to consult a wide range of stakeholders about freight issues and potential solutions. Stakeholders include the London boroughs, distribution companies, trade associations, and other public bodies in order to ensure that economic and environmental needs are addressed. A Working Group of the LSDP identified a vision for freight in London in 2004/5. This vision is for "the safe reliable and efficient movement of freight and servicing trips to, from, within, and where appropriate, through London to support London's economy in balance with the needs of other transport users, London's environment and Londoners' quality of life" (TfL, 2006a). Freight issues are also being considered at the sub-regional and local level in London through Freight Quality Partnerships (FQPs) that are partly funded by TfL. These involve joint-working between local authorities, the business community, residents, and environmental groups. A draft London Freight Plan was published by TfL in June 2006 for consultation, and a final version of this Plan is due to be published in 2007 (TfL, 2006a).

The city of Paris affirmed the importance of freight in its transport and street management policies of 2002. As in London, the Mayor of Paris is attempting to reconcile the two objectives of supporting the efficient movement of freight transport and limiting its negative impacts. Freight transport has been long neglected in the management of urban space and the policies of mobility in Paris. However, in 2002, freight was directly addressed as part of the development of the new transport policy "Plan de Déplacement de Paris" (PDP). The PDP is a Statutory Plan. As a result of freight transport work as part of the PDP dialogue was started with various stakeholders including the distribution companies and other commercial organisations involved. This consultation process is a new development: freight companies had not previously been involved in the discussion and design of transport strategies and policy measures. Initial stakeholder consultation has been completed, and a draft of the PDP has been passed to the Council of Paris for consideration (Mairie de Paris, 2007). It is expected that the final PDP will be published in 2007. To be as effective as possible, this new Parisian policy will have to be part of an action plan elaborated at a regional scale (Plan de Déplacement Urbain Ile-de-France, PDUIF). However, the position granted to urban freight in the PDUIF remains weak with respect to other types of movements, such as the private cars movement and the lobbying in favour of buses. A Charter of Good Practice for Transport and Goods delivery in Paris was published by the Mayor of Paris in 2006. This Charter is a non-statutory initiative that has taken many of the freight transport objectives of the PDP and incorporated these into a voluntary scheme for goods delivery in Paris intended for the distribution industry and its users together with public bodies (Mairie de Paris, 2006).

Table 3 compares the key objectives of the Mayor of London's Transport Strategy for freight, and the Mayor of Paris' "Plan de Déplacement de Paris".

Table 3: Comparison of freight transport objectives in London and Paris

London - The Mayor's Transport Strategy (Mayor of London, 2001)	Paris - Plan de Déplacement de Paris (interviews and Mairie de Paris, 2005)
<ul style="list-style-type: none"> • ensure efficiency and reliability of freight distribution • minimise the adverse environmental impact of freight transport and servicing • foster shift of freight from road to more sustainable modes • minimise the impact of congestion 	<ul style="list-style-type: none"> • optimise the distribution of goods in the arrondissements of Paris • control the harmful effects generated by urban freight transport • to better manage goods flow into and out of the city, by bringing about modal shift from road to rail and waterways

As already mentioned, a Charter of Good Practice for Transport and Goods delivery in Paris was published in 2006 (Mairie de Paris, 2006), and a draft London Freight Plan was published by TfL in June 2006 (TfL, 2006a). These are the two most important documents in terms of explaining the principles and objectives of the freight strategies being established in the two cities. The contents of these documents are compared below.

The Paris Charter contains several major objectives. It aims to enhance liveability, by reducing noise nuisance, visual intrusion, and other negative impacts of freight operations. Progress towards this will be made by the Mayor in collaboration with all relevant freight transport stakeholders including shippers, forwarders, receivers and transport and logistics organisations. The scope of the Charter extends beyond just traditional goods - it is also concerned with waste, industrial products, office deliveries, and materials for construction and building sites. Both technological and behavioural changes will be sought to achieve a more liveable city. The Charter is aiming to influence both upstream (i.e. goods destined for Paris) and downstream (i.e. last kilometre delivery operation in the city) supply chain operations. Upstream operations should consider rail and river opportunities, while downstream operations are to be improved through promotion of the use of clean goods vehicles.

