London's Freight and Servicing Action Plan

IPIC 2019: *Physical Internet answering to Retail & City Logistics challenges*

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Transport for London and the Mayor's Transport Strategy

London in context

Capital and largest city in the UK

1500 sq. km area

Over 8.6m residents – expected to grow to 10.5m over next 25 years

330,000 businesses

Around 4.7m jobs

30 million visitors a year

On an average day in London, there are more than

31

million journeys

Local government

TfL manage 5% of the road network in London and all 6,300 traffic signals

The boroughs manage 95% of the road network

The Mayor's Transport Strategy

Published in March 2018, following extensive consultation with boroughs, stakeholders and the public

The MTS prioritises a Healthy Streets Approach across Greater London

It contains ambitious targets for London:

80% sustainable mode share by 2041

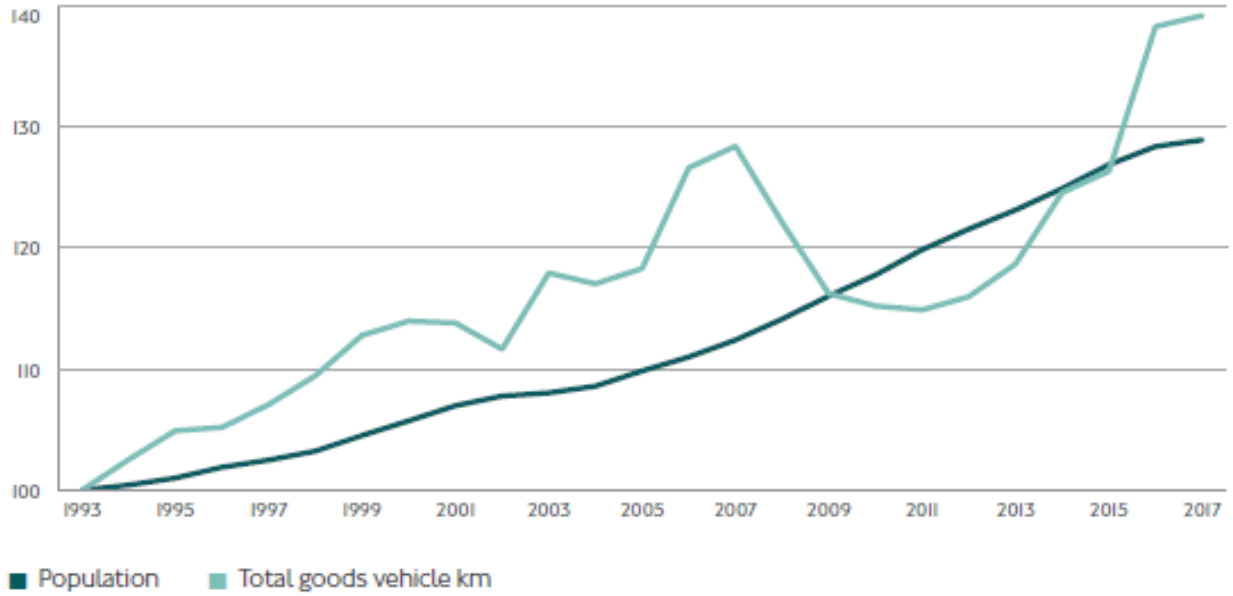
- 20 minutes of active travel per day for all by 2041
- Vision zero for the transport network by 2041
- Zero emission by 2050
- 10% less in central London am peak 2026
- 3 million fewer private car trips by 2041

The Mayor aims to reduce the number of lorries and vans entering central London in the morning peak (07:00-10:00) by 10% by 2026

