

MAYOR OF LONDON

The Road to Zero-carbon Transport in London

14 January 2021

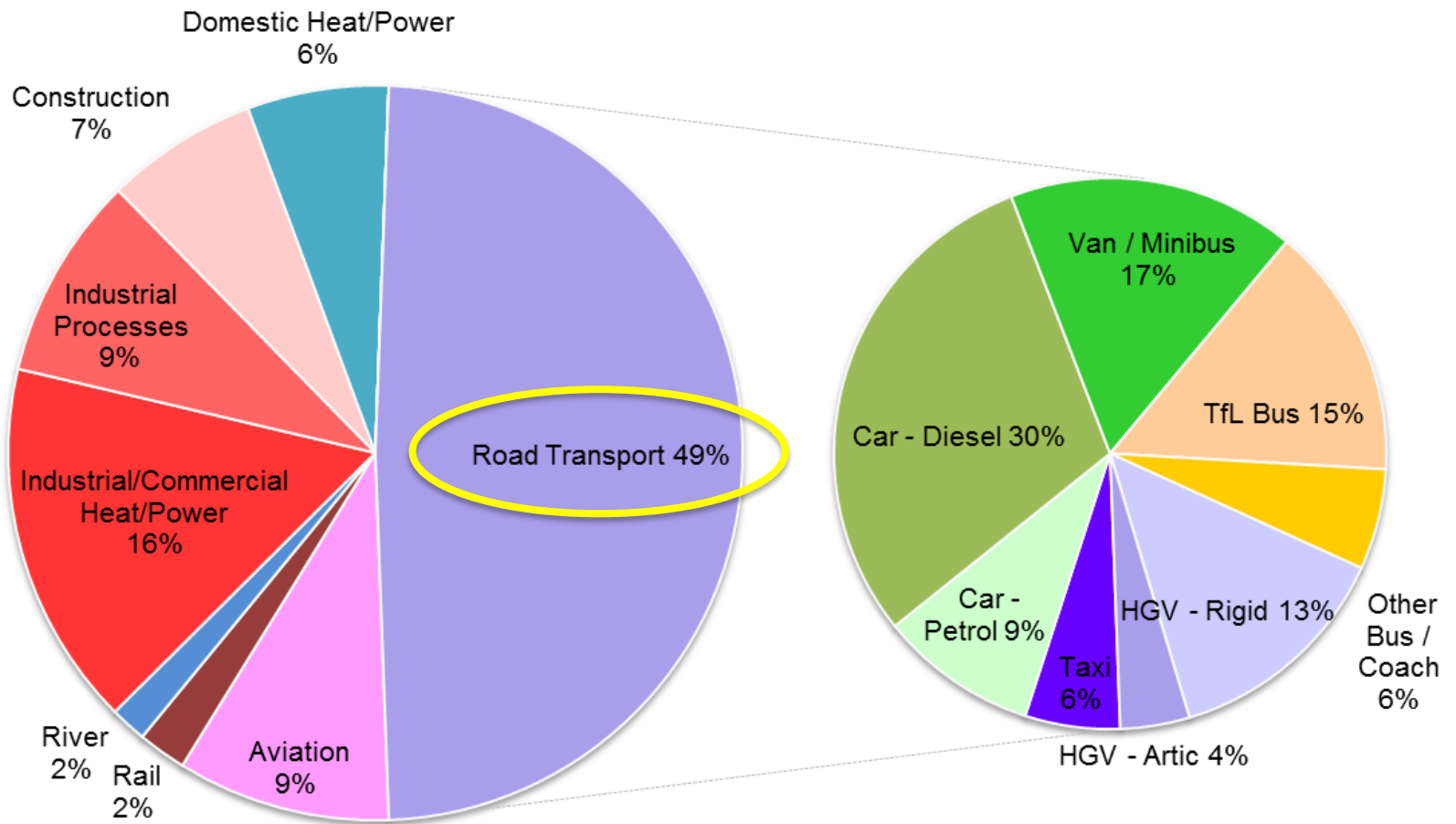
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Greater London Authority



Why?

- Air pollution emissions contribute to **the climate emergency**
- Air pollution harms our lungs and worsens chronic illness, such as asthma, lung and heart disease
- **Thousands of Londoners die prematurely each year** because of toxic air pollution. Nationally around 40,000 premature deaths are caused each year
- London's toxic air is **stunting the growth of children's lungs** in ways that will affect them for the rest of their lives
- Toxic **air pollution is a cause of cancer** and it increases the risk of asthma, stroke and dementia
- Emerging evidence of the link between air pollution and the most **severe effects of COVID-19**

