



Delivering the Mayor's Transport Strategy 2020/21

June 2021

MAYOR OF LONDON



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We have made rapid changes to street layouts to enable active travel

Summary

The following is the fourth annual progress report on the Mayor's Transport Strategy. It summarises the delivery of the strategy and the relevant elements of the London Environment Strategy.

The global coronavirus pandemic has had an unprecedented impact on how people travel in the city. The report covers the period of the pandemic and the initial stages of London's emerging recovery. The pandemic presents both challenges and opportunities to the advancement of mayoral transport aims.

Transport for London's (TfL) focus is on measures to promote mode shift to walking, cycling and public transport to improve Londoners' health and air quality, and to reduce carbon emissions. Before the pandemic, there had been a steady increase in trips by sustainable modes, although progress had slowed in recent years.

Over the last year, to respond urgently to the pandemic and enable social distancing, working closely with the Department for Transport (DfT) and the boroughs, TfL has made rapid temporary changes to street layouts to increase space for walking and cycling. Public transport services were operated at near full schedules, so key workers could make essential trips and to enable social distancing as more people began to travel again.

As London emerges from the pandemic, public transport use remains below pre-pandemic levels, while car use is recovering more quickly, particularly in outer London. Cycling numbers are currently higher than their pre-pandemic levels. The extent to which people's activities return to pre-pandemic patterns has yet to be fully seen. More people will potentially be working from home and buying goods online, potentially accelerating trends that existed before the coronavirus pandemic.

The pandemic has revealed some of the deep inequalities in Londoners' health and intensified the need for transport to underpin an inclusive recovery. The direction of travel set out by the Mayor's Transport Strategy remains the right one to support the recovery, however the pandemic has shown that in many areas an increased pace of delivery will be required to enable London's recovery.

Looking forward, the pandemic has broader implications for transport policy in London, in particular to avoid a car-led recovery and to support a sustainable, inclusive economic recovery in the immediate, short and medium term. Our role in enabling Londoners to travel using active modes of transport (and get their 20 minutes active travel per day), is more important than ever to support public health and reduce the risks associated with the coronavirus and other illnesses.

As a result of the pandemic, investment in Healthy Streets and campaigns to attract customers back on to public transport are essential to achieve a more sustainable, healthier and more resilient future.

To deliver the needed improvements efficiently and effectively, TfL will continue to optimise delivery by reviewing progress against the Mayor's Transport Strategy outcomes and reflecting this in the prioritisation of its investment programme and Business Plan. Underpinning all of this is the necessity for TfL to have stable and sufficient long-term funding. This will benefit not just London, but the entire UK.

Purpose and scope of report

This is the fourth annual progress report summarising delivery of the Mayor's Transport Strategy.

Since the first lockdown in March 2020, the global coronavirus pandemic has had a huge impact on London and how Londoners travel. This makes it a challenging year to report on.





Public transport will be safe, affordable and accessible to all

The Mayor's Transport Strategy

The Mayor's Transport Strategy, published in March 2018, outlines the Mayor's vision for transport in London. The overarching aim of the Mayor's Transport Strategy is to reduce Londoners' dependency on cars and to increase the active, efficient and sustainable (walking, cycling and public transport) mode share of trips in London to an ambitious 80 per cent by 2041. In addition to the overarching mode share aim, the The Mayor's Transport Strategy is focused on achieving nine outcomes grouped under one of three broad themes:

Healthy Streets and healthy people

- London's streets will be healthy, and more Londoners will travel actively
- London's streets will be safe and secure
- London's streets will be used more efficiently and have less traffic on them
- London's streets will be clean and green

A good public transport experience

- The public transport network will meet the needs of a growing London
- Public transport will be safe, affordable and accessible to all
- Journeys by public transport will be pleasant, fast and reliable

New homes and jobs

- Active, efficient and sustainable travel will be the best option in new developments
- Transport investment will unlock the delivery of new homes and jobs

While this report provides an update on progress towards achieving the aims of the Mayor's Transport Strategy as per previous progress reports, this year's progress report also sets out considerations for how we move forward in light of the pandemic to support London's economic recovery. This year's report highlights the latest thinking on the scenarios we introduced in last year's report, but which are particularly

applicable to London's recovery from the pandemic. These scenarios consider the medium-term future economic and travel context, and how the mode share aim and other policies in the Mayor's Transport Strategy might be delivered in the context of each of these scenarios.

The London Environment Strategy

TfL has a key role to play in delivering the London Environment Strategy (LES), published in May 2018. In addition to measures set out in the Mayor's Transport Strategy for environmental improvements to the transport system, including the Ultra Low Emission Zone (ULEZ), TfL is largely responsible for significant measures within the LES. This includes responsible procurement, reducing waste, our energy strategy and work to accelerate the reduction in CO₂ emissions.

The London Plan

The 2021 London Plan is now formally published, and it aims to deliver far more new homes and to support strategies including the Mayor's Transport Strategy. It has the highest housing target ever for London, at 52,000 new homes a year. The London Plan will contribute to embedding active, efficient and sustainable travel in London through promoting high-density, mixed-use development with associated transport investment and a restrictive approach to car-parking provision.

The impact of the pandemic on travel demand

The global coronavirus pandemic in 2020 led to widespread disruption and change to travel in London (and to the aspects of people's daily lives that underlie travel demand). This was on a scale and duration unprecedented in modern times.



Although there are encouraging signs that the UK's comprehensive vaccination programme is enabling the steady and sustained resumption of normal daily life, there remains considerable uncertainty around key aspects of London's recovery and the longer-term impacts of the pandemic on travel behaviour that will affect future travel demand.

The aims, outcomes and policies of the Mayor's Transport Strategy – in particular, the need to enable continued mode shift – are essential to avoid a car-led recovery. The Mayor's Transport Strategy continues to shape our response and the boroughs' response to the restart and recovery phases for the transport network.

Immediate impact

The pandemic had a sudden and dramatic impact on travel demand. While public transport demand fell significantly, reflecting lockdown restrictions, car travel was more resilient. On the whole, active modes benefited from lockdown conditions, although the nature of travel also changed dramatically, with a move away from commuting towards more local travel.

The demand for travel not only fell to a fraction of its usual amount in a matter of days, but it was also transformed in many other ways. The timing of journeys changed, and in many cases so did their destinations, creating a shift towards more local travel.

Finally, people's attitudes to different modes quickly changed (such as a greater willingness to cycle), reflecting the challenges brought by the pandemic, and with that the choices they made about their travel and behaviours.

Changes in travel demand

Travel demand in London continues to be volatile, owing to the Government's lockdown measures. The graph on the right shows trends on the principal modes since the start of the pandemic. The impact of the first lockdown in March 2020 was dramatic – Underground demand falling to about five per cent of normal levels in the space of a few days, with bus demand falling to about 15 per cent of normal.

