

LONDON'S AIR QUALITY AND TRANSPORT EMISSIONS



Oliver Lord
Deputy Air Quality Manager
Greater London Authority

MAYOR OF LONDON

AIR QUALITY IN LONDON

EveningStandard.

[News](#) [Football](#) [Going Out](#) [Lifestyle](#) [Showbiz](#) [Homes & Property](#) [Give to GOSH](#)



[News](#) > [London](#)

'Oxford Street pollution levels breached EU annual limit just four days into 2015'

NICHOLAS CECIL | Tuesday 6 January 2015 |



AIR QUALITY IN LONDON

Evening Standard. News Football Going Out Lifestyle Showbiz Homes & Property Give to GOSH   

News > London

Putney High Street breaches annual diesel pollution limit eight days in to 2016

JONATHAN PRYNN | 4 hours ago | [12 comments](#)



AIR QUALITY IN LONDON

Evening

EveningStandard.

News

Football

Going Out

Lifestyle

Showbiz

Homes & Property

Food Month



News > London

Pollution limit hit on Brixton Road just 120 hours into the New Year

JONATHAN PRYNN | Friday 6 January 2017 10:28 GMT | 43 comments



Like

Click to follow
The Evening Standard



AIR QUALITY IN LONDON

Ever



Pigeon Air Patrol @PigeonAir · Mar 16

Want to find out how toxic your air is? Ask me. A pigeon. Tweet just your London area to [@PigeonAir](#) [#PigeonAir](#)