SOURCES OF NO_x IN LONDON



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INTEGRATED STRATEGIES



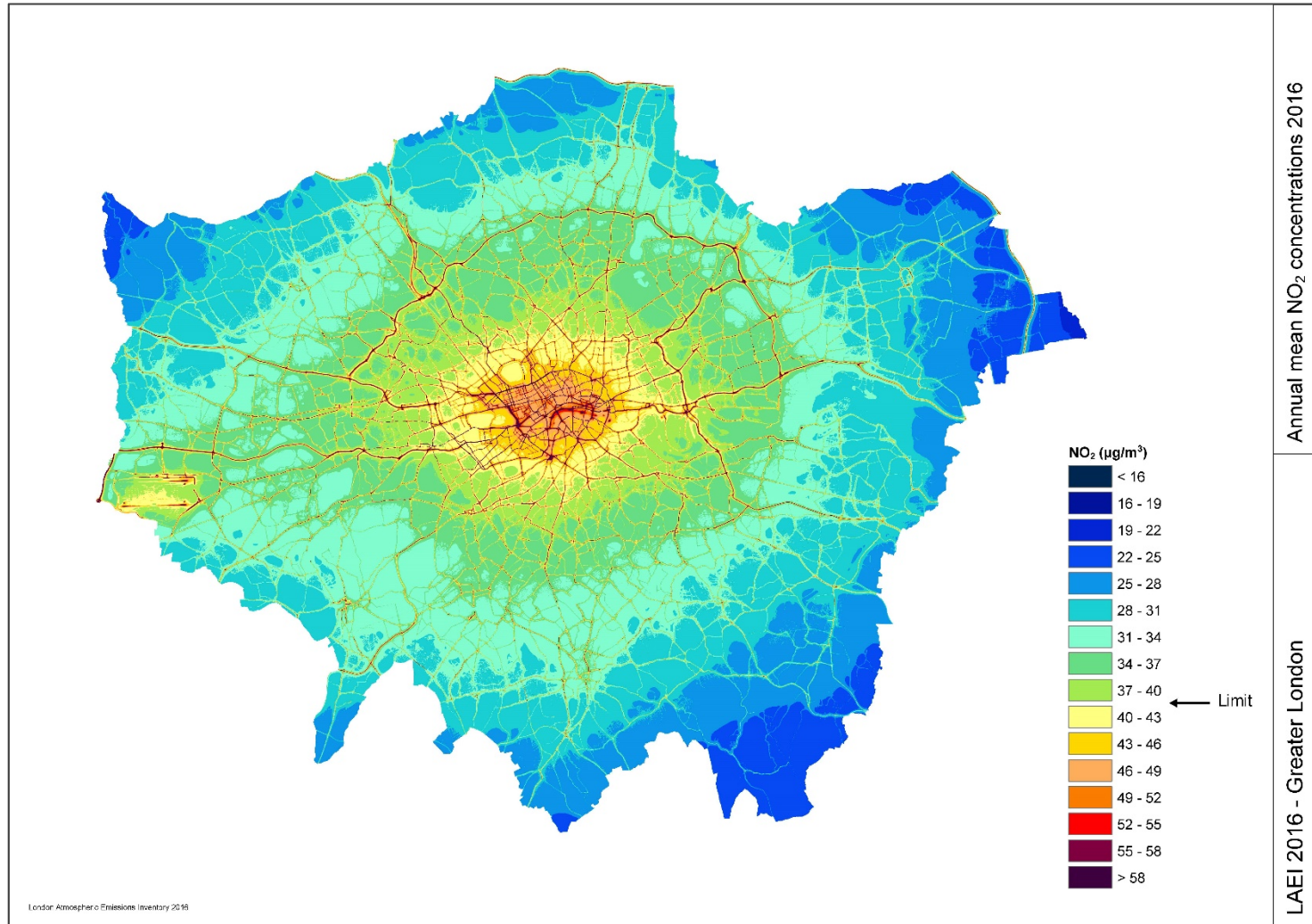
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		NOW	2020	2025	2030	2035	2040	2045	2050	
London action	Demonstrating technologies	Zero emission capable taxis	Town centre Zero Emission Zones							
		Electric single-deck buses; bus charging infrastructure								
		Supporting low emission freight								
	Changing purchasing patterns	Deliver a major expansion in electric vehicle charging points	Further investment in charging and refuelling infrastructure					All newly registered heavy vehicles driven in London zero emission		
		At least 15 hydrogen fuelling stations installed in and around London				All newly registered cars and LGVs driven in London zero emission				
		All new taxis zero emission capable	All new private hire vehicles zero emission capable							
		All new buses will be hybrid, electric or hydrogen	Pan-London approach to parking charges for zero emission vehicles							
	Fleetwide adoption and managing congestion	Keep Congestion Charge under review and support borough measures	Develop a new, more sophisticated way of paying for road use, integrating existing and proposed emissions-based and congestion charging schemes							London-wide Zero Emission Zone
		Emission Surcharge/Central London Ultra Low Emission Zone	Expanded Ultra Low Emission Zone	Central London Zero Emission Zone	All buses zero emission or hybrid	Wider Zero Emission Zone				Zero emission road transport
			Tighten Low Emission Zone emission standards for heavy vehicles		All taxis and PHVs zero emission capable		All buses zero emission			
				All public sector car fleets zero emission capable						
National action		Increase use of renewable electricity generation for the National Grid until it results in net zero carbon emissions								
	Plug-in vehicle grants	Taxation encourages ultra low emission vehicles over conventional vehicles					Taxation discouraging ownership of non-zero emission vehicles			
	Funding low emission vehicle research - especially heavy vehicles	Financial incentives for businesses/manufacturers								
	Vehicle tax exemption for zero emission	National diesel scrappage scheme								