Freight in London and its challenges

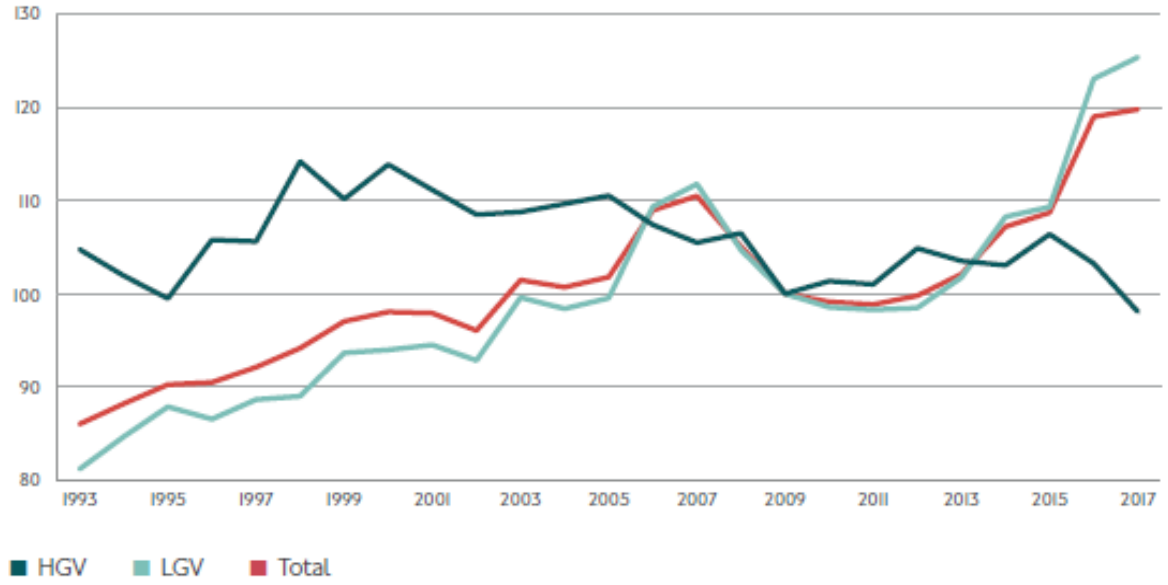
Freight trends in London

Population and total freight and servicing vehicles in London (1993 – 2017)



Freight trends in London

Freight and servicing vehicle kilometres in London, split into HGVs and LGVs (1993 – 2017)



90%
of all goods handled in London are transported by road

39%
increase in freight and servicing vehicle kilometres in London in the last 25 years

3%
of vehicle kilometres in London in 2017 were HGVs

16%
of vehicle kilometres in London in 2017 were LGVs

Policy challenge

The Mayor's vision for Healthy Streets will significantly change the operating environment in London by reallocating road space to walking, cycling and public transport.

Freight is essential to London's success, around half the value of household expenditure (£79bn in 2013) relies on freight. We need to:

- Enable continued access whilst reducing the dominance of motor vehicles
- Make the most **efficient use of London's finite road space**, whilst delivering the safety and environment improvements

The Freight and Servicing Action Plan

London's first Freight and Servicing Action Plan sets out how we will support safe, clean and efficient freight.

It is an evidence-based plan that applied findings from detailed data analysis published statistics and research.

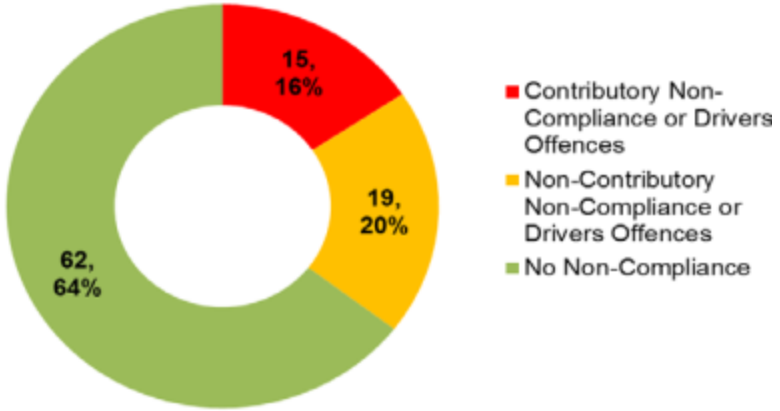
We engaged with stakeholders to develop our understanding of freight activity and what has been driving trends.

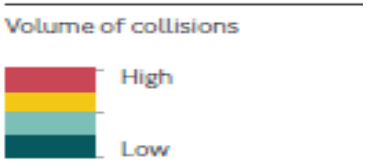
Taking action to support **safe** freight and servicing in London

Freight and road danger

In London between 2015 and 2017 there were **123 fatalities and 986 serious injuries** involving freight vehicles

Locations of collisions involving goods vehicles resulting in deaths or serious injuries in London between 2015 and 2017





Freight and road danger

Despite only making up less than 5 % of total vehicle kilometres driven in London, HGVs were involved in **25% of pedestrian fatalities and 63% of cyclists fatalities**

Risk of motor vehicles being involved in fatal collisions with:

People walking

People cycling

Safe vehicles – Direct Vision Standards

Launching the world's first Direct Vision Standard to improve the safety of vulnerable road users

https://tfl.gov.uk/info-for/deliveries-in-london/delivering-safely/direct-vision-for-hgvs-research-and-tools