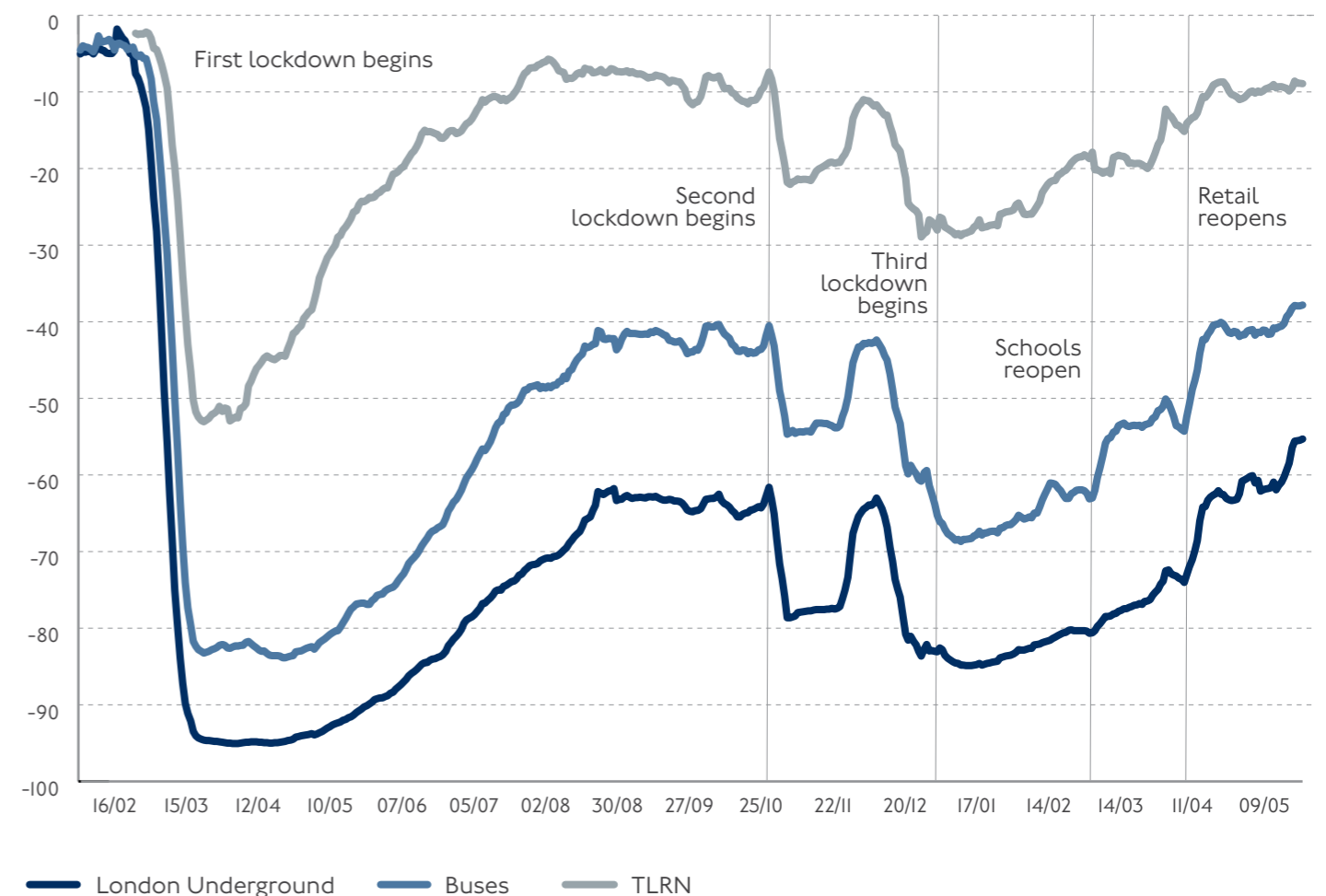
Demand on both modes remained subdued as restrictions were eased over the summer – Tube typically seeing 30 per cent of normal demand and bus 50 per cent.

Car use, however, fell less dramatically, and has recovered more strongly, reaching near normal levels over summer 2020.

Data from the DfT suggests that total traffic in London fell by 18 per cent in 2020, with car traffic declining by 20 per cent.

Trends over the winter reflected the second and third waves of the pandemic. The reductions in demand were less than in spring, although still dramatic, but the differences between the principal modes remained, with car travel staying above 70 per cent of normal levels throughout.

Change in demand on the main transport networks in 2020/21 (percentage change)
(7-day moving average relative to equivalent period in 2019)





Advanced cleaning has been carried out across the network

The active modes – walking and cycling – benefited from the pandemic, given the enforced changes to many people’s daily activities and the fact that active travel was one of the few permitted activities during lockdown.

Cycling demand was transformed from primarily radial commuter trips to more local leisure trips closer to people’s homes. On the best available estimate, cycling trips exceeded normal demand during the summer and autumn of 2020, with the latest data through to March 2021 showing typical weekly net increases of between five and 20 per cent on pre-pandemic values. DfT data also suggests a large increase in cycling on London’s roads overall in 2020.

Although detailed data is not available outside of central London, it is reasonable to assume many more local walking trips were also made during the year, but at the expense of segments of walking associated with commute trips (such as those to and from stations).

There have also been changes to the nature of travel, in terms of changes to origin/destination patterns, trip lengths and trip timing. In terms of mode share, the data shows that car travel has been relatively resilient, because of perceived concerns about the risk of virus transmission. This also caused changes to people’s daily activities, for example, remaining at home in outer London and taking personal business trips by car, rather than commuting to work by public transport. The long-term recovery of public transport demand remains to be seen. The fact car demand approached ‘normal’ levels, in parallel with continuing low public

transport demand, raises concerns that a preference for car travel may persist after the immediate threat from the virus has receded. This is a challenge shared by many other cities worldwide.

Another dimension is the spatial pattern of trip making. There has been a large reduction in radial commuting to central London, and in ‘follow on’ trips that would previously have been made by workers in the Central Activities Zone (such as leisure trips after work). This has also been a feature of some inner London boroughs while, within the context of restrictions on mobility, travel in some outer London boroughs has been much more resilient (partly reflecting increased car use and local active travel in these areas). Prior to the pandemic, we saw traffic crossing the London boundary cordon increasing by 5.5 per cent from 2010 to 2019.

This picture presents both challenges and opportunities for the aims of the Mayor’s Transport Strategy. On the one hand, the relative resilience of car trips – even in the context of lockdown restrictions – will be a concern, especially as lockdown restrictions recede, yet concerns over social distancing and modal preferences may well persist. On the other hand, the experience of local and active travel presents opportunities to capture and embed these changed travel behaviours beyond the pandemic.

Long-term changes to previously established patterns of travel demand may, however, also present wider challenges to London’s viability and structure – meaning that strong and proactive policies to influence these outcomes in a beneficial way are likely to be needed.

Active, efficient and sustainable mode share

Prior to the pandemic, there was steady, although relatively slow progress towards the Mayor's aim for 80 per cent active, efficient and sustainable mode share by 2041. The mode share for 2019/20 (before the pandemic) was about 63.2 per cent of trips by sustainable modes. The recent slowing in progress is believed primarily to reflect a slowing growth of London's population, and income inequality effects stemming from the 2008 financial crisis.

The pandemic has severely impacted many aspects of travel in London – most notably on public transport where the initial messaging was to avoid public transport.

However, it has been possible to derive indicative estimates of the impact of the pandemic on mode shares in London for each quarter of 2020. These are shown in the graph on the right and clearly reflect the different lockdown conditions and some seasonal factors. It is also important to recognise that these estimates relate to significantly lower levels of travel overall. Aspects such as trip lengths, timing, the purpose of journeys and origin/destination patterns will also have changed, so direct comparisons with pre-pandemic conditions are not always appropriate.

The provisional sustainable, active and efficient mode share estimate for 2020 is 57 per cent, which is six percentage points lower than the previous year. While there is a concern at a potential car-led recovery out of the pandemic, it is also important to note

in the graph on the right the substitution of public transport trips for active modes (mid-blue and light-blue bars). The graph also shows the increased proportion of travel by active modes, albeit in the context of reduced volumes of travel overall.