The Paris Charter promotes the idea that those stakeholders involved in urban freight activities will need to make changes to their operations but will also experience benefits as a result of these changes (this is referred to as “give-give” in order to produce “win-win” outcomes). The Charter is based around the idea of Public-Private Partnership (PPP) with both sectors making contributions in order to achieve the desired outcomes. Increased professionalisation of the freight industry is identified as important in achieving these benefits, as this will result in more efficient and more responsible operations. Increased enforcement of goods (and other) vehicle operations in the city will play a major role in helping to ensure that new regulations are adhered to – this will be supported by the Police. Energy suppliers will help support the Charter through the development and promotion of clean delivery vehicles.

The Mayor of Paris will carry out active management of freight operations and regulations with regular reviews and changes to regulations and actions as needed (especially in relation to delivery bay management), including the harmonisation of existing regulations (such as vehicle access time restrictions). The Mayor will also put in place training schemes which aim to assist the urban goods vehicle driver and will help promote and explain the importance and value of urban goods operations to life in Paris to the public. The Mayor will help to promote freight transport experiments also ensure that all A Follow-Up or Monitoring Committee has been established to oversee the work contained in this Charter on behalf of the Mayor; there will be annual progress reviews. Companies signing up to the Charter will agree to review their use of environmentally friendly goods vehicles and non-road modes, offer specialised training for urban drivers and make a commitment to observe freight transport regulations. Companies have been signing up since June 2006 for a three-year period.

The TfL draft London Freight Plan contains seven high-level aims under three main headings that were developed by a working group (TfL, 2006a):

Economy

- Support London's growth in population and economic activity;
- Improve the efficiency of freight distribution and servicing within London;

- Balance the needs of freight and servicing with those of other transport users and demands for London's resources.

Environment

- Improve air quality in London and contribution to climate change by reducing emissions of local air pollutants and CO₂ caused by freight and servicing;
- Improve quality of life in London by minimising the impact of noise and vibrations caused by freight and servicing.

Society

- Improve health and safety in London by reducing the number of deaths and injuries associated with freight movement and servicing;
- Improve quality of life in London by reducing the negative impacts of freight and servicing on communities.

Eight key proposals have been identified in the Plan in order to bring about more sustainable goods vehicle operations in London. These proposals are grouped under the three themes of 'Encouraging best practice', 'Improving reliability' and 'Promoting sustainable distribution':

Encouraging best practice

- Support the development of sub-regional Freight Quality Partnerships and improved means of communication;
- Produce an annual London Freight Data Report;
- Develop and roll out a programme of freight training in London;
- Develop and roll out the Freight Operator Recognition Scheme in London.

Improving reliability

- Improve reliability of London deliveries and freight movement through regulations, design and best practice.

Promoting sustainable distribution

- Promote modal shift through supply chain reconfiguration and planning changes where economically and environmentally practicable;
- Promote consolidation through supply chain reconfiguration and planning changes where economically and environmentally practicable;
- Promote changes to freight transport specification/fuel through supply chain reconfiguration where economically and environmentally practicable.

The London Freight Plan goes beyond concern with just goods transport to an attempt to influence and alter supply chain organisation in a wide range of sectors so as to enhance sustainability. The success of the Plan is stated to be based on TfL working towards a common understanding and shared objectives with a wide range of stakeholders including freight transport operators and users, the Police, employment and training organisations, and road safety organisations. Professionalisation of the industry, training, modal shift, vehicle technology, supply chain reconfiguration, changes in freight transport regulations and performance measurement are all central to the Plan. TfL will actively carry out major data collection exercises and engagement work with the freight industry in order for the Plan to achieve its objectives. TfL engagement work is already underway in major sectors including: retail, construction, courier, servicing and maintenance, waste, utilities, and oil and chemicals. The LSDP will play an important role in helping to deliver the Plan. In addition, TfL has established Freight Unit to co-ordinate day-day running and implementation of the Plan. FQPs will work towards delivery of the Plan at a local level throughout the city.

Overall it can be seen that there are considerable similarities between the plans for Paris and London. While the details of the various initiatives vary (see later sections), it is evident that some of the same tensions have been identified and that potential initiatives also share some common ground.

4. Specific freight transport policy measures in London and Paris

In both Paris and London, the governing bodies have implemented several initiatives in recent years to attempt to improve the sustainability of freight transport.

