



# London Transport Policy, Planning and Strategies

Towards clean and sustainable transport

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## The Emissions Problem

- London suffers from poor air quality and emits too much carbon dioxide
  - Causes and exacerbates health problems
  - Contributes to global warming
- There is strong policy drivers from Government and the London Mayor to encourage reduction in levels of carbon and air pollution created by vehicles
- We are being infracted by the European Union for missing targets on NO<sub>2</sub> (Nitrogen Dioxide).



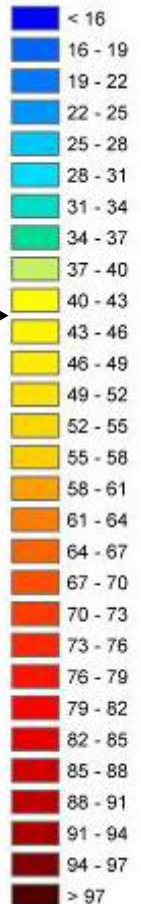
# Air Quality Hotspots

Road vehicles not the only source of emissions:

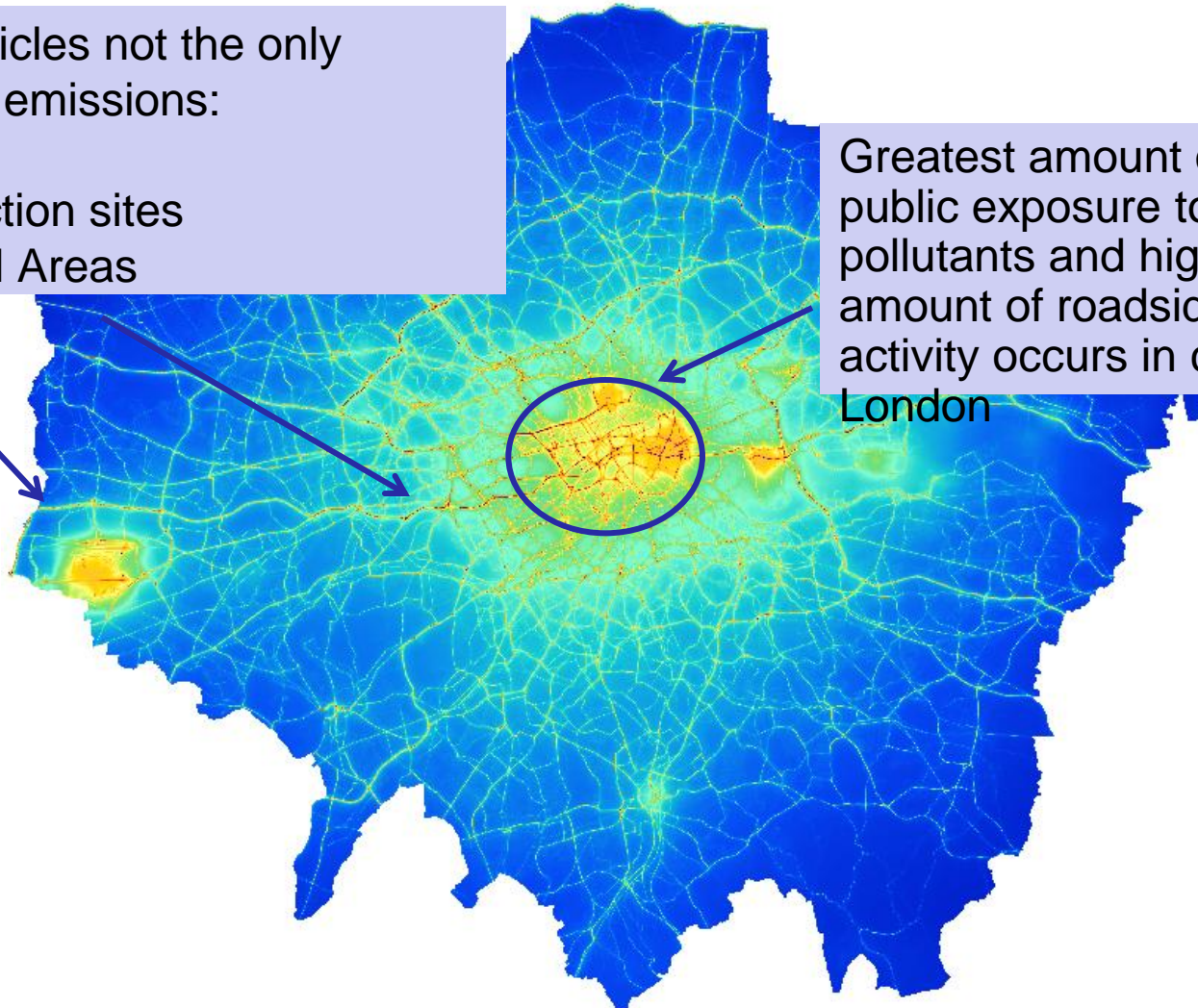
- Airports
- Construction sites
- Industrial Areas