Impact on freight and servicing trips

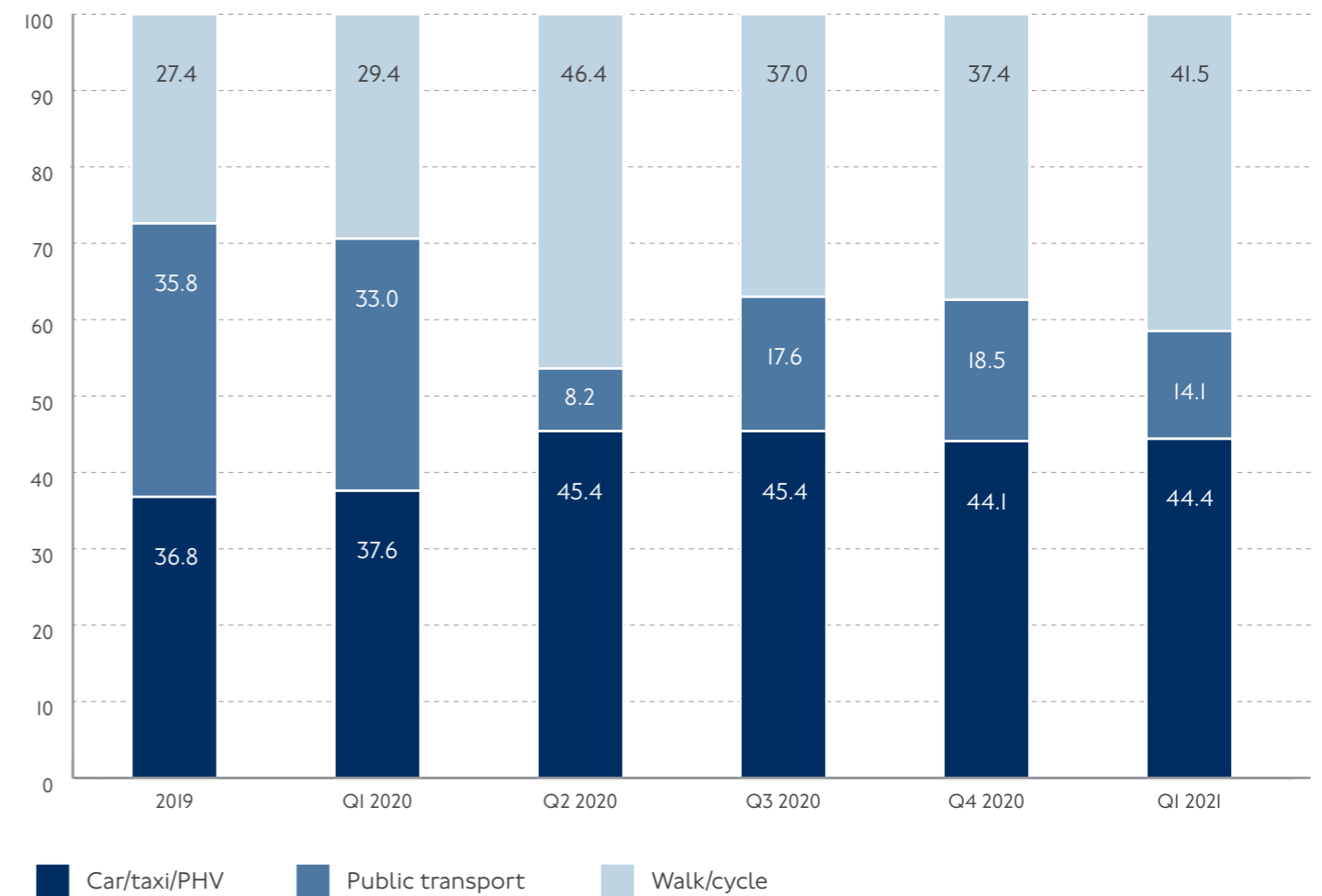
Freight and servicing remain crucial for the London economy, especially in terms of supporting essential activities and increased e-commerce. The pandemic has had differing impacts on the various drivers of freight demand.

The trend to more online shopping has accelerated, with home deliveries in January/February 2021 being around 25 to 30 per cent above year-on-year levels. The proportion of retail online, out of total retail, was 33 per cent in March 2021, up from 19 per cent before the pandemic. At its peak, it had reached 36 per cent both in November 2020 and January 2021, owing to shops being closed to comply with Government lockdown regulations.

Construction activity as of February 2021 was around five per cent below pre-pandemic levels year-on-year. Servicing and deliveries to offices and hospitality venues, particularly in central London, remains low as many office workers continue to work from home.

DfT traffic data shows that freight traffic declined at a lower rate than car traffic in 2020, with van traffic down by 12 per cent and HGV traffic at the same levels as 2019.

Estimated mode shares for all travel in London during 2020 (%)



2019: 27 million daily trips
 Q1 2020: 25 million daily trips
 Q2 2020: 16 million daily trips
 Q3 2020: 20 million daily trips
 Q4 2020: 20 million daily trips
 Q1 2021: 18 million daily trips

Delivery over the last year

This section sets out the impact the pandemic has had on our operations and what we, working closely with the DfT and the London boroughs, have delivered in response.



Healthy Streets and healthy people

Healthy Streets means creating streets that work for everyone and are accessible, safe and inclusive. Attractive street environments encourage active travel, and a well-planned street network ensures that space for buses is prioritised, with high-quality public transport connections providing appealing alternatives to car use.

Reducing Londoners' dependency on cars will be an essential component in realising all these benefits. Although pre-pandemic London made real progress in encouraging people to switch from using the car to active, efficient and sustainable alternatives, many more car journeys could still be made in other ways. As we recover from the pandemic, we must avoid a car-based recovery.