The Mayor of London has undertaken several actions through its executive body, Transport for London, to achieve the objectives set out in the Mayor's Transport Strategy. This includes the introduction of the Congestion Charging scheme, commitment to the loading/unloading code of practice, and the proposed introduction of the Low Emission Zone for 2008. TfL has also supported the implementation of Freight Quality Partnerships (FQPs), reviewed the London Lorry Control Scheme and has initiated several studies and demonstration projects in the construction and waste sectors and for rail and water modes. The Mayor of Paris has also implemented several freight transport projects and initiatives, including a major review of delivery arrangements in the city, consolidation centre demonstration projects, promotion of environmentally-friendly delivery vehicles, and projects to encourage modal shift from road to non-road modes. Table 4 lists the specific actions taken in London and Paris in recent years.

Table 4: Freight transport initiatives by city authorities and industrial partners in London and Paris in the last five years

London	Paris
<ul style="list-style-type: none"> • Loading/unloading code of practice • Establishment of construction consolidation centre • London Congestion Charging Scheme • Low Emission Zone (proposed for 2008) • Review of London Lorry Control Scheme • Freight Quality Partnerships • Waterborne transport schemes 	<ul style="list-style-type: none"> • Loading/unloading seven-point action plan • Urban consolidation centres • Clean delivery vehicles • Locker bank initiative for spare parts • Planning for rail and waterborne freight growth • Using mass transit facilities for freight

The following sections compare and contrast the actions being taken by the Mayors of Paris and London in five areas of freight transport in their efforts to increase the sustainability of urban freight operations. These five areas are: loading/unloading, vehicle access times, professionalisation of the distribution industry, cleaner goods vehicles and modal shift.

4.1 Loading and unloading

Both London and Paris are busy cities in which carrying out collection and delivery work is a difficult process. The authorities of both cities have therefore sought to review their approach to loading and unloading issues and issue new guidance and initiatives in the last year.

In Paris the focus has been on the provision of loading bays, the permitted time that can be spent loading and unloading in these bays and greater enforcement of parking and loading regulations. In London a Code of Practice has been established for operators and enforcement organisations to help disseminate and encourage best practice among these parties. In both cities efforts are also being made to harmonise loading and unloading regulations and enforcement operations; in Paris this has taken place on a city-wide basis, while in London some boroughs have chosen to carry out such a review.

The Mayor of Paris has carried out much work into deliveries and collections by goods vehicles in the last three years. This has involved joint working with senders and receivers of goods, freight transport companies and the police. Survey work has demonstrated that delivery bays are occupied by illegally parked vehicles for 47% of the time, are empty for 47% of the time and are used by goods vehicles for collections and deliveries for only 6% of the time (Mairie de Paris, 2006). Analysis of urban freight activity has taken place and new delivery bay standards have been designed. The Mayor of Paris has determined that a network of 10,000 loading bays is required in the city. The location of these bays has been reviewed and the bays will continue to be actively monitored and altered as necessary.

A new 30-minute time limit in these loading bays has been decided on. This has been based on analysis that found the average dwell time of goods vehicles is 14 minutes. Goods vehicle drivers will use a new disc to display their arrival time at the bay. The scheme commenced at the start of 2007. In addition, the use of delivery bays in bus lanes will be limited to freight professionals in lorries and vans for delivery and collection work. It is planned to introduce this for all bus lanes in Paris within three years. The only exception to this will be local residents who will also be able to use the loading bays

for collections and deliveries for up to 30 minutes as long as they display a valid residents' permit. Companies that sign up to the charter (described in a later section) will be allowed to stay in a loading bay for up to one hour if they have more than 3 tonnes of goods to deliver or collect but will need to be able to provide the necessary proof if requested.

Police enforcement of illegal parking and loading will also be increased. Analysis suggests that, until now, 75% of deliveries are not made legally. However, relatively few fines have been issued. In the short-term those employed to enforce the loading regulations will receive additional training, alongside the introduction of these new regulations. In the longer-term a dedicated team of enforcement officers will be employed.