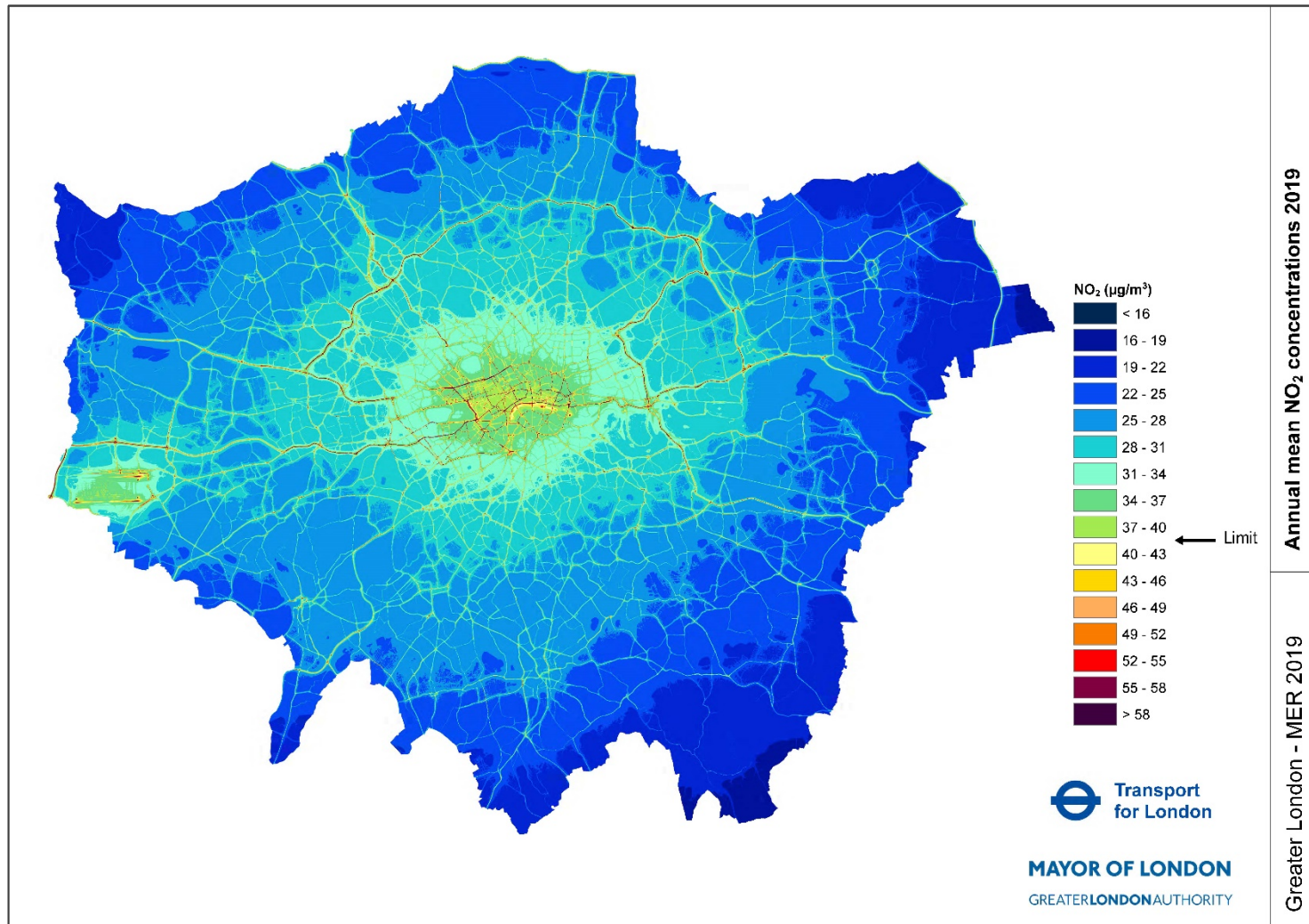
Key: Taxis/PHV (Black), Buses (Red), Fleets (Purple), Congestion reduction (Olive), Infrastructure (Pink), Emissions Charging Zones (Blue), Taxation (Dark Blue), Aim (Yellow)