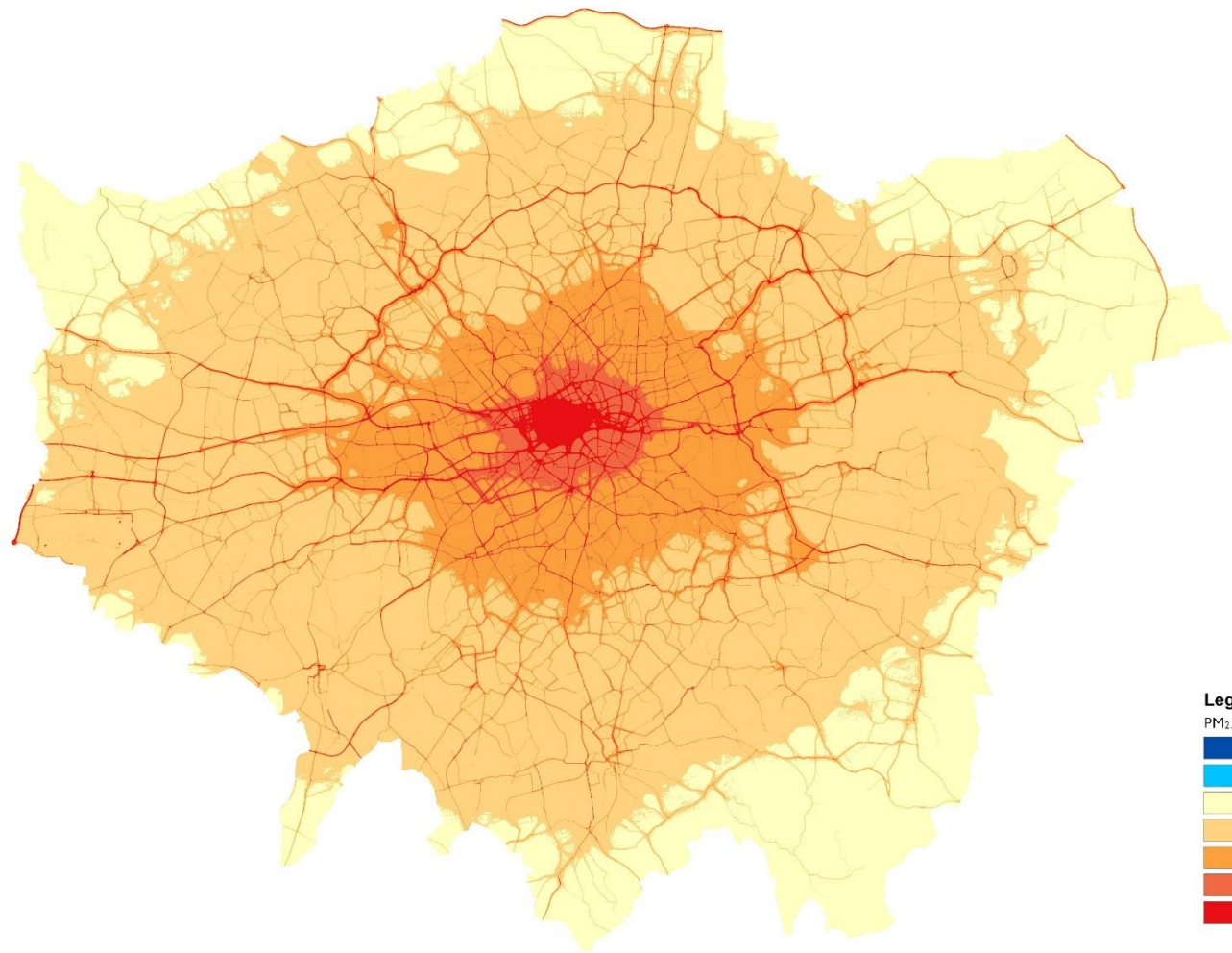


st

N
Standard



PM_{2.5}

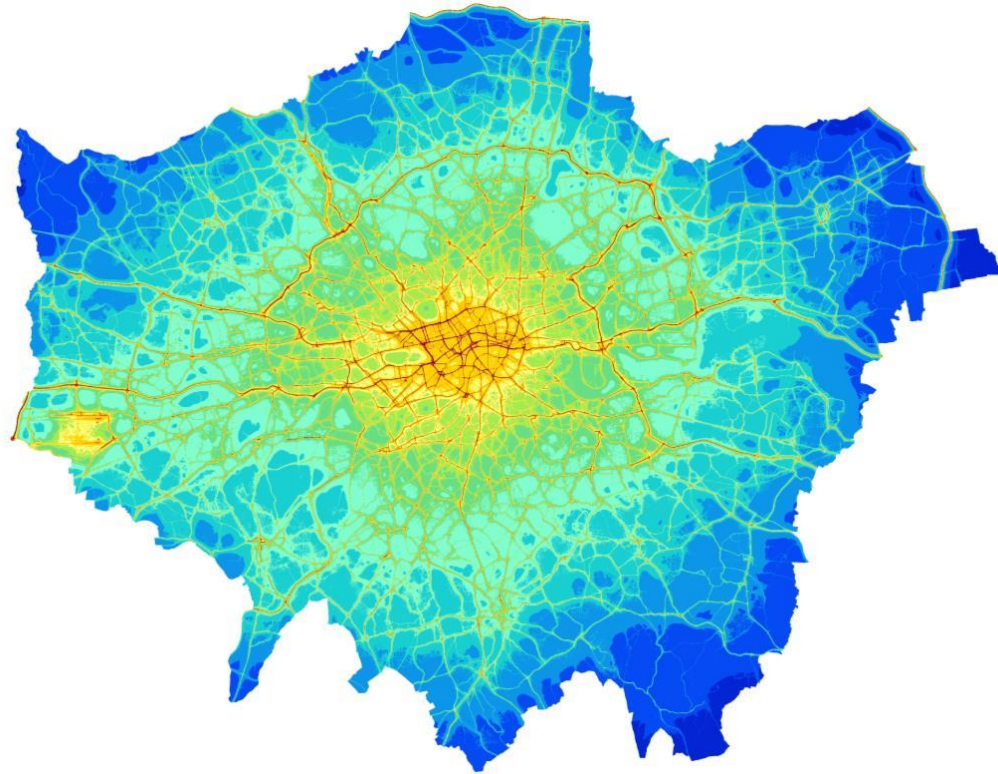


Legend

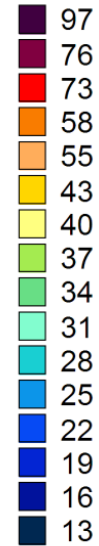
PM_{2.5} (µg/m³)