In London, a Loading/Unloading Code of Practice was launched in January 2006. The purpose of this Code is to "to promote best practice amongst business, local authorities and parking enforcement contractors to find effective solutions where loading/unloading is an ongoing problem" (FTA, 2006). The Code has been jointly developed by a wide range of stakeholders that includes TfL, London boroughs, trade associations, and companies. The Code of Practice sets out guidelines in three sections for delivery staff, for parking attendants and for traffic authorities. The Code also provides an explanation of what constitutes loading and unloading, and discusses the differences in the observation time of parking attendants before issuing parking tickets in different London boroughs. The principles incorporated in the Code include (Brewery Logistics Group et al, 2006):

- adopting common standards and approaches throughout the capital,
- understanding and respecting each other's situation and job,
- the need for London-specific training and ensuring proper records are made, kept and reported.

The Code contains details about "observation periods" (i.e. the time spent by a parking attendant observing evidence of loading/unloading activity at a vehicle before deciding whether or not to take any action) as well as the standard procedure for determining this period. The Code provides operators with seven principles which include conforming to loading regulations, providing London-specific training to drivers, debriefing drivers who receive Penalty Charge Notices (PCNs), and discussing delivery issues with traffic authorities, customers and local residents to resolve problems. The Code provides parking attendants with principles to adopt which include communicating with drivers when an infringement seems likely to occur, communicating to the driver what the infringement was at point of PCN issue, and not to issue PCN during the observation period if loading/unloading is taking place legitimately. The Code also encourages that standard training to be given to all parking attendants about the needs of delivery vehicles. The principles provided in the Code for local authorities include ensuring that parking attendants' incentives are only linked to quality-related Key Performance Indicators, showing transparency in measuring and reporting on PCN quality, cancellation rates, appeal process results and processing times, using technology to limit opportunities for parking attendants to make mistakes when issuing a PCN.

It is envisaged that the partnership developed in order to produce the Code will "lead to real improvements in delivery and servicing and encourage a culture of rolling out best practice for all parties". To help facilitate this it is suggested that new technology should be implemented by traffic authorities (such as digital photos and hand-held computers) and that the Key Performance Indicators used by traffic authorities should be standardised and monitored. The Code will be reviewed and updated on a regular basis to ensure it remains relevant and helpful.

In addition, several boroughs have been reviewing their current practices concerning the enforcement of parking regulations as a result of issues raised by distribution companies. For example, the London Borough of Westminster issued a revised Enforcement Protocol to its enforcement contractor in 2005, which gave guidelines on how parking regulations are to be enforced by parking attendants in the borough. This protocol was made available to anyone who wished to view it. In the revised protocol parking attendants provide parked vehicles two minutes grace before being issued a ticket, and allow goods vehicle loading and unloading to take place for as long as required between 08.30 and 11.00 (rather than allowing 20 minutes as had previously been the case) and multi-drop deliveries that may take longer than 20 minutes are now permitted as long as the vehicle is moved in the process. Parking attendants were retrained to ensure that they enforced this revised protocol (City of Westminster, 2005).

As part of the London Freight Plan, TfL will put in place several steps to help bring about greater reliability for goods vehicle drivers in accessing legal delivery spaces. This will include the adoption of legal loading plans, the development of measures to identify and address Penalty Charge Notice hotspots and the introduction of pan-London information systems on delivery restrictions (TfL, 2006a).

4.2 Goods vehicle access times

In Paris a review of goods vehicle access times has led to the implementation of major changes in the times that different sizes of vehicles can enter the city. This has resulted in reduced daytime access for large heavy goods vehicles (HGVs). In London, a review of existing night-time access restrictions on HGVs has been carried out. The existing system has been retained with some minor amendments. TfL is also reviewing night delivery curfews to determine whether there are situations in which such curfews could be relaxed to make deliveries more efficient while ensuring that the negative impacts of these activities are minimised. Therefore the approach to vehicle access times being taken in the two cities vary substantially with reduced daytime access for HGVs in Paris compared with continuing night-time restrictions on HGVs in London.