**Recent improvements in nitrogen
dioxide (NO₂)**

NITROGEN DIOXIDE (2016)



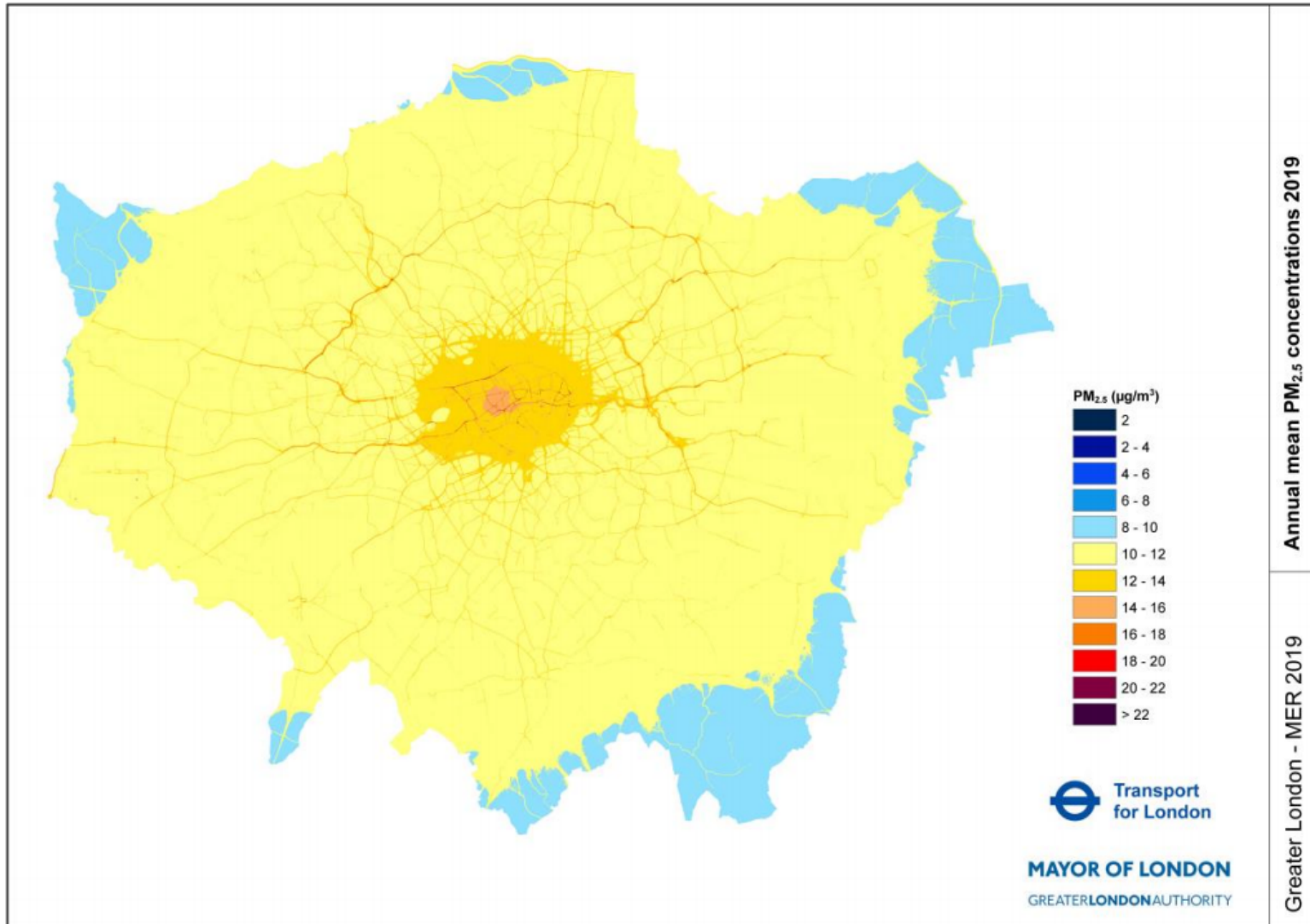
NITROGEN DIOXIDE (2019)



RECENT IMPROVEMENTS

- The number of Londoners living in areas exceeding the legal limit for NO₂ fell from over 2 million in 2016 to 119,000 in 2019, **a reduction of 94 per cent.**
- The number of state primary and secondary schools in areas exceeding the legal limit for NO₂ fell from 455 in 2016 to 14 in 2019, **a reduction of 97 per cent.**
- Between 2016 and 2019 the reduction in annual average nitrogen dioxide at roadside sites in central London was **five times the national average** reduction. This shows the most significant improvements in London have been driven by local, as opposed to national, policy.

MORE WORK TO DO...