Greatest amount of public exposure to air pollutants and highest amount of roadside activity occurs in central London

2020 NO<sub>2</sub>  
Annual Mean  
(ug m<sup>3</sup>)



EU limit →





# TfL and GLA policy:



**DELIVERING LONDON'S  
ENERGY FUTURE:  
EXECUTIVE SUMMARY**  
THE MAYOR'S CLIMATE CHANGE MITIGATION AND ENERGY STRATEGY  
OCTOBER 2011  
MAYOR OF LONDON

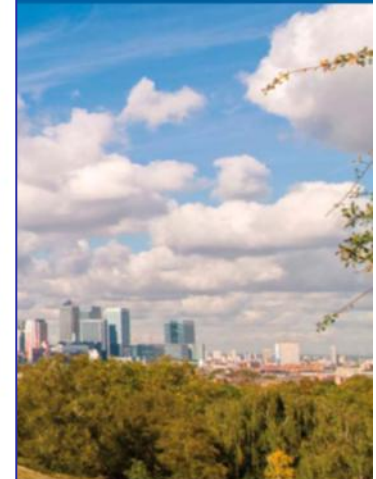


SPATIAL DEVELOPMENT STRATEGY FOR GREATER LONDON  
JULY 2011

MAYOR OF LONDON

December 2010

**Clearing the air**  
The Mayor's Air Quality Strategy



MAYOR OF LONDON



# Mayor's Air Quality Strategy

## Reducing emissions from public transport



## Promoting technology changes and cleaner vehicles

### Emissions control schemes



### Cleaner taxis



## Smarter choices and sustainable travel



## Localised action and non vehicle solutions





# Mayor's Climate Change Mitigation and Energy Strategy

Minimising CO<sub>2</sub> emissions through a shift to more carbon efficient modes of transport



Minimising CO<sub>2</sub> emissions through more efficient operation of transport



Minimising CO<sub>2</sub> emissions from transport in the GLA



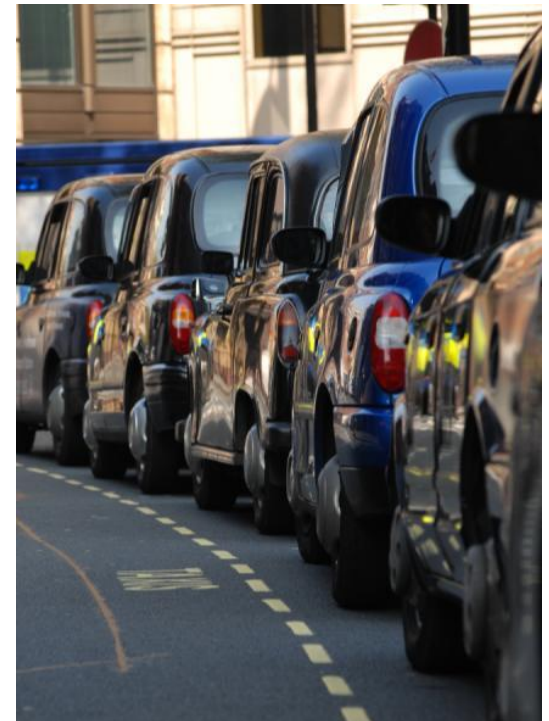
Minimising CO<sub>2</sub> emissions from transport through the use of low carbon vehicles, technologies and fuels