Vehicle access time restrictions have recently undergone a major revision in Paris. A review of existing access time restrictions identified that they were too complicated, contributing in part to the failure to observe the rules. The aim has been to simplify these regulations and to improve understanding of, and compliance with, them. This has resulted in a simplification of the times at which different types and sizes of goods vehicle can enter Paris being introduced from the beginning of 2007. The vehicle sizes are based on the area occupied by the vehicle rather than its total weight. Under the new scheme, goods vehicles up to 29m² (i.e. rigid goods vehicles with gross weights of up to approximately 19 tonnes) are not allowed to enter the Paris area between 17.00-22.00 but can enter at all other times. Goods vehicles over 29m² are only allowed to enter between 22.00-06.00. Exceptions have been made for some vehicles over 29m² including tankers, removals vehicles, and goods vehicles assisting road works but these are to be reviewed in 2007. These access time restrictions represent improved access times for small and medium-sized goods vehicles (previously goods vehicles up to 24m² could not enter Paris between 07.30-09.30 and 16.30-19.30) and reduced access times for larger goods vehicles (previously goods vehicles over 24m² could enter Paris between 19.30-07.30).

Goods vehicle access time restrictions in London are in many ways the reverse of those in Paris, with goods vehicles over 18 tonnes gross weight facing restrictions during the night-time as part of the London Lorry Control Scheme (LLCS), but with few day-time restrictions for goods vehicles of any size/weight except on specific streets (such as day-time restrictions on Oxford Street to improve bus flows and make the environment safer for pedestrians).

The LLCS is administered and enforced by the Association of London Government (ALG) through its Transport and Environment Committee which is a joint committee of London boroughs. The objective of the scheme is to reduce noise nuisance at anti-social times by eliminating through heavy lorry traffic at night time and weekends and minimising the environmental intrusion of heavy lorries with business in London during the ban period. The LLCS aims to ease traffic noise in residential areas by restricting lorry movements (for goods vehicles over 18 tonnes gross weight) on designated roads during the night (21.00-07.00) and at weekends (13.00 on Saturdays through to 07.00 on Mondays). During the restricted times, goods vehicle operators need special permits to be allowed to use their lorries on all but a very limited number of roads on a regulated basis. A small number of main roads and individual access roads in London are excluded from the scheme. Any goods vehicle subject to the Scheme must make the fullest use of a prescribed set of roads when travelling in London at the times the Scheme is in force.

TfL is planning to develop a delivery curfew database for London showing locations where night-time delivery restrictions currently exist, and provide guidance to help maximise night-time deliveries while at the same time ensuring that this activity is conducted in such a way as to ensure that it does not negatively affect local residents (TfL, 2006a).

4.3 Professionalisation of the distribution industry

In both Paris and London efforts are being made by policymakers to engage with goods vehicle operators and to encourage them to join voluntary initiatives to improve the efficiency and at the same time reduce the negative impacts of their operations. Driver training has an important role to play in both cities' schemes.

As previously mentioned, a Charter of Good Practice for Transport and Goods delivery in Paris was published in 2006. This is a voluntary scheme that has been put in place by the Mayor of Paris in conjunction with representatives of the freight transport industry, its users and other relevant bodies. A Committee will be formed to oversee the charter. The charter contains details of what is expected of the following groups of actors (Mairie de Paris, 2006):

- Shippers, forwarder and receivers of goods
- Transport and distribution companies
- The City of Paris and other relevant authorities

The intention is that each group will sign up to the charter to improve the sustainability of delivery and collection operations in Paris.

The charter recognises that shippers, forwarder and receivers of goods have to deal with many constraints while working in the Paris area but, despite these difficulties, they should aim to make their operations more sustainable. A number of initiatives were agreed as part of the consultation process with all the actors (stakeholders) noted above that led up to the Charter. The following initiatives are examples of the proposals within the charter. Established businesses have been asked to consider making/receiving earlier collections and deliveries in order to reduce the impact of the delivery process on traffic congestion. New business developments that will occupy more than 500m² should include off-street loading bays in their development plans while existing larger companies without off-street bays must inform the city of Paris of their on-street (un)loading needs. It has also been agreed that those signing the charter will ensure that wherever possible they encourage modal shift and the use of clean goods vehicles.

Transport and distribution companies that sign up to the charter should agree to a set of actions that include acquiring and using the delivery disc previously described, only using vehicles that conform to size regulations and meet designated Euro engine standards, only employing vehicle drivers that are familiar with and have received training in urban distribution operations and putting in place a framework for driver training by 2010, experimenting with clean / low pollution vehicles, and achieving noise reduction through collaboration with vehicle manufacturers and driver training schemes. Companies signing up to the charter are expected to monitor their progress towards these objectives and advise any problems to the Follow-up Committee.