Active people

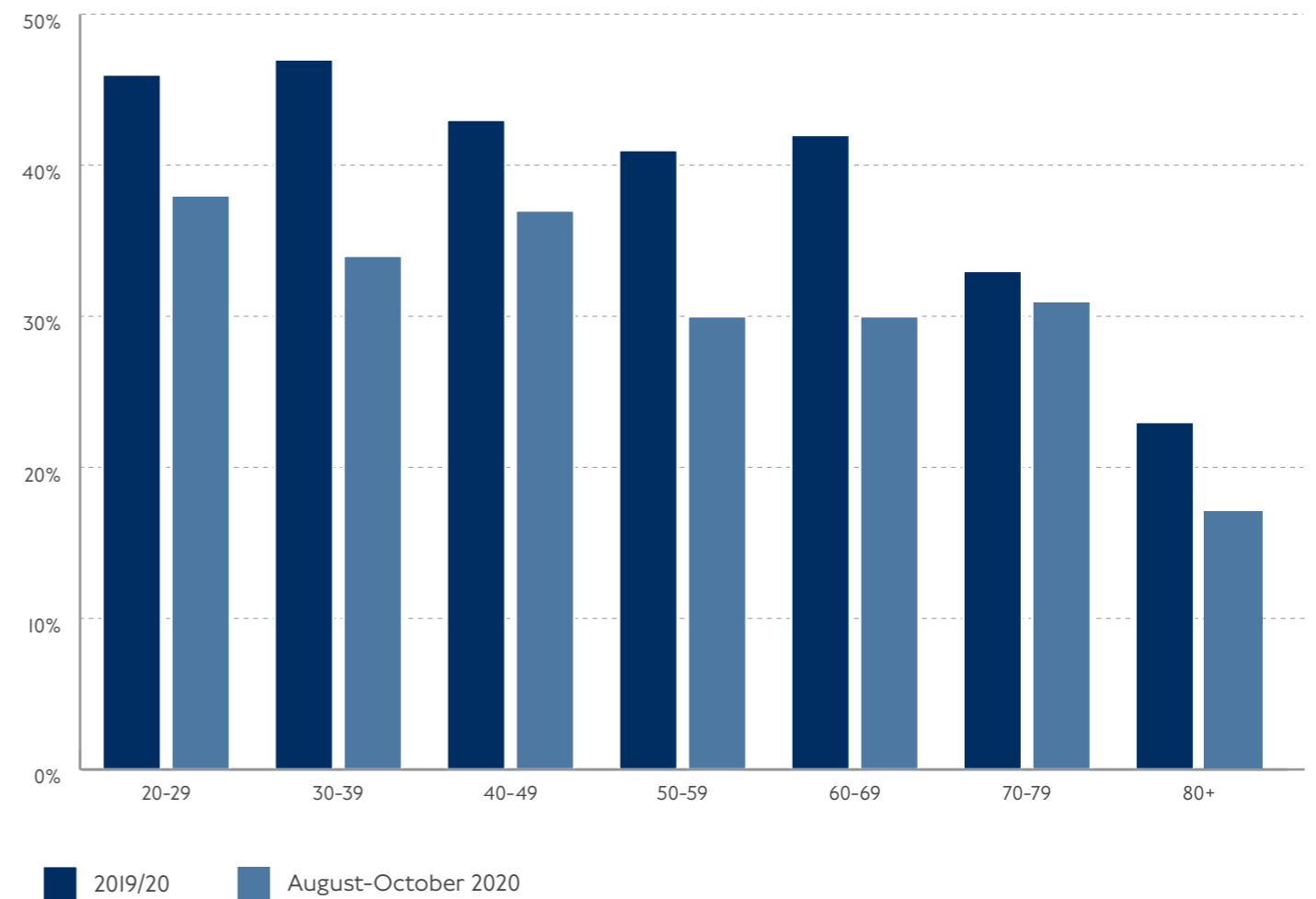
The Mayor's Transport Strategy sets an active people aim for 70 per cent of Londoners to achieve at least 20 minutes of walking or cycling each day by 2041.

In 2019/20, 42 per cent of Londoners achieved 20 minutes of active travel, an increase of 3.4 percentage points on 2018/19.

Although lockdown restrictions gave Londoners greater opportunity to partake in active travel more locally, in practice this was countered by general restrictions on mobility. In particular, there was a loss of active travel as part of work-related trips (such as the walk to the station for commuting) by those working from home, such that the available data suggest an overall reduction in the achievement of 20 minutes active travel across the population as a whole.

Despite the pandemic, and in the context of weekday cycling in central London having declined by around 25 per cent, weekday cycling in inner and outer London increased in autumn 2020 by a nominal seven and 22 per cent compared to 2019 (spring figures). This reflects the strong relative performance of cycling as a flexible mode increasingly being used for personal business and leisure trips, offsetting a fall in commuter cycling, which was brought about by the pandemic.

Percentage of London residents completing 20 minutes of active travel by age



Streetspace for London Programme

The Streetspace for London Programme was designed to enable and encourage safe and active travel during the pandemic, but also presents opportunities to 'capture' these changed behaviours as part of London's sustainable recovery.

In May 2020, the DfT issued statutory guidance giving practical advice on how

to maintain social distancing on public road space and ensure the continued movement of traffic during the ongoing pandemic.

Thereafter, we issued the Interim Streetspace Guidance that recognised that as 'lockdown lifts, demand for travel will increase'. Like the May 2020 DfT guidance, it noted the important role that active travel was anticipated to play in alleviating

the resulting pressure on London's roads, where London's public transport network, in particular its bus network, was operating at reduced capacity.

Given the scale and pace of delivery required, the annual borough Local Implementation Plan (LIP) programmes were not appropriate for this task. We therefore took rapid action to suspend LIP

funding and develop the Streetspace for London Programme. The graphic below highlights the significant level of delivery over the last year.

Streetspace for London Programme

97km

of completed cycle lanes



89

low traffic neighbourhoods



22,500 sq m

of extra pavement created on the TLRN



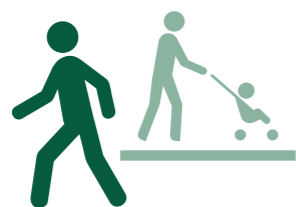
84km

of bus lanes switching to 24/7 operation



181

schemes creating additional pedestrian space in town centres and borough roads



19km

of cycle lanes in construction



336

school streets



Much of this new infrastructure, including all of the Low Traffic Neighbourhoods and School Streets, and 65km of cycle routes, were delivered by London boroughs, which have been at the forefront of London's recovery from the pandemic.

The delivery of new and upgraded cycle infrastructure is particularly noteworthy. Of the 270km of safer, high-quality cycle routes delivered since 2016, 100km were delivered in the 2020/21 financial year alone, with other routes under construction. In 2019, 12 per cent of Londoners lived within 400 metres of the cycle network, by October 2020 this figure had increased to 18 per cent, reflecting the unprecedented scale of delivery.



Footways have been widened at London Bridge



Park Lane now has a temporary cycle lane



Closed roads in Soho to create 'streeteateries'

Vision Zero for road danger

The aim of Vision Zero is the elimination of all deaths and serious injuries on London's transport system by 2041.

By the end of 2019, there had been a 39 per cent decline in absolute terms in the total number of people killed or seriously injured on London's roads against the 2005-09 baseline. However, progress has slowed in recent years, reflecting the trend also experienced by other European cities.

In 2020, 96 people were tragically killed in London, compared to 125 in 2019. There were also changes to casualty risk resulting from factors such as the changed mix of traffic on streets and elements of behaviour. This meant that collisions, when they did occur, were more likely to result in serious injury, and highlights that it is not enough to reduce the volume of traffic on the roads, but that infrastructure, enforcement and road safety culture must also support safety on emptier roads.

Analysis of the number of people killed or seriously injured per million journey stages against the baseline indicates we have made significant progress in several areas of road safety, particularly on roads where we have direct control.