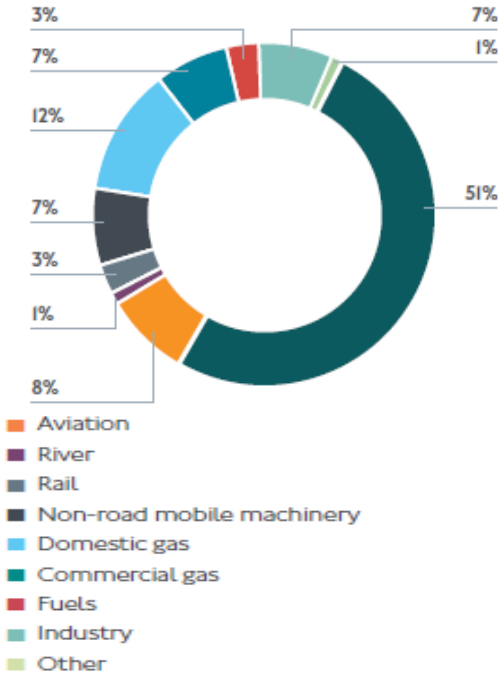
Limited direct vision model

Increased direct vision model

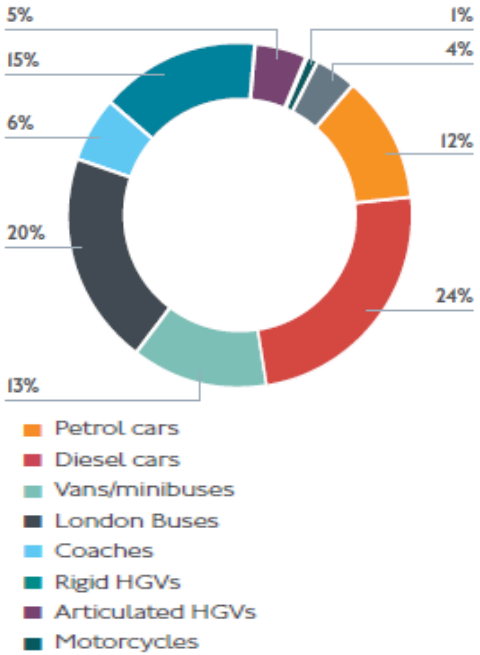
Taking action to support **clean** freight and servicing in London

Freight and air quality

Sources of NOx in London



Sources of transport NOx in London



33% of NO_x emissions from road transport in London came from freight vehicles

29% of $PM_{2.5}$ emissions from road transport in London came from freight vehicles

23% of road-related carbon dioxide emissions in London came from freight vehicles

9,400 estimated premature deaths from long-term exposure to $PM_{2.5}$ and NO_2 in London

London's Ultra Low Emission Zone

Existing situation (2008 onwards)

- T-Charge (2017) and LEZ (2008) in operation

Euro 4	£10
Euro IV	(CC Hours Only)
Euro IV PM	£200
Euro 3 PM	£100

April 2019 – Central London ULEZ

- ULEZ replaces T-Charge. Introduction of Euro 6/VI diesel standard and change in charge and hours

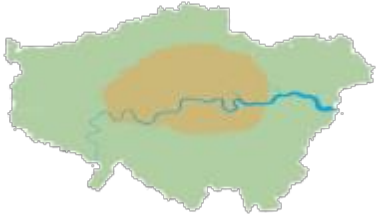
Euro 3	£12.50
Euro 4 petrol or Euro 6 diesel	£12.50
Euro VI	£100
Euro IV PM	£200
Euro 3 PM	£100

October 2020 – Strengthening of LEZ standards

- Euro VI standard applies London-wide for heavy vehicles

Euro 3	£12.50
Euro 4 petrol or Euro 6 diesel	£12.50
Euro VI	£100
Euro IV PM	£300
Euro 3 PM	£100

October 2021 – Expansion of ULEZ



- ULEZ expands to inner London

Euro 3	£12.50
Euro 4 petrol or Euro 6 diesel	£12.50
Euro VI	£100
Euro IV PM	£300
Euro 3 PM	£100

Taking action to support **efficient** freight and servicing in London

Freight is impacted by and contributes to congestion

75% congestion in London is caused by too many vehicles for the road space available.

Congestion increases the costs of doing business – estimated cost of congestion to London was £9.5 billion (INRIX, 2017).

52% of this was estimated to be caused by commercial vehicles.

Currently only 10% of freight is carried by rail and water and there is potential to increase this.