- <10
- 10 - 12.5
- 12.5 - 15
- 15 - 16
- 16 - 17
- 17 - 18
- >18

NITROGEN DIOXIDE

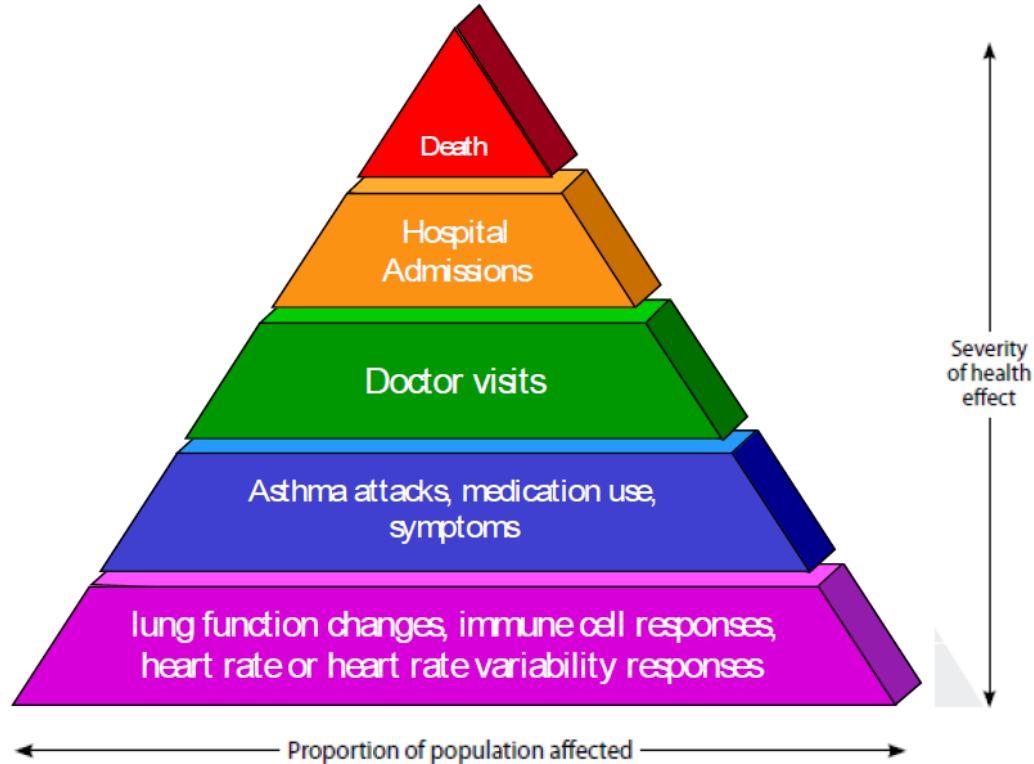


NO2 Annual
Mean (ug/m3)