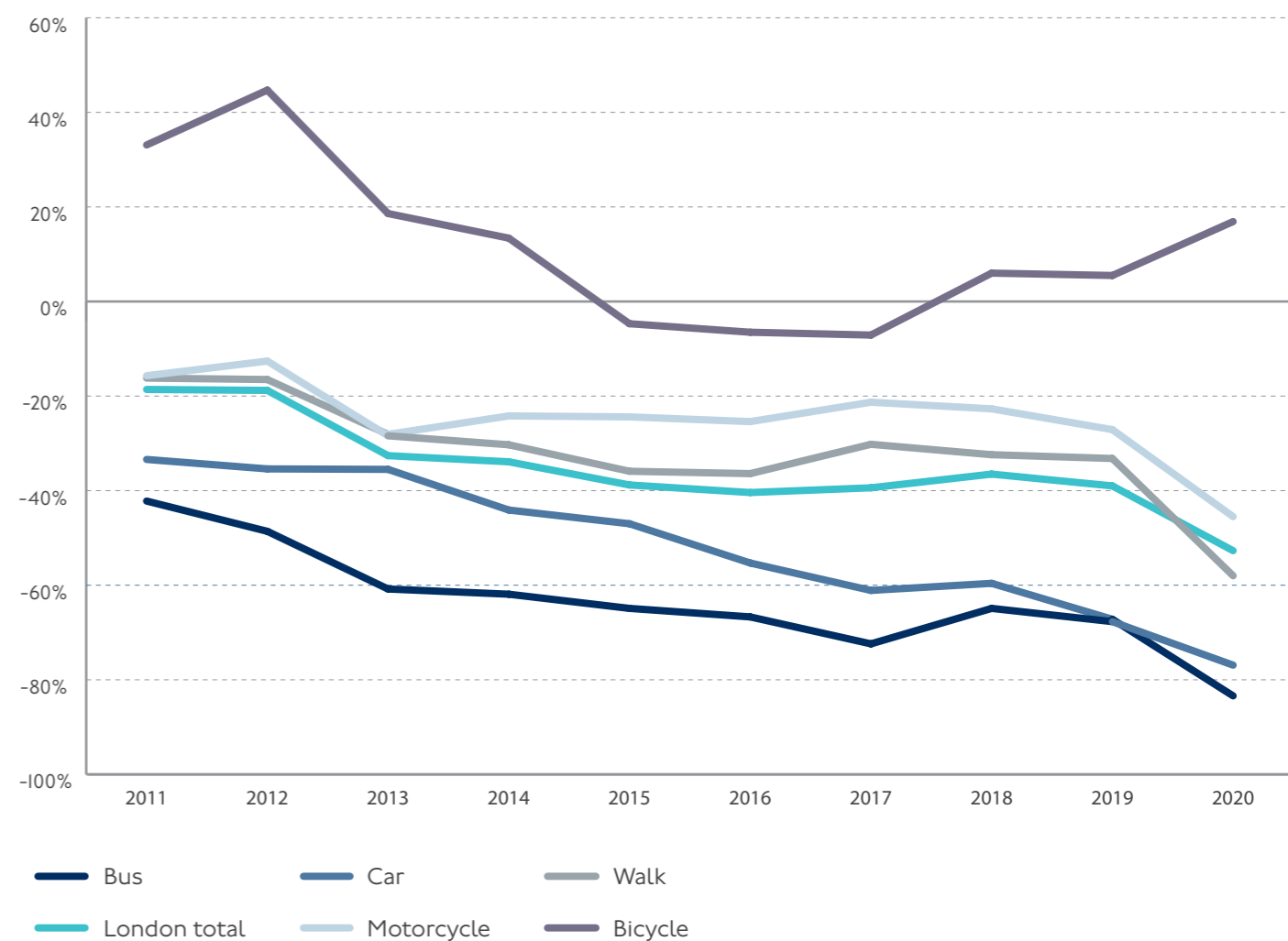
Buses are the public transport mode carrying the most people and are also the safest way to travel on the roads. Our world-leading Bus Safety Programme is delivering towards a goal of a 70 per cent reduction in deaths and serious injuries on or by a bus by 2022.

In 2020, although cycling serious injuries rose in absolute terms, this largely reflects the increase in cycling in London since the 2005-09 baseline. Looking at the rate basis, the number of deaths and serious injuries per million cycle journeys has actually fallen by 35 per cent.

However, we have not yet made enough progress in reducing deaths and serious injuries among people walking, cycling and riding motorcycles. These groups represent 80 per cent of people killed or seriously injured on London's roads. These figures are provisional and subject to change.

Over the last year, working with the boroughs, we delivered a range of schemes to support Vision Zero.

People killed or seriously injured by mode of travel against 2005-09 baseline



Safe speeds

We continued with our programme to lower speed limits on our roads. Feasibility design and early survey work is underway on Phase 2 of the Lowering Speed Limits Programme, to lower the speed limit by 10mph on more than 140km of the Transport for London Road Network (TLRN) by May 2025. In 2020/21, we introduced more 20mph speed limits on 15km of the TLRN including on the:

- A4202 Park Lane
- A400 Hampstead Road
- A501 Euston Road
- A102 Homerton High Street
- Peckham Town Centre
- A3212 Grosvenor Road
- A3205 York Road – Battersea Park Road
- A21 Lewisham High Street – Molesworth Street, Lewisham

This brings the total length of the TLRN subject to a 20mph speed limit to 72.9km.

Safe streets

We are working on more than 100 vital projects delivering measures to address historical collisions and reduce road danger on the TLRN. These include new and upgraded crossing points, improved pedestrian and cycle facilities, speed limit reductions and innovative pedestrian crossing technology. In 2020/21 we:

- Completed construction at six Safer Junctions including Camberwell Green, Edgware Road/Harrow Road, Edgware Road/George Street, East India Dock Road/Canton Street, Britannia Junction, Dalston Junction, and Clapham Road/Union Street. This brings the total number of completed junction schemes to 41 and meets the target set in the Vision Zero Action Plan
- Delivered cycle safety improvements on A23 Brixton Hill between New Road and Jebb Avenue, and delivered pedestrian improvements on A10 Stoke Newington Road between Shacklewell Road and Amhurst Road
- Installed measures to improve the safety of pedestrians on the A12 slip roads and at the A2 Amersham Road/Parkfield Road following pedestrian fatalities
- Completed improvements on A302 Grosvenor Place to eliminate the risk of right-turn collisions

- Started design work to install a new signal-controlled crossing point over Battersea Bridge at the junction with Grosvenor Road, after a tragic fatality involving a pedestrian. Phase I of the project, delivering a new crossing over the bridge and introducing a 20mph speed limit, is expected to be delivered by the autumn

This accounts for 29 new and upgraded crossing points, 22 conflict points eliminated, widened footways at six junctions and three junctions with new dedicated cycle signals.

Safe freight vehicles

The innovative Direct Vision Standard (DVS) and HGV Safety Permit Scheme came into effect on 26 October 2020, with enforcement of the DVS standard delayed until 1 March 2021 to give operators more time to meet DVS requirements with all the disruption caused by the pandemic. It has been developed to address the disproportionate number of fatal collisions in London involving HGVs and people walking and cycling.

The scheme requires all lorries of more than 12 tonnes (GVW) entering or operating in Greater London to hold a valid HGV safety permit. Thus far, more than 124,000 permits have been issued and this alone will significantly help to improve the safety of HGVs using London's roads. Vehicles with a zero-star rating are required to have a safe system fitted in order to have a permit granted. The safe system equipment improves indirect vision and helps drivers see near the vehicle, warns road users of intended manoeuvres, and helps to minimise the physical impact of a hazard.

Safe behaviours

Our partners in the Metropolitan Police Service (MPS) and City of London Police continue to take a Vision Zero approach to policing the roads, with a more intense focus on the riskiest locations and most dangerous drivers. During 2020, when national lockdown restrictions were in place, London, like many other cities, saw an increase in speeding as drivers took advantage of lower levels of traffic on the roads.

During the year, the MPS dealt with almost 30,400 speeding drivers who were detected through roadside enforcement activity, an increase of more than 150 per cent on 2019. An additional 240,000 offences were dealt with through safety cameras.

This is part of a joint TfL/MPS action plan to increase levels of roadside and safety camera enforcement activity. The number of tickets issued for speeding on street by the police has remained consistent this year and we are still seeing excessive speeds of more than 100mph every week.

In addition to speed enforcement, significant activity was undertaken by the MPS to deal with other criminal and reckless driving that puts road users at risk.

Safe buses and trams

There are now more than 450 Bus Safety Standard (BSS) buses in our fleet. The BSS standard continues to evolve, and BSS 2021 requirements have now been written into route contracts, meaning the first buses to meet this standard are expected to be on-street in 2021. In addition, we also have around 1,400 buses fitted with Intelligent Speed Assist (ISA), both as part of BSS and in existing fleet (Volvo buses). We will shortly begin retrofitting ISA to approximately 3,000 vehicles, where a retrofit for the model exists and if the vehicle still has a lifespan in London of more than five years. Our Bus Safety Programme will continue to drive major safety improvements, helping us reach our target of no one being killed on or by a bus by 2030. We are currently on track to reduce the number of people who are killed or seriously injured on or by London buses by 70 per cent by 2022.