# Mode specific policies

- Public transport – promote, encourage, cater for demand
- Pedestrians and cyclists – promote, encourage, improve safety
- Taxis and Private Hire Vehicles – new taxis from 2018 must be zero emissions capable
- Cars and powered two wheelers
- Buses
- Freight





# Emerging policy – Transport Emissions Action Plan

- Looks at how far the funded measures take us towards meeting targets and limit values
- Sets out more funded and unfunded schemes to help achieve targets and compliance to reduce both CO2 and air quality pollutants
- Includes what we can support or lobby for, for delivery by central government or EU

Initiative name	Type	Lead	Timescale	Benefit	Currently Funded	Cost	CO2 Impact	Air quality impact
<b>Reducing demand for travel</b>								
Car lite and car free development	Policy / Strategy	Borough	Short	a	x	££	**	**
Travel Demand Management	Mixed	TfL	Short	a	✓	£	*	*
Revision to London Plan parking standards	Policy / Strategy	TfL	Short	a	x	£	*	*
Parking restriction	Infrastructure	Borough	Short	a d	x	£	*	*
Continual review of Congestion charge levels and discounts	Policy / Strategy	TfL	Medium	a c	x	£	**	**
<b>Provision of alternative modes</b>								
Line Upgrade programme	Infrastructure	TfL	Short	a	✓	£££	*	*
Crossrail (including enhanced stations)	Infrastructure	TfL	Medium	a	✓	£££	*	*
New Public Transport infrastructure	Infrastructure	TfL	Long	a	x	£££	*	*
Pedestrian countdown programme	Infrastructure	TfL	Short	a	✓	£	*	*
Mayor's Better Streets programme	Infrastructure	TfL	Short	a	✓	£	*	*
Legible London rollout	Infrastructure	TfL	Short	a	✓	£	*	*
A "tube network" for the bike	Infrastructure	TfL	Short	a	✓	££	*	*
Cycling vision supporting measures	Information / Promotion	TfL	Short	a	✓	£	*	*



# Low Emission Vehicles Road Map

Research into alternative fuels, and measures to encourage uptake of cleaner vehicles

1

2

3

4

5

A **whole life-cycle analysis** (LCA) of the alternative fuel and infrastructure options available to each vehicle now and potential changes up to 2031 and beyond.

Details of the **infrastructure required** and the feasibility of delivering this infrastructure for each alternative fuel option.

**Conditions required in order to encourage uptake** of alternative fuels and technologies for each vehicle type.

**Agree the most realistic fuel and technology mix for each vehicle type** for a high, medium and low scenario.

**Develop a trajectory** for low emission vehicles in London for each scenario agreed in iv.



# Low Emission Zone (LEZ) - coverage

- The LEZ covers Greater London (1,580 square kilometres)
- Operates 24/7, 365 days a year
- Targets oldest and most polluting vehicles