Projected freight and servicing vehicle flows and congestion hotspots in 2031

Influencing consumers across the supply chain

We need to influence behaviour at all points along the supply chain, including :

- Manufacturers
- Operators
- Businesses
- Planning authorities
- Consumers

Managing the network efficiently for freight

London's Network Management Control Centre

- Our traffic controllers can temporarily change the timings at three quarters of London's traffic lights to respond to incidents and congestion

Construction Logistics Plans for new developments

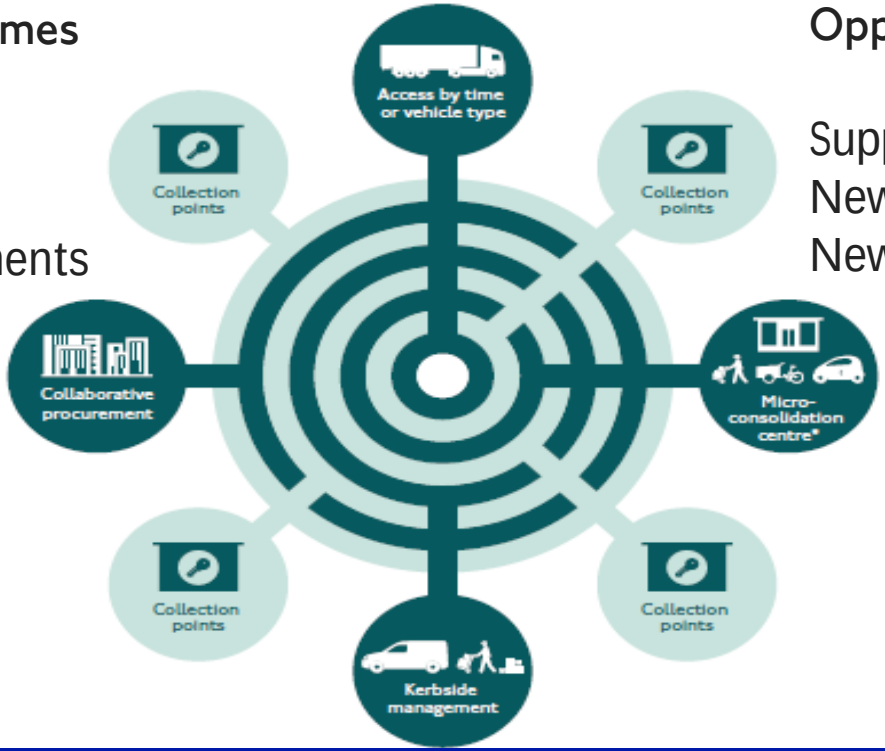
- 19-23 Blackfriars Road, Southwark - On-site recycling during demolition and construction: Demolition material was crushed on site and stored for use as the piling for the new development. This saved 1,633 tipper movements to and from the site

We will be taking an area based 'holistic' approach

A combination of measures are needed to support safe, clean and efficient freight

Transformational Schemes

Healthy streets
Cycle routes
Town centre improvements



Opportunity areas

Supporting areas of growth
New large scale development
New public transport corridors

We are testing a number of consolidation projects in London

- **Pedestrian porterage** - dropping off parcels to walking couriers to free-up kerbside space
- **Schools geographical cluster –** collaborative procurement
- **Multi-occupier sites** – introducing collaborative procurement to reduce multiple deliveries
- **TfL's own deliveries** - looking internally for opportunities to reduce the impact of our own freight and servicing activity to demonstrate how this can be applied to other large organisations with many different business areas and locations
- **Borough consolidation centres** - identify the benefits of using urban consolidation centres on the outskirts of the city
- **Load sharing technology**- Working with logistics company to utilise spare capacity and reduce vehicles on road network
- **BIDS and Business Parks** - testing waste consolidation, goods and servicing consolidation and shared procurement through tenancy agreements

Pedestrian Porterage

- Practical trial in partnership with FTC2050 research project
- Electric vehicle drops off small packages to porters on-street
- Porters deliver to final destination on-foot
- Effective in densely built-up areas where vehicle spends around 65 per cent of time parked at kerbside
- Frees-up kerb space allowing for more efficient use of parking and reduces impacts of circulating vehicles
- Results – kerbside parking time reduced by 50% & driving distance reduced by 29%

Load sharing technology

Vehicles often return from deliveries empty or with spare capacity. These vehicles still take up space on the road and are a cost to the operator.