Efficient use of street space

The Mayor's Transport Strategy aims to prioritise space-efficient modes of travel to tackle congestion and make the movement of people and goods more efficient, aiming to reduce overall traffic levels.

Over the last year, working with the boroughs, we have implemented changes to the management and allocation of street space to reduce the risk of a car-led recovery and support the aims of the Mayor's Transport Strategy. While some measures are temporary, we will use the learning from these to inform future delivery. These include:

- Temporary Congestion Charge changes, which came into effect on the 22 June 2020. These changes temporarily widen the scope and level of the Congestion Charge, in response to the transport challenges of the pandemic and in accordance with the condition in our funding agreement with the Government. They seek to ensure the Capital's recovery from the pandemic is not restricted by the use of cars
- Delivering 181 schemes to enable social distancing on borough roads in town centres
- Reallocating 22,500 square metres of TRLN to people walking
- Nearly 100km of cycle routes completed by both the boroughs and TfL



Cycleway 4 in Greenwich

In 2020/21 the Bus Priority Programme converted 84km of bus lanes on the TLRN to operate at all times, which means that all bus lanes on the TLRN in London can operate 24/7, and boroughs are following suit. We are now monitoring to see whether they can be made permanent.

The reduced traffic volumes associated with the pandemic resulted in improved average bus speeds throughout the year. During the initial coronavirus lockdown, average bus speeds peaked at 11.76mph, but began to fall back as traffic levels increased. On a

number of routes, the improved speeds and reduction in bus journey times have enabled the same service frequency to be operated with fewer vehicles. This saved TfL more than 100 peak time buses, which could be redeployed elsewhere on the network. Sustaining these improved bus journey times in the long term and replicating them in other parts of London, would help to reduce operational costs, and help us to retain existing customers and attract new customers, improving the financial sustainability of the bus network.



Focus on: Bus journey times

Reliable bus journey times are a key driver of the attractiveness of bus travel in London. The chart on the right shows that between 2014 and 2019 average bus speeds reduced by four per cent. However, during the pandemic, in particular during the two lockdown periods, bus speeds in central London improved by about 50 per cent. During this time, central London traffic was down 50 to 60 per cent.

While other factors, such as fewer passengers boarding and alighting, would also have contributed to the improved bus speeds (while still compliant with traffic speed restrictions), this chart illustrates the role that reducing traffic volumes has on improving the attractiveness of bus travel in London.

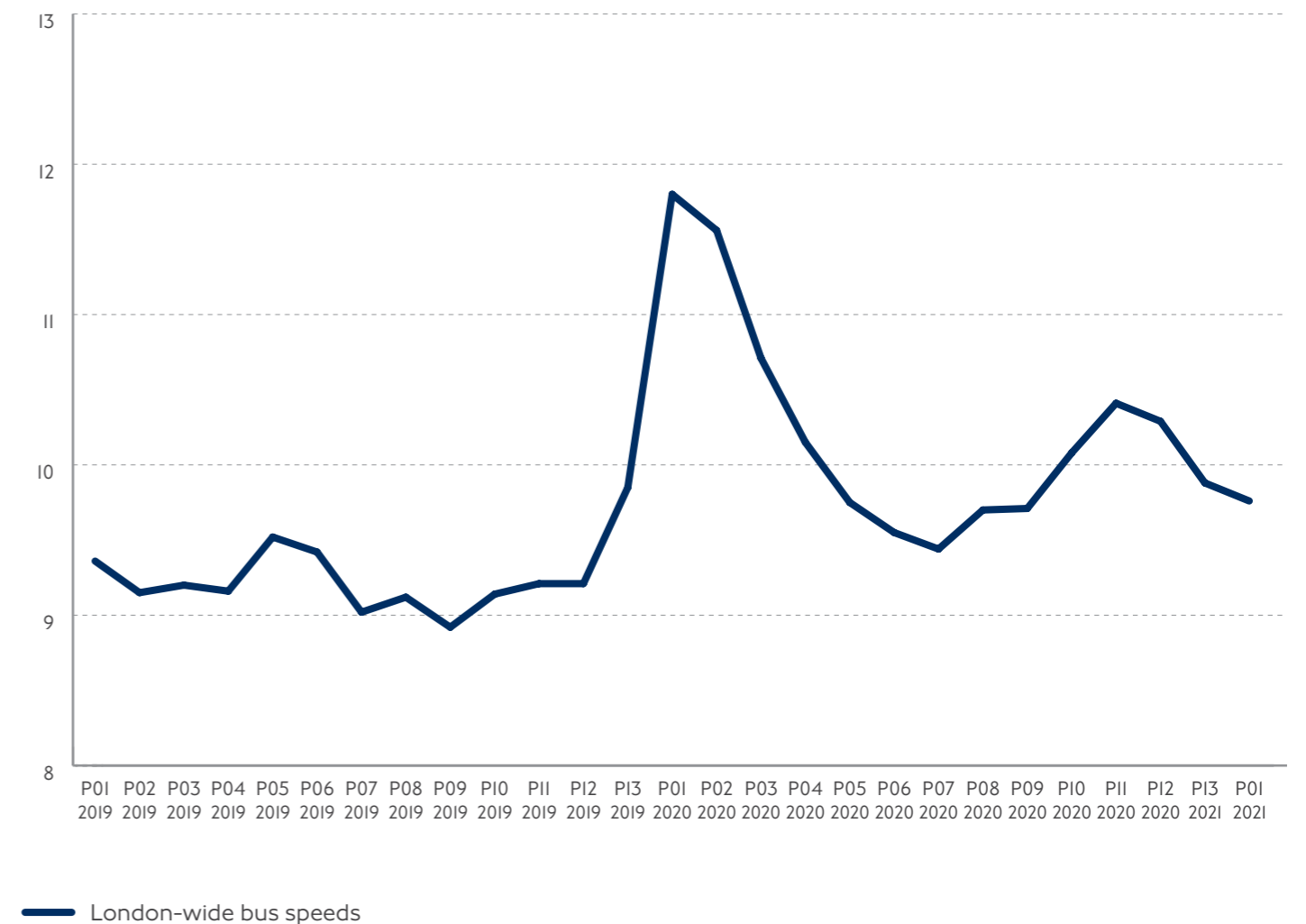
Improving safe bus speeds also helps TfL provide even greater service for our customers from our limited resources.

For example, improving bus speeds for a given level of service in inner London would release resources that could be used making bus travel more attractive in outer London.

Only 44 per cent of streets that are strategic for bus travel have enough space for bus lanes in both directions. Traffic reduction is therefore the only way to ensure reliable bus speeds on these sections of the bus network.

With 70 per cent of the strategic bus network running on borough roads, this recent experience also highlights the importance of TfL's work with the boroughs. A range of borough traffic reduction measures are set out in the Mayor's Transport Strategy and they will be critical, alongside greater provision of bus lanes and bus priority signalling, to improve bus speeds and make bus travel more appealing across London.

Bus speeds from 2019 to 2021 (mph)



London's streets will be clean and green

Activities relating to this policy outcome are being delivered in conjunction with those in the LES.

Improving air quality

The Mayor's Transport Strategy and the LES aim to clean London's air and decrease emissions from vehicles by encouraging active travel while switching the remaining vehicles from petrol and diesel to zero emission at the tail pipe, such as electric-powered vehicles.