Ultra Low Emission Zone

ULEZ EXPANSION AND LONDONWIDE LOW EMISSION ZONE

Operating 24/7

ULEZ Central London from 8 April 2019

in the same area as the Congestion Charge

ULEZ extension to Inner London from 25 Oct 2021

up to North & South Circular roads, including existing central London zone (all vehicles)



LEZ London Wide from 1 March 2021

(lorries and other vehicles over 3.5T)

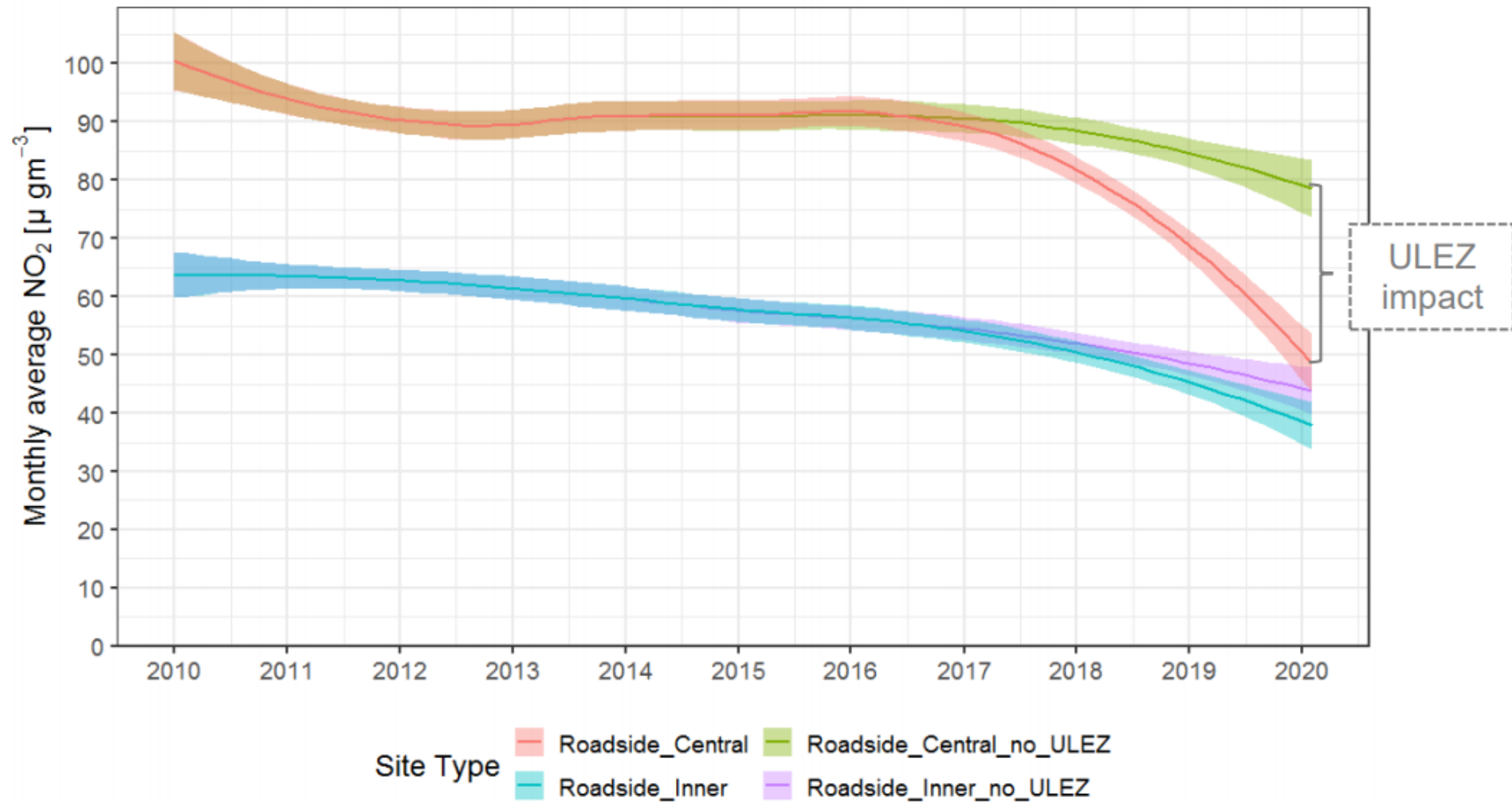


Greater London Authority Boundary



For a full list of affected vehicles see tfl.gov.uk/ulez

Trends in NO₂ in London vs. no ULEZ scenario



- 80 per cent of vehicles meet ULEZ standards
- Roadside NO₂ reduced by over a third
- NO_x emissions from road transport reduced by 31 per cent

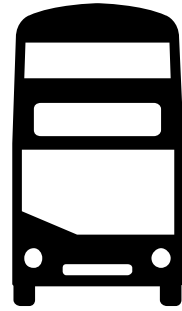
ULEZ SCRAPPAGE SCHEMES

£48m scrappage funding has been made available to encourage a switch to cleaner vehicles.