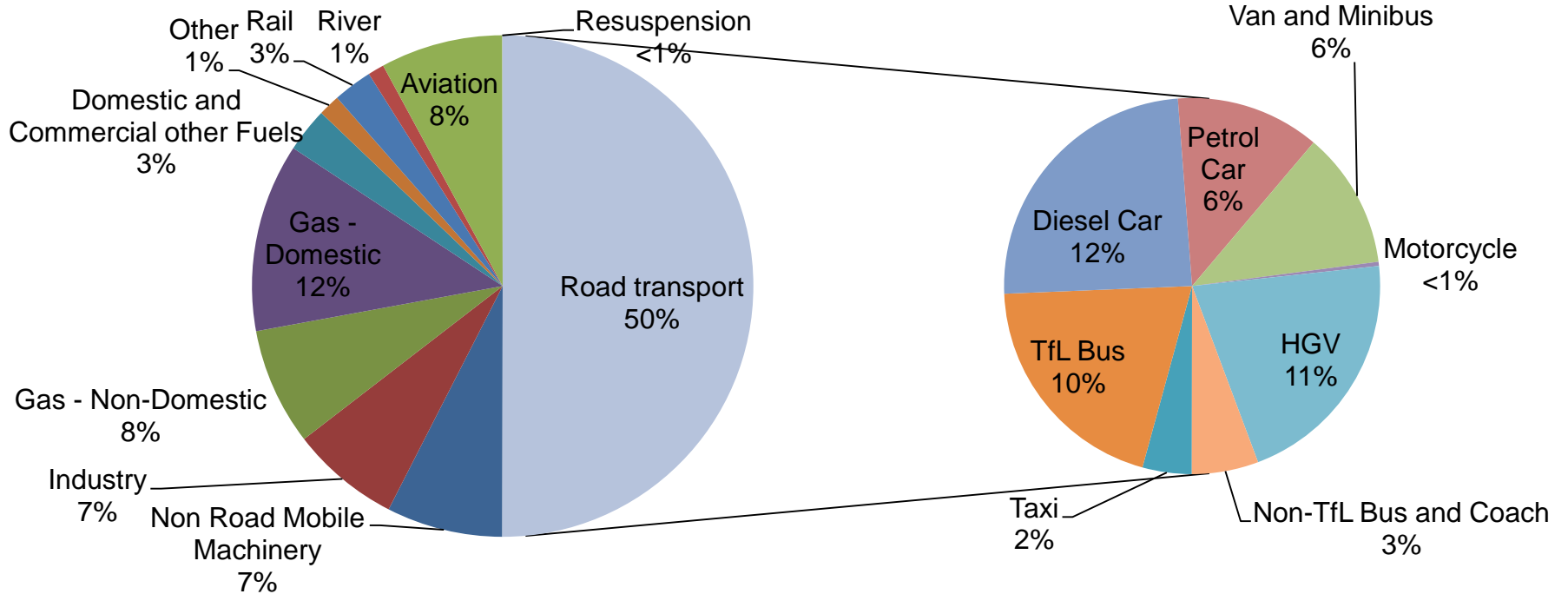


← Legal
limit

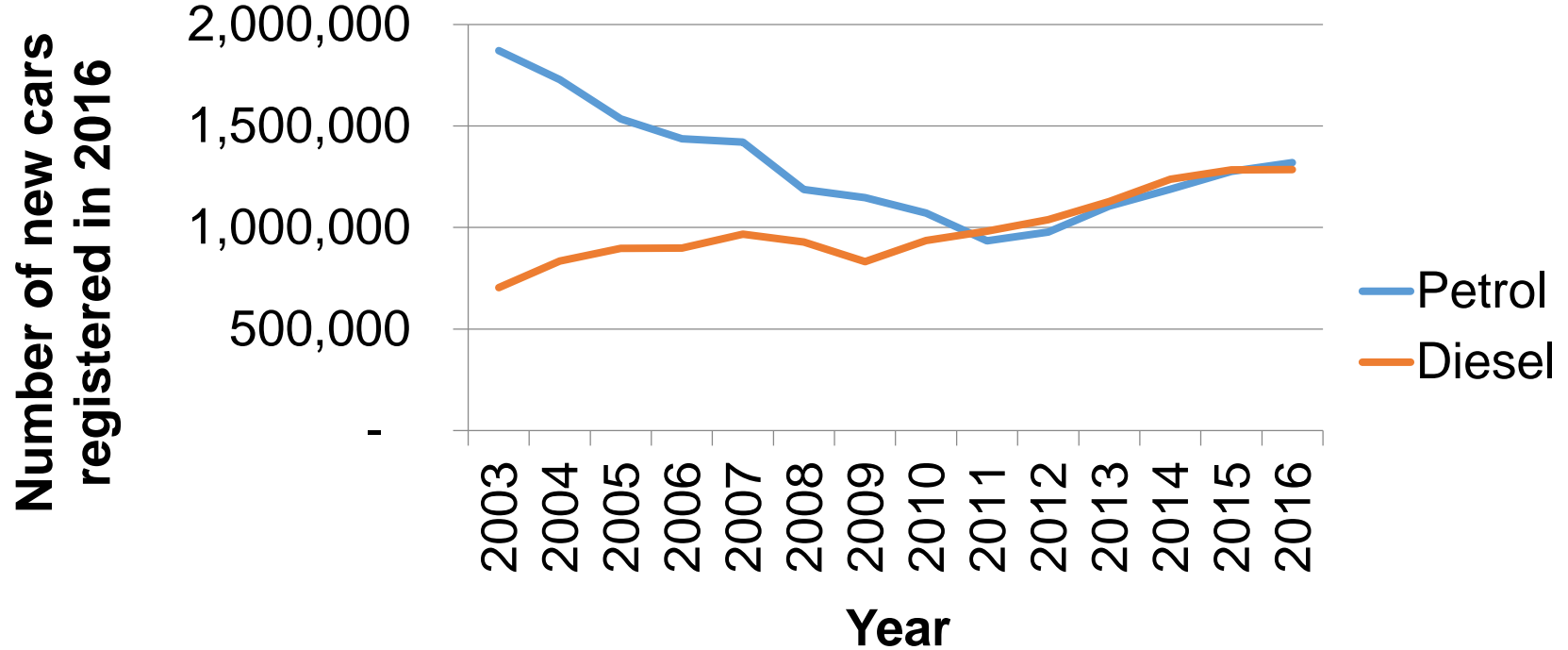
HEALTH AND EQUALITIES



NO_x EMISSIONS (2013)