## Affected vehicles at a glance - cars and motorcycles are not affected





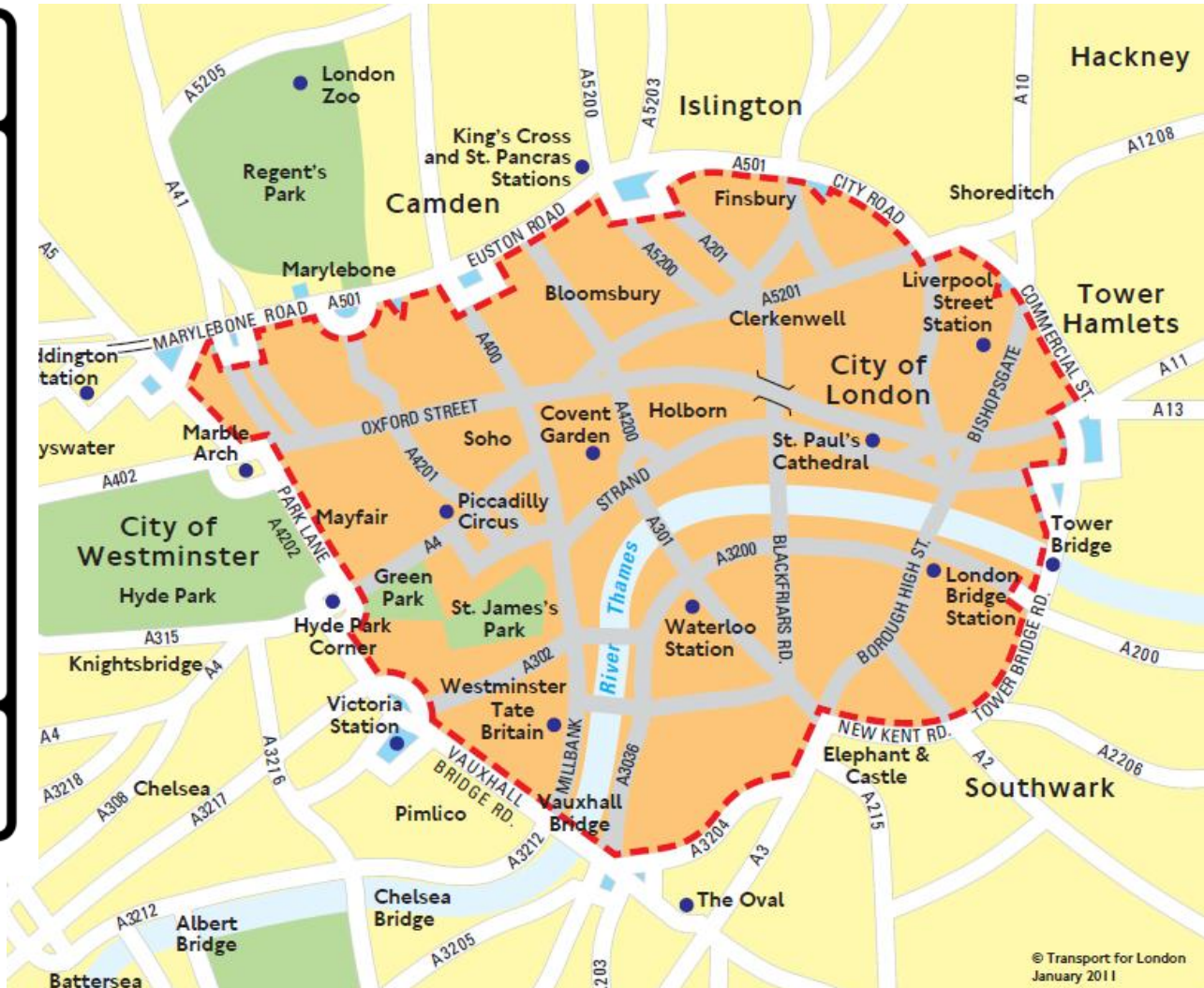
# Low Emission Zone (LEZ) - effectiveness

- Compliance with current (January 2012) standards high at 92 per cent for lorries, buses and coaches, and 98 per cent for vans and minibuses.
- Very effective in reducing emissions. Phases 1 and 2 of the LEZ reduced emissions of  $PM_{10}$  by 28 tonnes in 2008
- LEZ Phase 5 will be introduced in 2015, which will require all TfL buses to meet a Euro IV standard requirement for  $PM_{10}$  and  $NO_x$