Load-sharing technology is well established in international logistics, but currently not highly used for urban freight logistics. A few technology companies have recently introduced load-sharing platforms aimed at London freight logistics operators.

We are working with an operator to trial one of these for their London fleet. We want to test how technology can be used to reduce deliveries and ease congestion by utilising this spare capacity.

Once complete, the trial will be evaluated to consider its benefits, financial viability and potential for wider roll out.

Construction consolidation centres

Network of Construction Consolidation Centres in London

There are 12 consolidation centres that currently service the capital.

These have successfully reduced the number of HGVs on the road network.

We are working with boroughs and operators to identify land for a centre in the southwest of London to complete the network.

The whole of the capital will then be within 30 minutes of a centre.

Waste consolidation

Bond Street Waste Consolidation

Daily waste vehicle movements on the street reduced from144 to nine a day.

67 per cent reduction in waste bags on the footways during shopping hours.

Consolidation- our learnings so far…

- We will continue to support consolidation as one of a combination of measures that support safe, clean, and efficient freight particularly
  - collective procurement schemes
  - increased the use of micro-consolidation centres
  - establishing new micro-consolidation centres in new developments and as part of transformative schemes
  - new development areas

- The complexity of freight movement in London is too great to enable us to establish a ‘one size fits all’ network of consolidation centres to serve the central area

Taking action to support **land** for freight and servicing in London

Land for freight

Between 2000 and 2012, the proportion of industrial floorspace fell by almost 20 per cent

Reduced availability and rising cost of land is leading to an increase in the length of delivery trips

This increases exposure to road danger, poor air quality and pushes up operating costs

Increasing capacity for freight

Secure and protect land to support mode shift to water and rail

Identify unused land within TfL's estate for distribution centres and collection points (and encourage boroughs to do the same)

Provide support and guidance for deliveries for mixed use/co-location sites

Management of industrial floor space by London borough

Safeguarded wharves

The future for freight in London

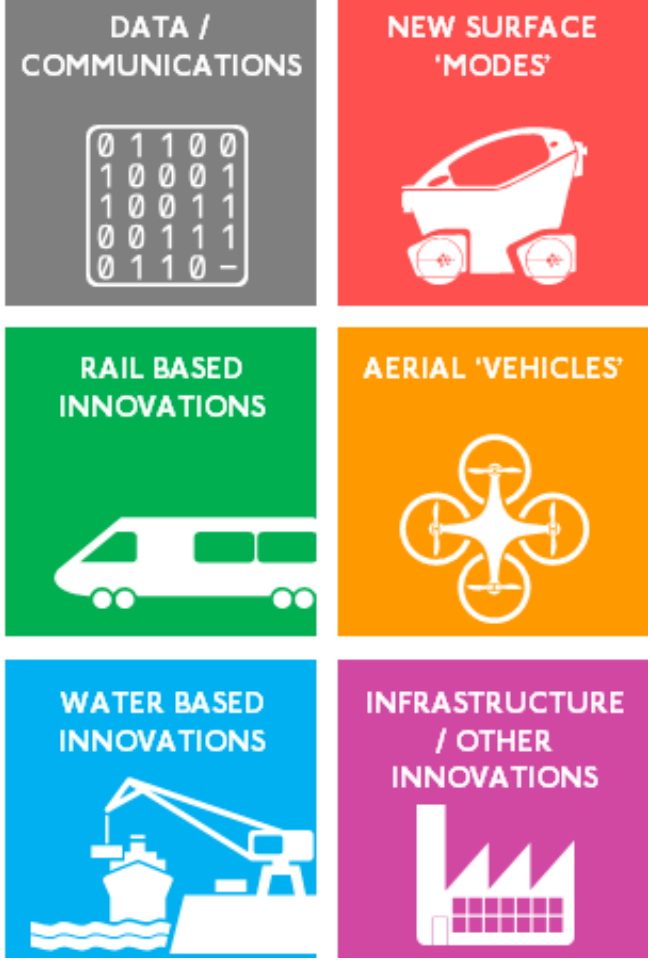
The future for freight in London

Technology is changing the freight industry

- Changing customer demand
- Changing business models
- Connected and autonomous vehicles
- Innovative delivery technologies (eg drones)

We are engaging with and sharing our data with market innovators, start-ups, academics and public bodies to support and be prepared for innovative future solutions

Our plan provides a clear roadmap for change, bringing existing programmes, new innovations and opportunities together



Useful links:

Freight and servicing action plan (March 2018):
http://content.tfl.gov.uk/freight-servicing-action-plan.pdf

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Questions