DIESELISATION



Source: SMMT

DIESEL PERFORMANCE



Euro 3
2000



Euro 4
2005



Euro 5
2009



Euro 6
2014

■ On-road measured value (Carslaw, 2011) / (ICCT, 2014)

--- Euro emission limit

NEW STRATEGIES



OUR OBJECTIVES

- **Reducing exposure** of Londoners to harmful pollution across London – especially at priority locations like schools – and tackling health inequality;
- **Achieving legal compliance** with UK and EU limits as soon as possible, including by mobilising action from the London boroughs, government and other partners;
- Establishing and **achieving new, tighter air quality targets** for a cleaner London, meeting World Health Organisation (WHO) health-based guidelines by 2030 by transitioning to a zero emission London.

HEALTHY STREETS

- Car dependency has contributed to an increase in poor public health across our city.
- By 2041, the Mayor aims for:
 - 80 per cent of Londoners' trips to be on foot, by cycle or by using public transport (from 64%);
 - London's total traffic to have reduced by 10-15%;
 - All deaths and serious injuries from road collisions to be eliminated.

10 Healthy Streets Indicators



FREIGHT TRAFFIC

In a growing city with reducing road capacity:

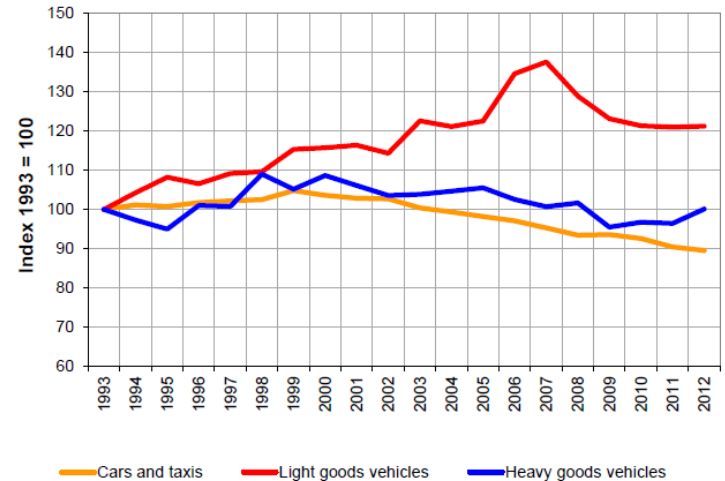
- Freight almost 1/3 of all am peak traffic
- Vans are already 80 per cent of road freight and forecast to grow

Safety issues with HGVs and vulnerable road users

- HGVs are 4 per cent of road miles in London but 78 per cent cyclist and 20 per cent of pedestrian fatalities

Significant contributors to poor air quality and climate change

Figure 14: Vehicle kilometres travelled in London, 1993-2012 (index 1993 = 100)



Note: based on DfT traffic data.

Source: calculated from data provided by TfL, 2014a.

FREIGHT CHALLENGES

- **Rising demand:** population
- **Changing customer demand**
- **Technology:** real-time data, Connected & Autonomous Vehicles
- **Changing vehicles:** fuel, safety
- **Industry changes:** internet orders, near-sourcing, port-centric logistics
- **Supply chain fragmentation:** growth of vans
- **Skills shortages:** drivers, managers
- **Higher political profile** for freight: safety, air quality, congestion



ULTRA LOW EMISSION ZONE



Central London ULEZ in 2019 (all vehicles)

   £12.50 per day

   £100 per day



London-wide ULEZ in 2020 (heavy vehicles)

   Up to £100 per day



Inner London ULEZ in 2021 (all vehicles)