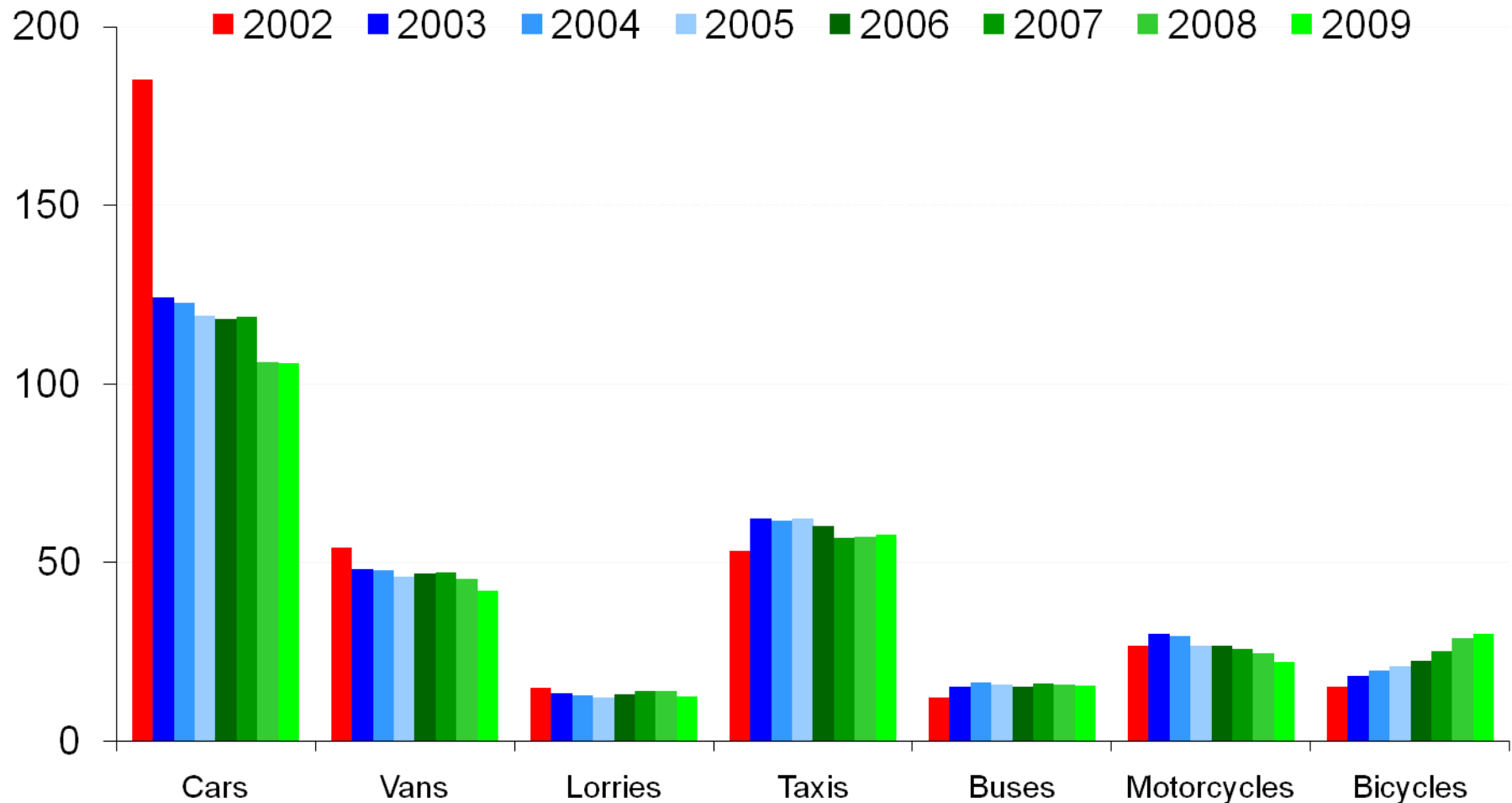


# Central London Congestion Charging Zone