The Mayor of Paris and other relevant authorities will ensure that their own goods vehicle fleets conform to the requirements of the charter and will promote and assist in clean goods vehicle experiments.

TfL has recently launched the Freight Operator Recognition Scheme (FORS) for operators working in London (TfL, 2006b). FORS is a key proposal within the London Freight Plan. There is no cost to operators to join FORS and it is designed to encourage road freight operators to adopt best practice in London. FORS contains the following elements to help road operators (TfL, 2006c):

- Opportunity to share their concerns and issues about the distribution of freight and servicing of vehicles in London
- To get involved in initiatives aimed at improving freight movement in London
- To have a single point of contact for any initiatives that affect freight in London
- To consider the impact they have on the environment, the economy and society

Companies joining FORS will receive help and guidance from TfL, the Metropolitan Police and other associated bodies on topics including fuel efficiency, occupational road risk, a delivery initiative to help reduce the number of Penalty Charge Notices issued to operators, journey planning - TfL is developing a Journey Planner that operators can use to plan routes and note delivery restrictions and

freight training to help improve the standard of delivery and collection in London (it is planned that this will consist of online information, presentations and seminars, and company visits from advisers).

The “pioneer phase” of FORS took place in December 2006 in which a small number of operators have been invited to join to help to determine the scheme's accreditation levels and benefits. It is planned that FORS will be offered to all goods vehicle operators in autumn 2007. Companies will have to achieve specified standards of good practice to qualify for different levels of FORS membership. At the time of writing the exact nature of the different levels of FORS membership are still to be agreed as are the incentives. However, in principle the intention is that those operators that are willing to achieve the highest standards should receive some form of operational incentive – for example – in terms of extended access times.

In addition, as part of the London Freight Plan, TfL also intends to establish a “Freight Training Initiative” which will link to existing national driver training programmes but at the same time will ensure that the particular requirements for London are addressed. As well as including goods vehicle drivers, the initiative will also be developed for load planners and managers within the freight industry as they play an important role in shaping and influencing driver behaviour. Freight training for London borough and other local authority personnel will also be included (TfL, 2006a).

4.4 Cleaner goods vehicles

Policymakers in both Paris and London are also focusing increasing the use of cleaner goods vehicles for operations in the cities. In Paris this is taking the form of a voluntary scheme to use vehicles with agreed Euro engine standards by specified dates. In London a compulsory Low Emission Zone (LEZ) scheme is being proposed which would require vehicles entering the city to meet specified engine standards. In addition, efforts are being made in London to encourage the use of alternatively-fuelled vehicles as well as investigation of noise abatement initiatives to be used to reduce night time delivery disturbance. Therefore both cities have similar objectives in terms of the use of cleaner goods vehicles but have opted for differing approaches in terms of whether schemes should be voluntary or compulsory.

As part of the charter introduced in Paris (described in the previous section), companies signing up will commit to meeting specified Euro engine standards. These companies will be required to operate Euro 3 compliant vehicles in Paris from 1 January 2007, Euro 4 vehicles from 1 January 2009, and Euro 5 vehicles from 1 January 2010. These companies will also be expected to achieve noise reduction in their urban freight operations in Paris through collaboration with vehicle manufacturers to design quieter vehicles. Noise reduction will also be achieved through driver training schemes to help drivers reduce noise through improved driving and also during loading and unloading operations. The Mayor of Paris will help promote the use of cleaner goods vehicles by promoting and assisting with relevant experiments (Mairie de Paris, 2006).

The London Freight Plan also aims to encourage the use of cleaner goods vehicles through steps including developing a programme to increase the use of hydrogen-fuelled and electric hybrid vehicles, and the investigation of the potential to adopt a Dutch noise abatement programme for night time deliveries (TfL, 2006a).

In order to improve air quality in London, the Mayor is proposing to designate Greater London as a Low Emission Zone (LEZ). The objectives of the proposed LEZ would be to move London closer to achieving national and EU air quality objectives for 2010 and to improve the health and quality of life of people who live and work in London, through improving air quality. A LEZ would aim to reduce air pollution by discouraging the most polluting vehicles from driving in Greater London. These are generally older, diesel-engined lorries over 3.5 tonnes. The emission standards for the LEZ would encourage the upgrading or replacement of diesel-engined heavy goods vehicles to Euro III for PM10 by 2008 and to Euro IV for PM10 by 2012. Operators wishing to bring vehicles into the Zone that did not meet the specified emissions standards for the LEZ would be required to pay a substantial charge. It is not just goods vehicles that will be subject to the proposed LEZ, it is also intended to apply to buses and coaches (Transport for London, 2006d).