   Up to £100 per day

   Up to £12.50 per day

ULEZ standards

- Petrol: Euro 4
- Diesel: Euro 6
- Motorcycle and L-Cat: Euro 3

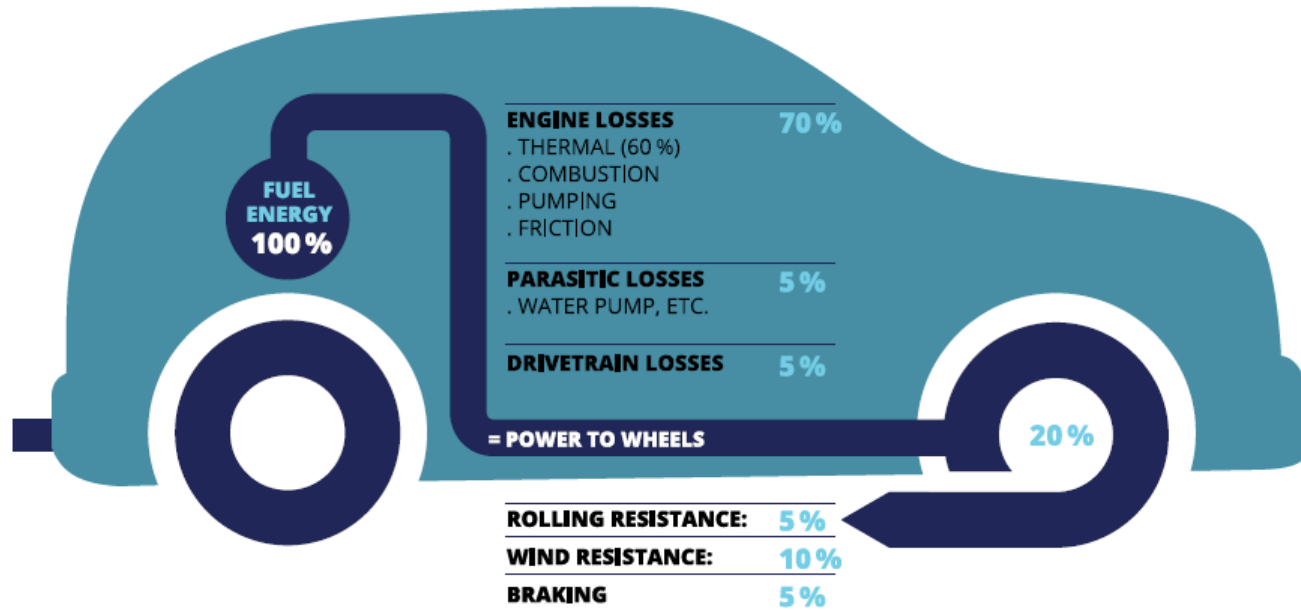
CLEANER VEHICLE CHECKER

- Mayor announced in Paris in 2017 to launch a 'Cleaner vehicle checker' for Londoners.
- We are working with a well-respected vehicle testing company that have 'real-world' emissions data from most new cars and vans sold in the UK.

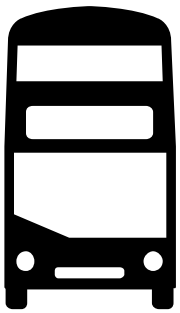


Photo: FIA Foundation

WE CAN GET MORE EFFICIENT...



Source:
Explaining
road transport
emissions,
EEA



New double decks are now hybrid, hydrogen or electric; new single decks will be zero exhaust emission from 2020



No more diesel taxis are being licensed in London and all new taxis need to be zero emission capable

RED ROUTE
No stopping at any time
Except e-taxis 1 hour
No return within 2 hrs



ZERO EMISSION VEHICLES

- New requirements for GLA fleets such as the Fire Brigade and Police force
- 'ULEV only' streets being brought in this year
- Zero Emission Zones to be introduced in town centres from 2020 and in central London from 2025



FREIGHT EVS IN LONDON

- The duty cycles of many commercial vehicles in London mean that they could be ideal for switching to zero emission technologies;
- City stop-start environments provide the optimum operating conditions for electric vehicles;
- Longer journeys (over 80 miles) within London are not that common, therefore many trips can be carried out on a single charge;
- EVs can be used for the last mile of deliveries in conjunction with neighbourhood pick-up centres.

TRIALS AND TESTING

- We have teamed up with Gnewt Cargo on a two-year trial to test a set of innovative new electric vans against comparable diesel models using smart fleet telemetry technology;
- Trial looks directly at the viability of commercial EVs as well as emissions impact and smart practices;
- Includes about 20 Voltia ENV-200 and BD-OTO eDucato vans;
- Funded by the Office for Low Emission Vehicles (OLEV) in partnership with Innovate UK.