Significant improvements have been achieved in air quality over the last five years, particularly in reducing ambient levels of NO₂ towards statutory limits. However, there is still work to be done. Compliance with legal limits for NO₂ is within sight. However, 99 per cent of Londoners live in areas exceeding the World Health Organisation's recommended target for PM_{2.5}.

Improvements delivered over the last five years have meant that:

- In London in 2016, two million Londoners, including 400,000 children, lived in areas that exceeded legal limits for air pollution. In 2019, this had reduced to 119,000 people, 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
- In 2016, monitoring sites across London recorded more than 4,000 hours above the short-term legal limit for NO₂. In 2019 this reduced to slightly more than 100 hours, a reduction of 97 per cent

A key project to improve London's air is the central London Ultra Low Emission Zone (ULEZ), which came into operation on the 8 April 2019. Enforcement of tighter emissions standards for the Low Emission Zone (LEZ), covering most of Greater London, was introduced from 1 March 2021. Enforcement was delayed from October 2020 to give operators more time to meet the requirements in light of the pandemic.

Preparations continue for the October 2021 expansion of ULEZ up to the North and South Circular roads. Existing projects and programmes will complement delivery of the expansion by making it easier for drivers to switch modes.

Compliance for the current ULEZ, LEZ, and the expanded ULEZ scheme, are tracked on a regular basis and the table below compares compliance in March 2021 with the compliance when the schemes were announced in February 2017. Compliance for the ULEZ has more than doubled in just four years.

Compliance levels in February 2017 and March 2021

	Feb 2017	Mar 2021
Central ULEZ	39%	87%
Expanded ULEZ	39%	80%
LEZ	48%	94%

To support compliance with these schemes, we launched three GLA-funded scrappage schemes, targeted at those who need it most. The schemes are available to small businesses, charities and Londoners who are disabled or on low incomes, and help them scrap older, more polluting vehicles. The schemes have been hugely popular, supporting the scrapping of more than 9,300 polluting vehicles, and with more than £43m of grant payments issued to date.

Taxis and private hire are also shifting to cleaner vehicles and helping to address London's air pollution. From 1 January 2018, all newly licensed taxis had to be Zero Emission Capable (ZEC), which has resulted in higher numbers of ZEC taxis in the fleet, further supported by an enhanced taxi delicensing scheme and ZEC taxi grants. At end of March 2021, 4,036 ZEC taxis had been licensed in London.

By January 2021, London had all 9,000 of its core bus fleet meeting or exceeding the cleanest Euro VI emissions standards. Around £85m has been invested in retrofitting older diesel buses to meet these standards.

Now completed, this bus improvement programme has seen harmful NO_x emissions from buses fall by an average of 90 per cent. London also now has more than 500 electric buses, the most of any city in Western Europe.

To further address areas which are expected to continue to exceed air quality limits, despite ULEZ and its forthcoming expansion, we are encouraging local Zero Emission Zones (ZEZs). To support this, in September 2019, we published guidance on ZEZs for boroughs. In light of the new context resulting from the coronavirus pandemic, we are currently in the process of updating the ZEZ guidance to reflect the work of the GLA's London Recovery Programme and the role that ZEZs will play in delivering the Green New Deal Mission, one of nine missions forming the recovery programme. The revised guidance will be published in the summer of 2021.