- **Vans and minibuses.** A range of options for microbusinesses, sole traders and charities operating minibuses: Now fully allocated.
- **Heavy vehicles** scrappage scheme for non-compliant HGVs, vans and other specialist vehicles (over 3.5 tonnes) and buses, coaches and minibuses (over 5 tonnes): Now fully allocated
- **ULEZ car and motorcycle scrappage scheme** for low income and disabled Londoners. Details available at tfl.gov.uk/car-motorcycle-scrappage



Cleaning up the bus fleet

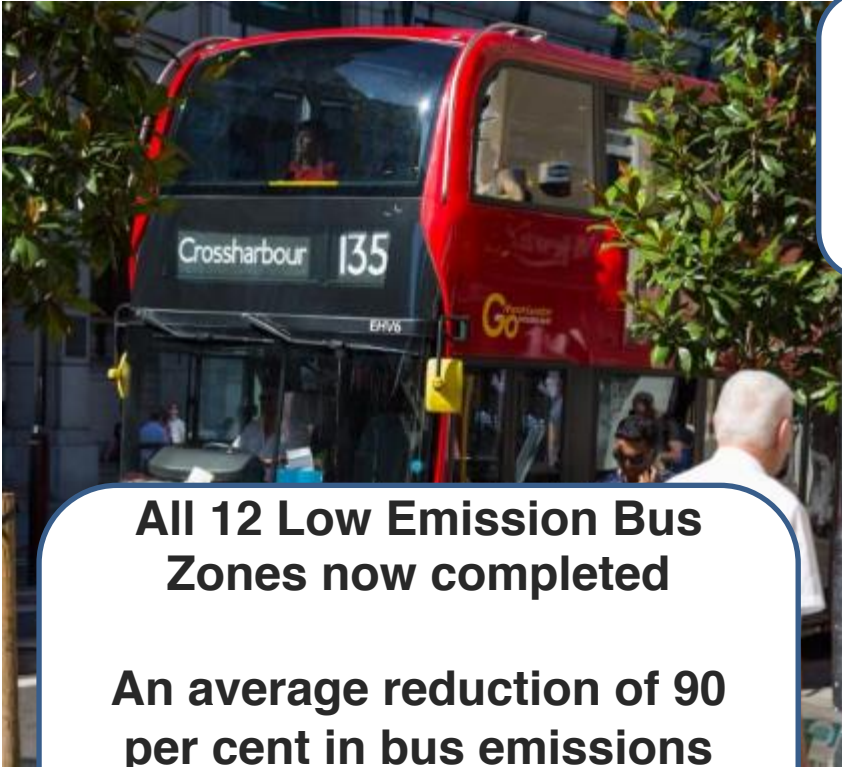


Only new double decks hybrid, hydrogen or electric from 2018; new single decks will be zero exhaust emission from 2020

Target: Euro VI fleet by 2020; zero emission fleet by 2037 at the latest

Over 380 pure electric buses and TfL has made three of its double-deck routes exclusively electric

LOW EMISSION BUS ZONES



The first LEBZ along Putney High Street has reduced the number of hours breaching legal limits by more than 99 per cent (vs 2016).

All 12 Low Emission Bus Zones now completed

An average reduction of 90 per cent in bus emissions

An average reduction in NO₂ concentrations of 28%



Cleaning up the taxi fleet



No more diesel taxis from 2018 and new taxis will need to be zero emission capable