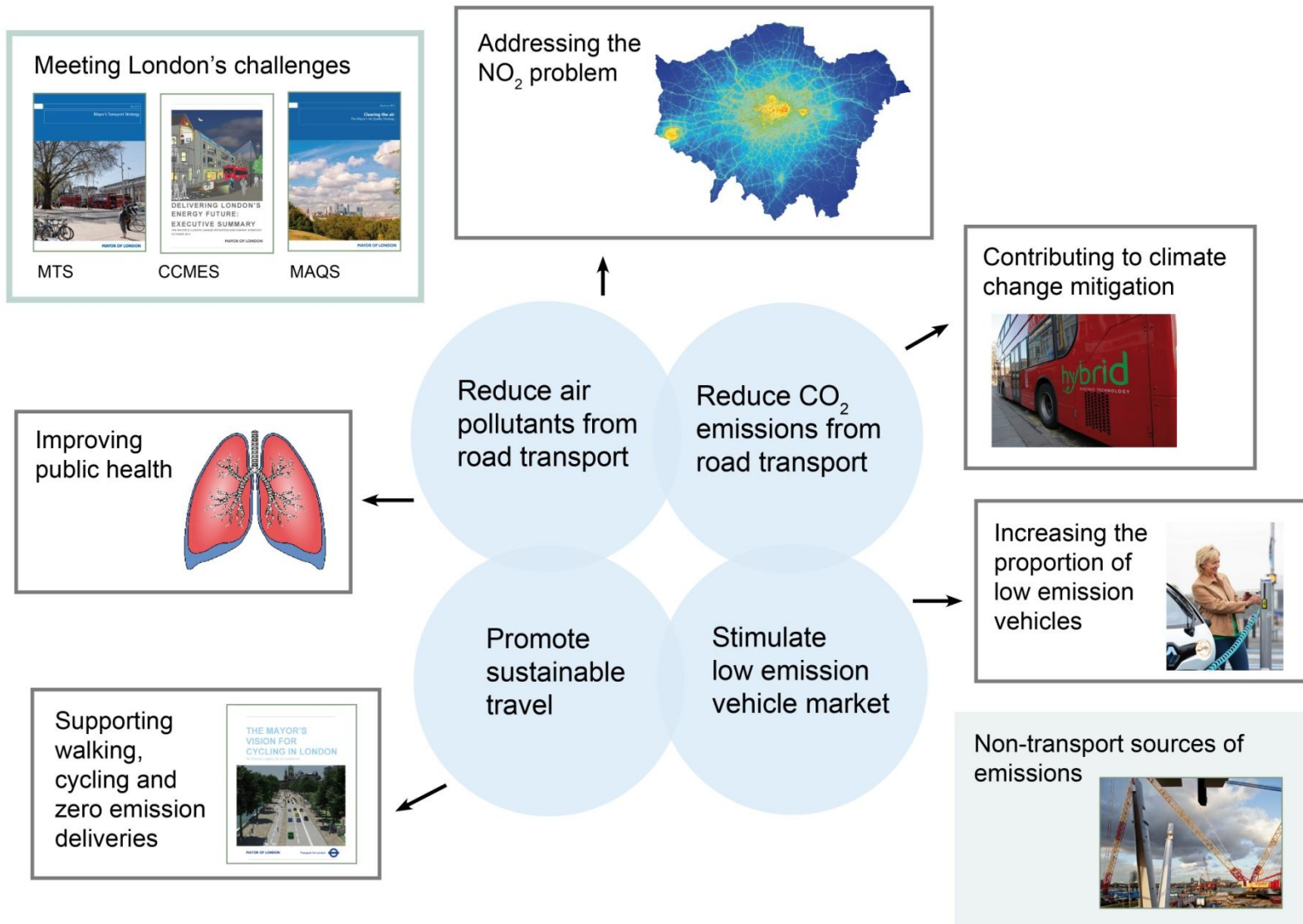
## Average daily traffic entering Congestion Charging zone\*