4.5 Modal shift

In both Paris and London policymakers have taken steps to ensure that existing and potential intermodal and waterway freight facilities are protected. In Paris, companies that join the voluntary charter are being encouraged to protect such facilities in their possession and to consider options for shifting freight traffic off of roads to other modes. In London wharves on the River Thames have been protected (safeguarded by the Mayor) through the planning system. In addition, Transport for London is examining the potential for greater use of London's canal system (especially for waste) and non-road modes for courier and servicing sectors.

The Mayor of Paris has put in place several actions to help encourage the use of rail and river for freight movements in the city. These include getting companies that sign up to the charter to make their best efforts to shift freight traffic to rail and river wherever possible, to produce a mechanism for companies to bring to the attention of the Committee success that they have in achieving this as well as problems they encounter, key rail freight infrastructure providers retaining existing logistics facilities for rail (which are referred to as "plates-formes" and "hôtels logistiques" dedicated to urban rail logistics), that the Port of Paris is charged with retaining and improving river facilities for rail freight and that the possibility of using three canals in Paris is considered.

The Mayor of London has also put in place steps to encourage rail and waterborne freight. The Mayor, together with the Port of London Authority and the relevant local authorities, has reviewed the existing wharves that have been safeguarded for freight operations (both operational and non-operational). As a result of this review the vast majority of these wharves have retained their safeguarded status (i.e. they receive protection through the planning system) and other wharves without safeguarded status were recommended for safeguarding by direction of the Deputy Prime Minister (Mayor of London, 2005).

The London Freight Plan contains several ways in which TfL will seek to encourage the use of non-road modes for freight movements in London. These include developing conditions to promote terminal site development through the planning system and through building capacity with planners, operators and developers, developing vehicle/barge technology and promoting the use of foot, trolley or cycle modes where appropriate in the courier, servicing and maintenance sectors (TfL, 2006a).

4.6 Similarities and differences between policy measures

Table 5 summarises some of the main similarities and differences in the approaches being taken by the Mayors of Paris and London in the five areas of freight transport considered.

Table 5: Similarities and differences in the approaches being taken in Paris and London

Policy area	Specific approach in Paris	Specific approach in London	Similarities and differences in approach
Loading/unloading	Focus on: <ul style="list-style-type: none"> provision of loading bays loading time permitted greater enforcement 	Code of Practice for: <ul style="list-style-type: none"> operators enforcement organisations 	Harmonisation in regulations and enforcement
Vehicle access times	Focus on: <ul style="list-style-type: none"> Major alterations in city access times for different sizes of goods vehicles Reduced daytime delivery hours for large HGVs 	Prevention of night-time deliveries by large HGVs	Very different approach being taken.
Professionalisation of the distribution	Focus on: <ul style="list-style-type: none"> Improved 	Focus on: <ul style="list-style-type: none"> FORS Scheme 	<ul style="list-style-type: none"> Voluntary schemes for companies

industry	communications strategy <ul style="list-style-type: none"> • Use of urban driving specialists by companies signing charter 		introduced <ul style="list-style-type: none"> • Provision of driver training schemes
Cleaner goods vehicles	Vehicle Euro engine standards based on voluntary scheme	Proposed Low Emission Zone scheme will be compulsory	Criteria based on Euro-engine standards
Modal shift	Focus on: <ul style="list-style-type: none"> • Safeguarding key sites • Experiments and pilot projects 	Focus on: <ul style="list-style-type: none"> • Safeguarding sites Support for certain sectors to change – e.g. waste by barge	Safeguarding of existing and potential facilities

5. Conclusions

Freight transport had received little specific attention from policy makers in London and Paris in recent decades. However, this situation has changed considerably in the last five years with the Mayors of London and Paris giving serious consideration to freight transport as part of their overall transport strategies. These Mayoral freight policy considerations are taking place against a background of growing levels of road freight activity, energy use and pollutant emissions in both cities as well as extending hours of business and leisure activity over the course of the day (with London and Paris evolving into “24-hour” cities in which goods are being consumed throughout the day and night).