Target: Zero emission capable taxi fleet by 2033 *at the latest*



3,800+
licensed

Impact of COVID on London's air quality

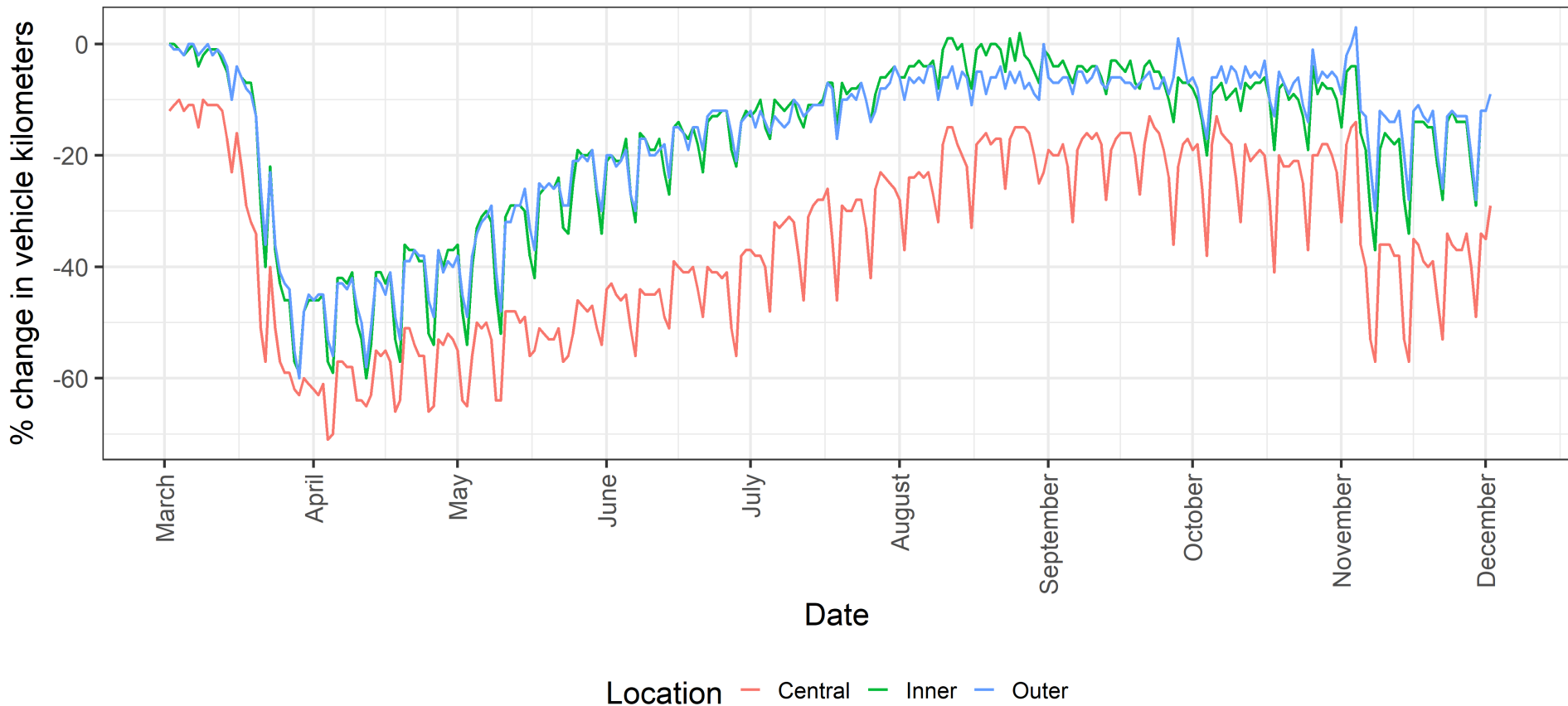
ATTITUDES TOWARDS AIR POLLUTION AND COVID

- 77% of Londoners say that they worry about air pollution as a public health issue
- 70% of Londoners noticed better air quality through lockdown
- Around 4 in 10 Londoners draw a link between coronavirus impact and air pollution



COVID-19: TRAFFIC REDUCTION

Change in daily vehicle km travelled in London (2020 compared to 2019)