\* During charging hours (07.00-18.00)

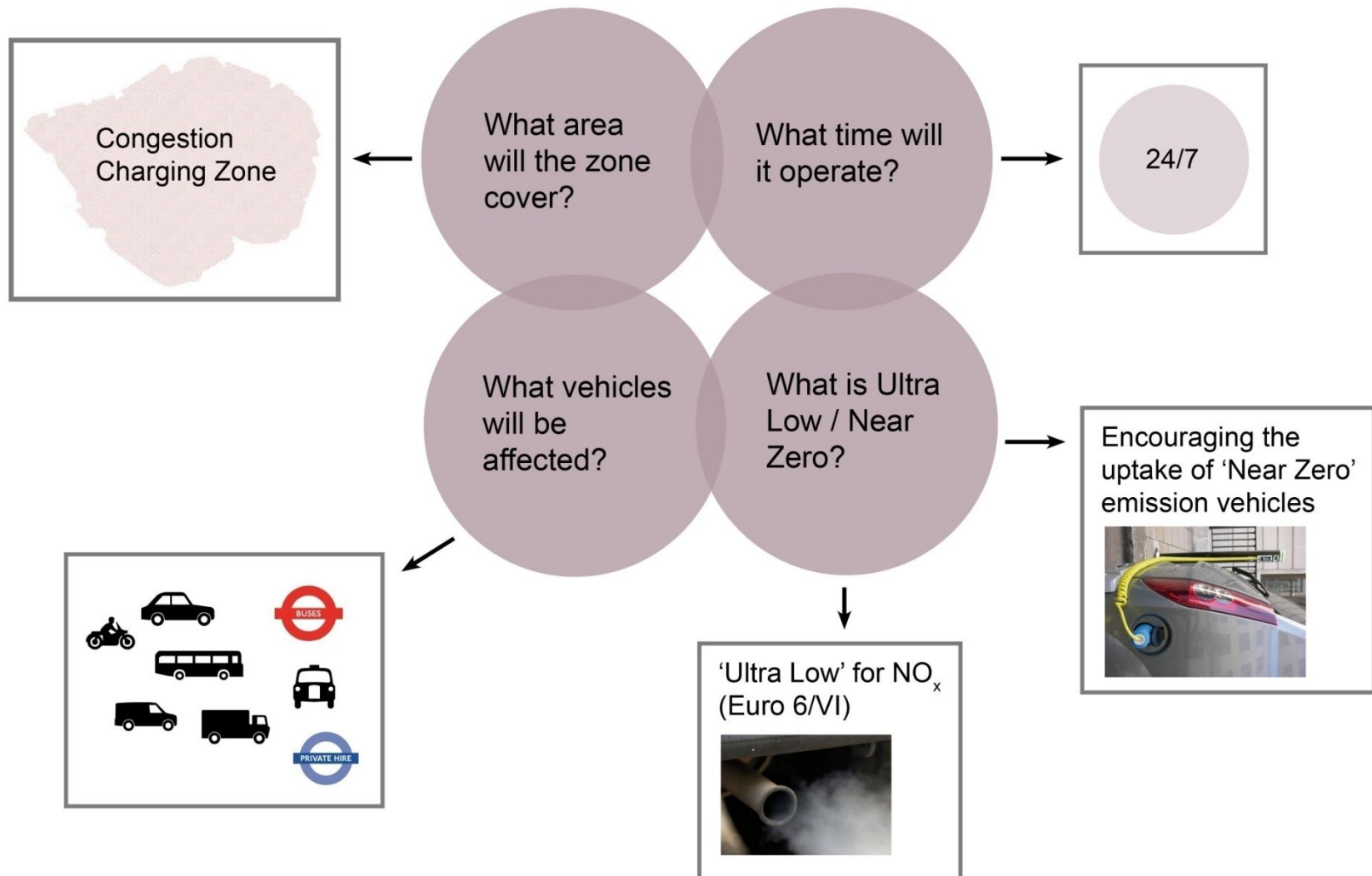


# Ultra Low Emission Zone... why?





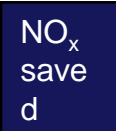






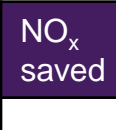





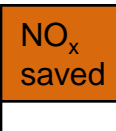







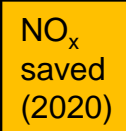






# Key questions





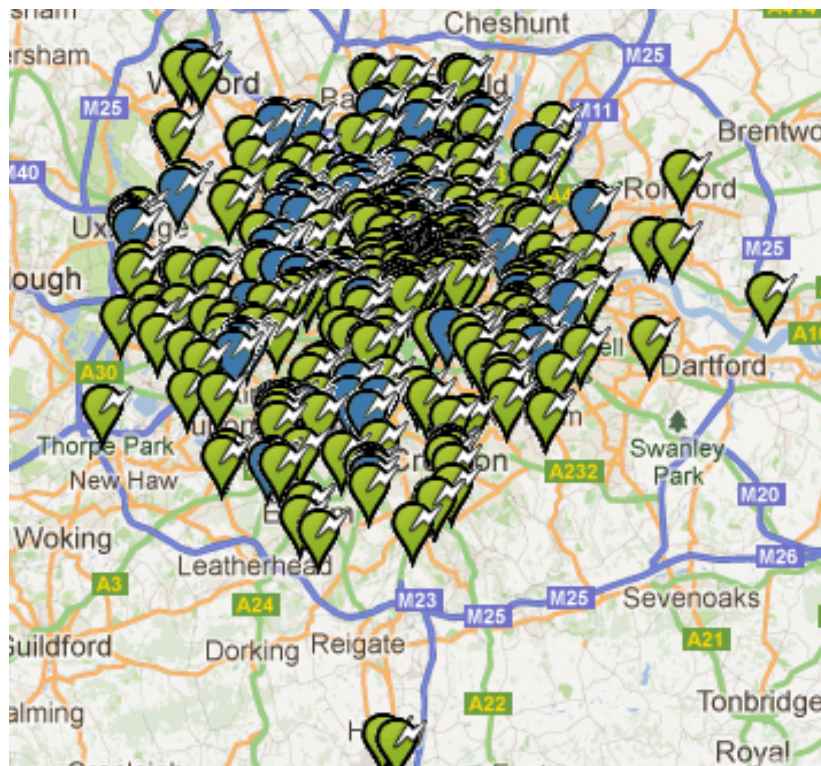
# Packages for consideration

	TfL services			Hybrid diesel double decker Zero emission single decker	 NO <sub>x</sub> save d  26%		
				Revisit age limit, all newly licensed vehicles Near Zero from 2018			
				Revisit age limit, all newly licensed vehicles Near Zero from 2018			
	Greener fleets			 Euro VI	 High charge (eg LEZ)	 NO <sub>x</sub> saved  11%	
							
	Ultra Low			 Euro 4 (petrol) Euro 6 (diesel)	 Lower charge	 NO <sub>x</sub> saved  9%	
							
				 Euro 3			
	Near Zero (2020 or 2025?)			 <~75g/ km CO <sub>2</sub>	 Lower charge	 NO <sub>x</sub> saved (2020)	 NO <sub>x</sub> saved (2025)
						10%	15%
				 Euro 4			



# Source London – 1,400 public charge points

- Launched May 2011
- 1400 charge points are currently available across London





# Future expansion of charging points in London

- Bolloré Group selected to take over Source London scheme from this summer.
- 6,000 charge points by 2018
- Potential electric car sharing scheme launching 2015, based on the French Autolib' model
- Rapid charging
  - How many and where?
  - Implications on the electricity grid?
- Wireless inductive charging
  - Trials being undertaken



Questions?

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