TRIALS AND TESTING

A loan scheme for local businesses to try EV vans

Upskilling mechanics to work on EVs

Parking policies to support EVs, and promoting EVs through business fleet trials

Use of EV delivery vehicles in freight consolidation centres

Zero emission zones and EV only access to streets / loading bays

**“Low Emission Neighbourhoods” and
“Neighbourhoods of the Future”**



EV INFRASTRUCTURE

- A variety of different infrastructure solutions are needed to support the uptake of electric vehicles:

On-street
residential charging



7-8 hours

Top-up/destination
charging



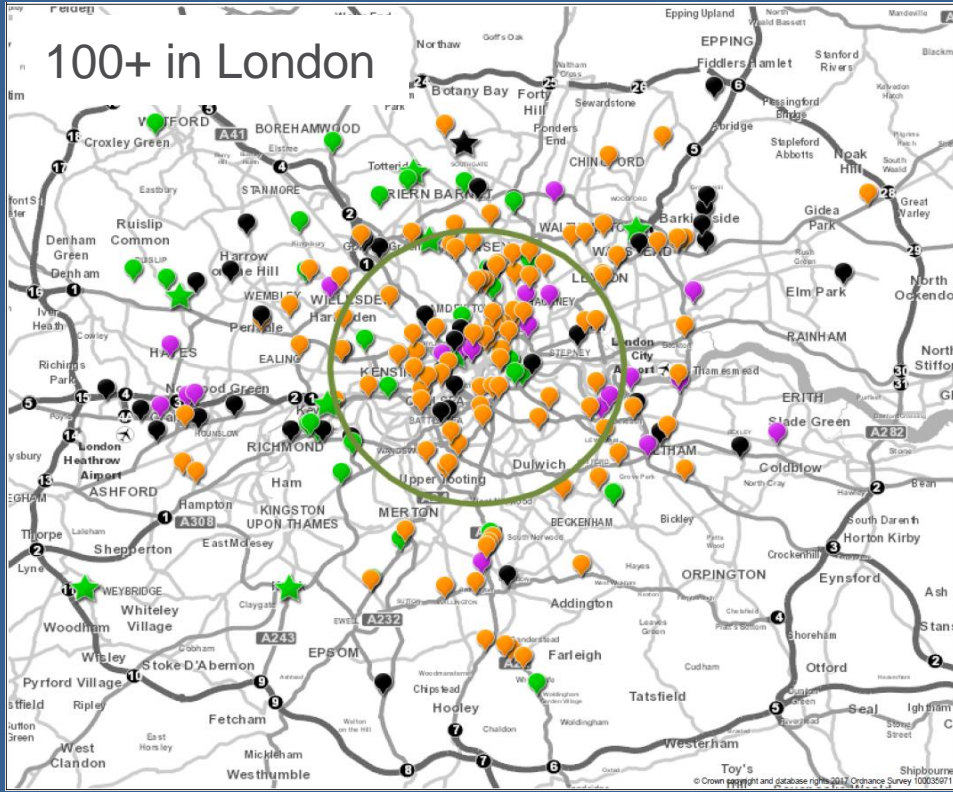
3-4 hours

Rapid
charging



20-30 mins

EV INFRACSTRUCTURE



Solutions are needed
Challenges:

London Rapid charging



20-30 mins

EV TASKFORCE

- In May the Mayor launched a new cross industry 'Taskforce' to create a **shared delivery plan** that will:
 - **Create an evidence base** that helps to identify optimum locations, taking into account the views of different user groups;
 - **Develop a conceptual model** for infrastructure needs up to 2025
 - **Manage expectations** across London by balancing a strategic, long-term approach with the ability to respond to current demand;
 - **Finance projects sustainably** ensuring funding meets longer term needs and creates opportunities (eg government / private sector).
 - **Agree a set of commitments to be delivered by key players in the industry** to pioneer and champion delivery;
 - **Clarify the role of government, including legislation.**

IOC CODE OF PRACTICE

- Reduce the impact of express delivery on air quality in cities and contributing to a zero carbon future;
- Comply with national Clean Air Zones and London's Ultra Low Emission Zone;
- Actively phase out diesel and convert to zero emission vehicles (or lower emitting fuels where appropriate);
- Reduce overall vehicle kilometres, traffic and emissions through consolidation and 'smart' solutions.



Thank you

oliver.lord@london.gov.uk