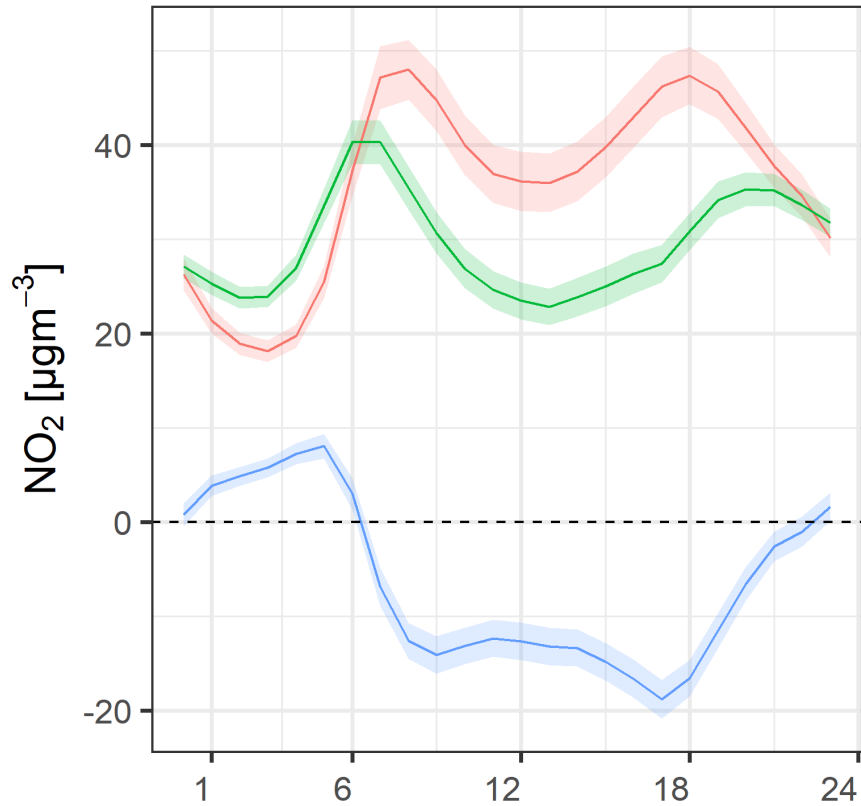


MAYOR'S STREETSPLAN



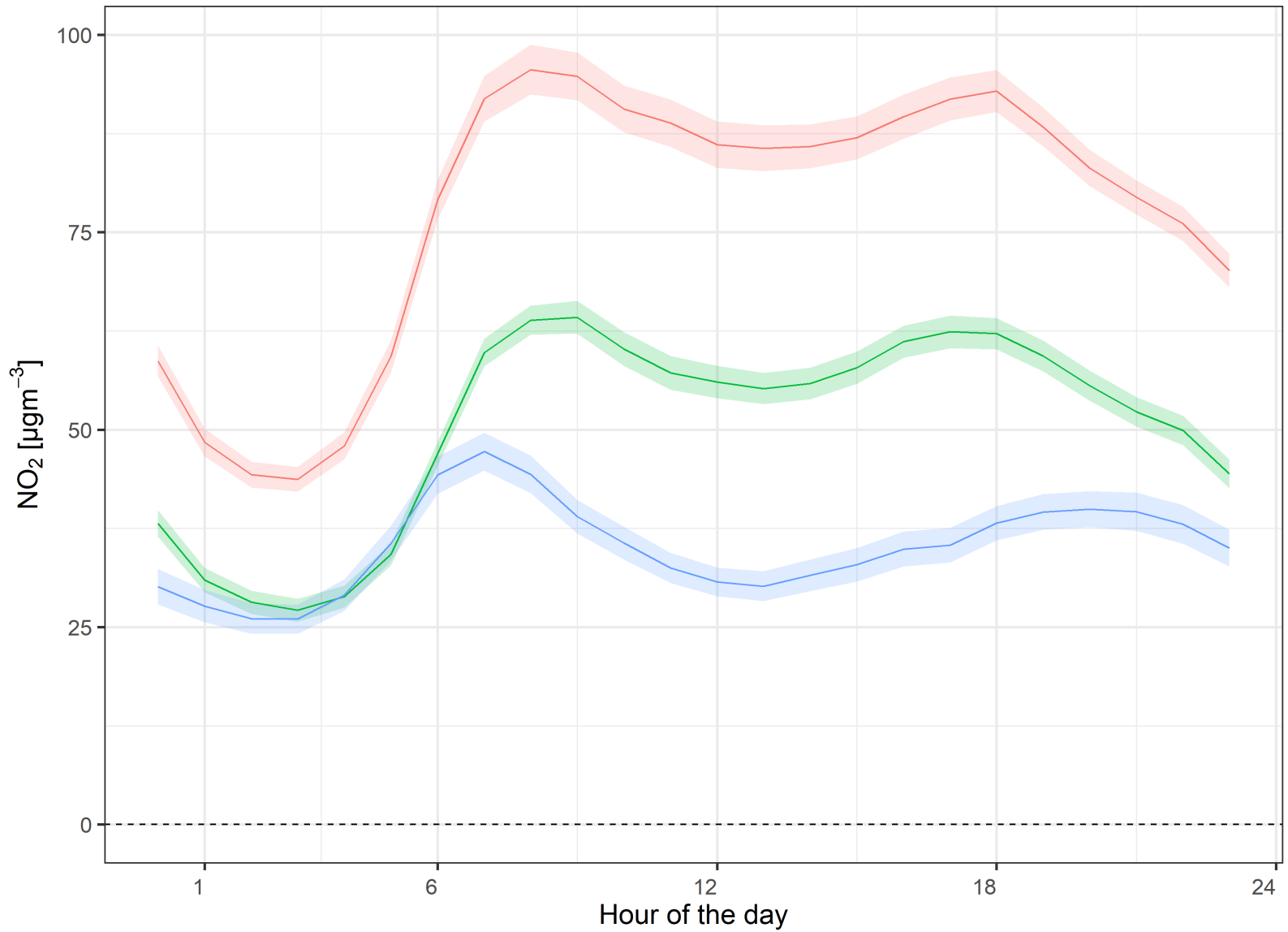
- Quick expansion of cycling network
- Town centre changes to allow space for social distancing
- Reduce traffic so more people can walk and cycle

COVID-19: NO₂ REDUCTION



Period — 1 Jan - 16 March — 16 March - 20 April — Difference

Change in hourly average NO₂ (weekdays, central London)



Period — Pre-ULEZ — With ULEZ — Post-COVID

SUMMARY

- The Mayor's Transport Strategy, Environment Strategy and London Plan include ambitious policies to tackle the twin dangers of air pollution and climate change
- Many of these policies have now been implemented, delivering significant reductions in NO_x Londonwide
- Lots still to do to meet our air quality and climate objectives

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Thank you.



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www.london.gov.uk/environment-newsletter