Comparison of the key freight transport objectives being followed in London and Paris shows that they are similar with both focusing on improving the efficiency and reliability of freight transport, while reducing the negative environmental impacts that it causes. Both cities are keen to promote and encourage the use of non-road modes for freight transport.

In both London and Paris stakeholder consultation has played an important role in informing and developing freight transport strategies and specific policy measures. This is the first instance in both cities that policy makers have worked closely with freight transport operators, other commercial organisations, trade associations and other interest groups to determine freight strategies that take into account a wide range of perspectives and needs.

The specific freight transport policy measures being followed show some differences in each city but have common themes such as loading and unloading, vehicle access, modal shift, professionalisation of the distribution industry and encouraging the use of cleaner vehicles.

Continued and more detailed analysis of the specific policy measures and their outcomes in London and Paris will be necessary as they are implemented and take greater effect over time. By studying and comparing such city case studies it will be possible to identify approaches that have proved successful. It is also possible to consider whether a successful approach in one city is likely to prove successful in another and whether the necessary conditions and organisation required for such an approach are present.

References

Atlassy, M., *Transport de marchandises en ville: Les actions et expérimentations en cours à Londres et à Paris*, Mémoire de diplôme d'études approfondies Transport, 2005, Espaces et Réseaux, LET, Lyon.

Baybars, M. and Dabanc, L., Meeting the challenges of urban freight in European cities: The examples of London and Paris, *10th World Conference on Transport Research*, 2004, Istanbul, 4-8 July.

Brewery Logistics Group, FTA, CBI, Central London Partnership, London First, London Chambers of Commerce, *London loading/unloading Code of Practice: A guide for delivery staff, parking attendants and parking and enforcement officials*, 2006, FTA.

City of Westminster, *Parking Services: Enforcement Protocol*, 2005, City of Westminster.

Department for Transport, *Transport of Goods by road in Great Britain: 2004*, 2005a, DfT.

Department for Transport, *Waterborne freight in the United Kingdom: 2004*, 2005b, DfT.

Direction Régionale de l'Équipement d'Ile-de-France, *PDUIF*, 2003, Bilan à mi-parcours.

Eurostat, *Regional GDP per inhabitant in the EU27*, 2007, News release, 19 February 2007, Eurostat.

Freight Transport Association, London loading/unloading Code of Practice launched, FTA press release, 12 January 2006, FTA.

Mairie de Paris, *Projet de Plan de Déplacements de Paris*, presented to the Conseil de Paris 12-13 February 2007 for Deliberation, Délibération DVD 2007-007, 2007, Mairie de Paris.

Mairie de Paris, *Charte de Bonnes Pratiques des Transports et des Livraisons de Marchandises dans Paris*, 2006, Mairie de Paris.

Mairie de Paris, *Direction de la Voirie et des Déplacements: Elaboration du Plan de déplacements de Paris (PDP)*, 2005, Mairie de Paris.

Mairie de Paris, *Le bilan des déplacements à Paris en 2002*, 2003, Mairie de Paris.

Mayor of London, *Safeguarded Wharves on the River Thames: London Plan Implementation Report*, 2005, Greater London Authority.

Mayor of London, *The Mayor's Transport Strategy*, 2001, Greater London Authority.

National Statistics, *Regional Trends 39*, 2006, National Statistics.

Ove Arup, *London Rail Freight Study*, report to TfL, 2003, Ove Arup.

Ripert, C., Paris Freight Policy Programme and Effects, *BESTUFS Annual Conference*, Malta, 17-18 May 2006.

Transport for London, *The London Freight Plan: Draft for Consultation*, 2006a, TfL.

Transport for London, New freight scheme is a FORS to be reckoned with, TfL press release, 2006b, 31 August 2006, TfL. Available at: <http://origin.tfl.gov.uk/tfl/press-centre/press-releases/press-releases-content.asp?prID=883>

Transport for London, Freight Operator Recognition scheme, 2006c, TfL. Available at: <http://www.tfl.gov.uk/tfl/freight/fors.asp>

Transport for London, Have your say on the proposed London Low Emission Zone, 2006d, TfL.

Transport for London, Personal communication from TfL, 2004a.

Transport for London, *London Travel Report 2004*, 2004b, TfL.