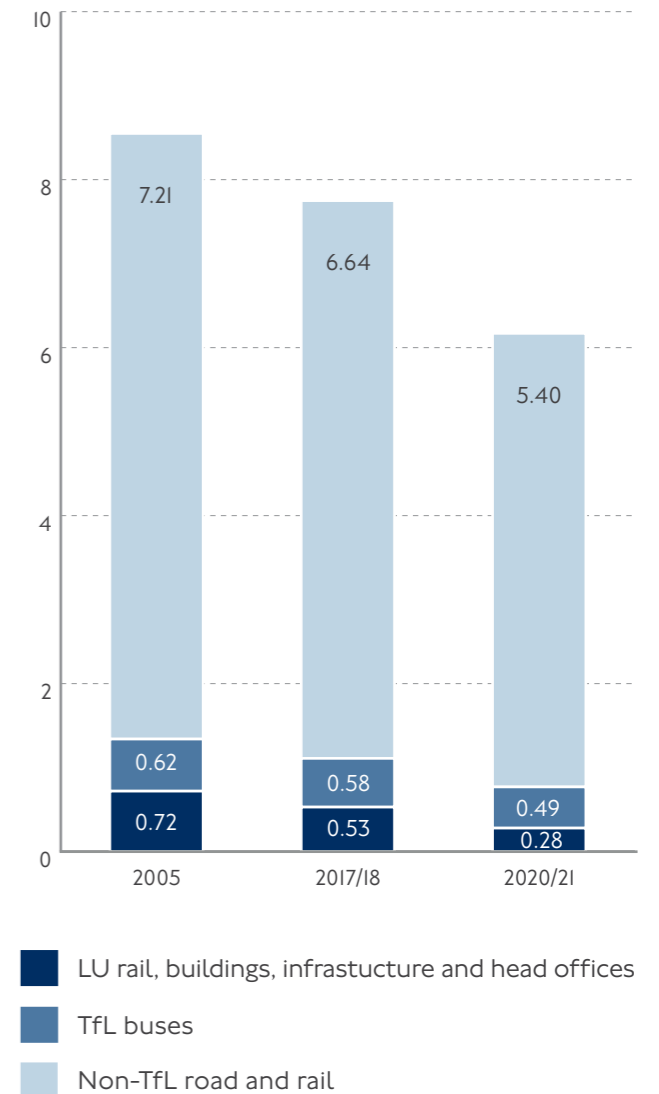


More cycling will help London to become a zero-carbon city

Zero-carbon city

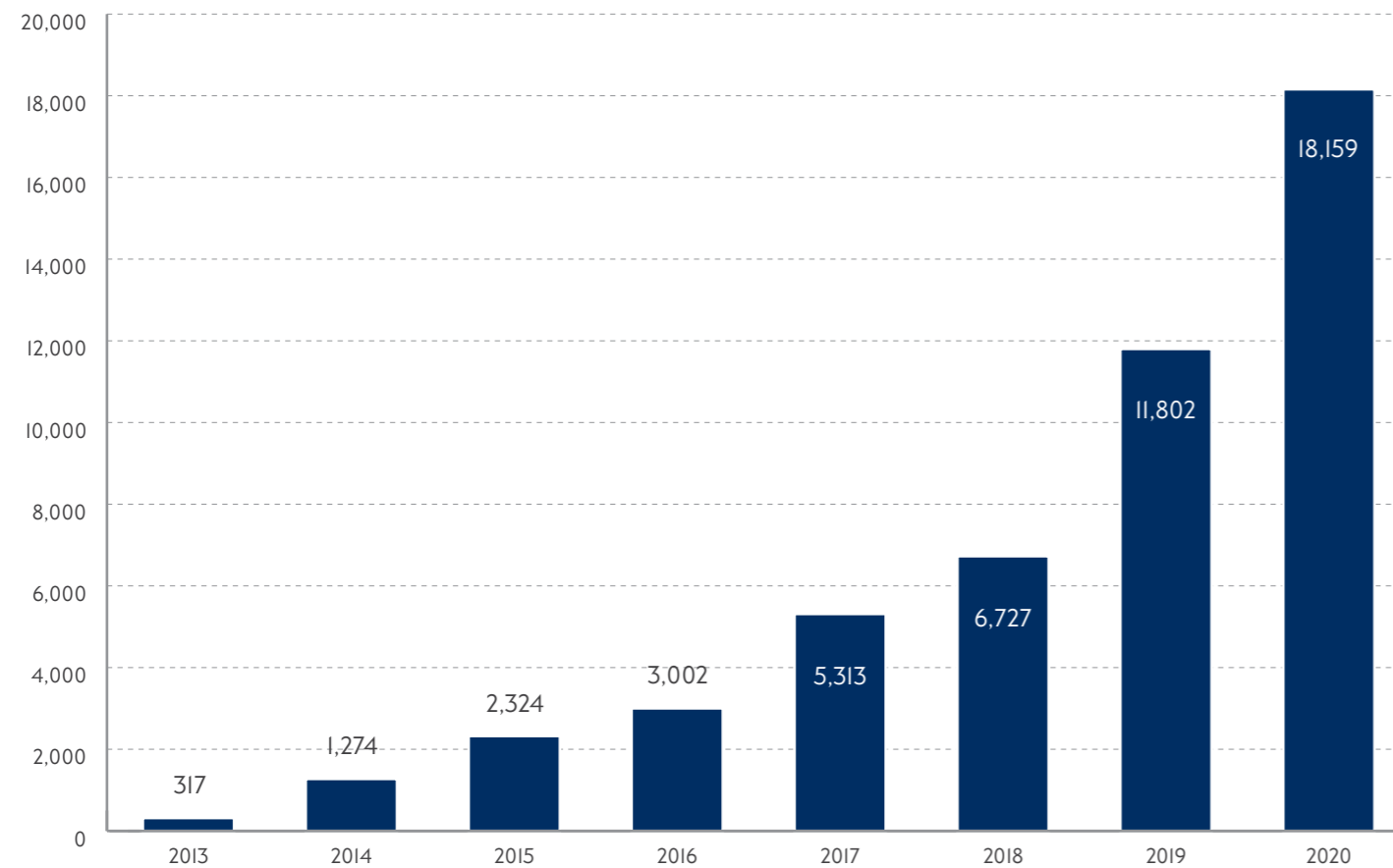
The Mayor's Transport Strategy and LES set a target for London to be a zero-carbon city by 2050. Zero carbon means activity that causes no net release of carbon dioxide and other greenhouse gas emissions into the atmosphere, for example, by using renewable energy. It will only be possible to meet this target if all road vehicles produce zero emissions by that date, and emissions from other forms of transport, including rail, river, infrastructure and energy are reduced to zero. The Mayor's Transport Strategy evidence base identified that implementation of the strategy would put London's roads and rail transport on a clear trajectory to reach zero-carbon status by 2050.

Graph to show CO₂ emissions from transport in London (million tonnes)



This graph shows the reduction in CO₂ emissions across different transport sources in London. There has been a reduction of more than 1.5 million tonnes of CO₂ since 2017/18.

Plug-in vehicles registered for the first time in London (DfT statistics)



Number of charging devices by type across London (data provided by Zap Map, April 2021)

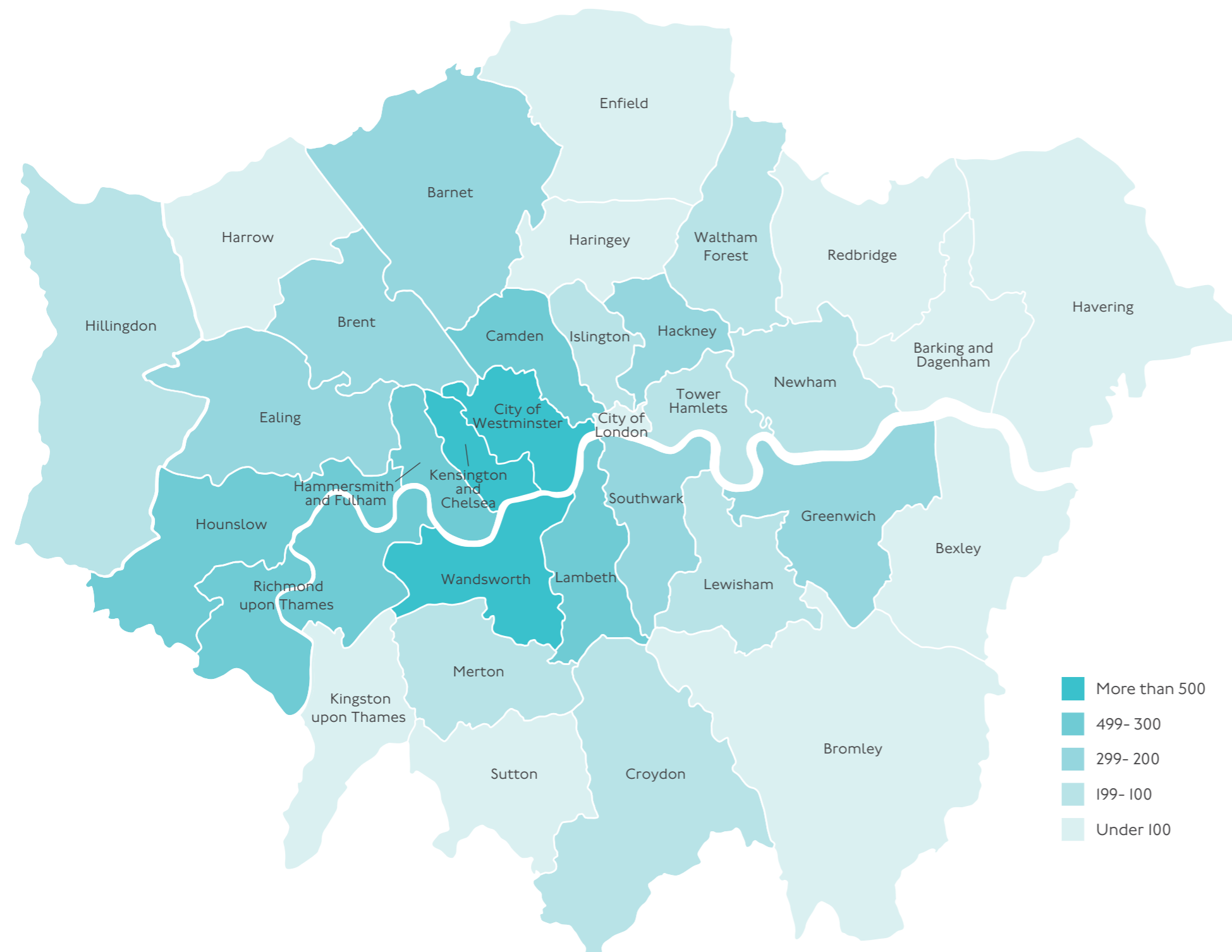
Device type	March 2020	Mar 2021
Slow	3,590	5,352
Fast	2,399	2,780
Rapid	435	605
Total	5,078	7,258

More than 43,000 ultra-low emission vehicles (ULEVs) were registered within London by Q3 2020. This is a 218 per cent increase in total ULEVs registered in London from 2017 and reflects growing consumer confidence, greater vehicle choice and improving technology.

First-time registered ULEVs in London increased by 177 per cent between 2016 and September 2020 – from 3,002 in 2016, to 8,316 by Q3 2020. Data for the whole of 2020 is not yet available for analysis. However, the graph on the left highlights the steady increase in first-time registrations of plug-in vehicles up to 2019 and includes percentage of total first-time registered vehicles.

We appear to be at a tipping point with new electric vehicles. In 2020, there were more electric vehicles sold in the UK than the previous 10 years combined. A key aspect of the transition to zero carbon is to ensure there is enough charging infrastructure for private vehicles, particularly as the number of electric vehicles in the Capital and the UK increases. The table above shows the increase in the number of electric chargers across London and the map on the next page shows the spread of electric chargers across London boroughs.

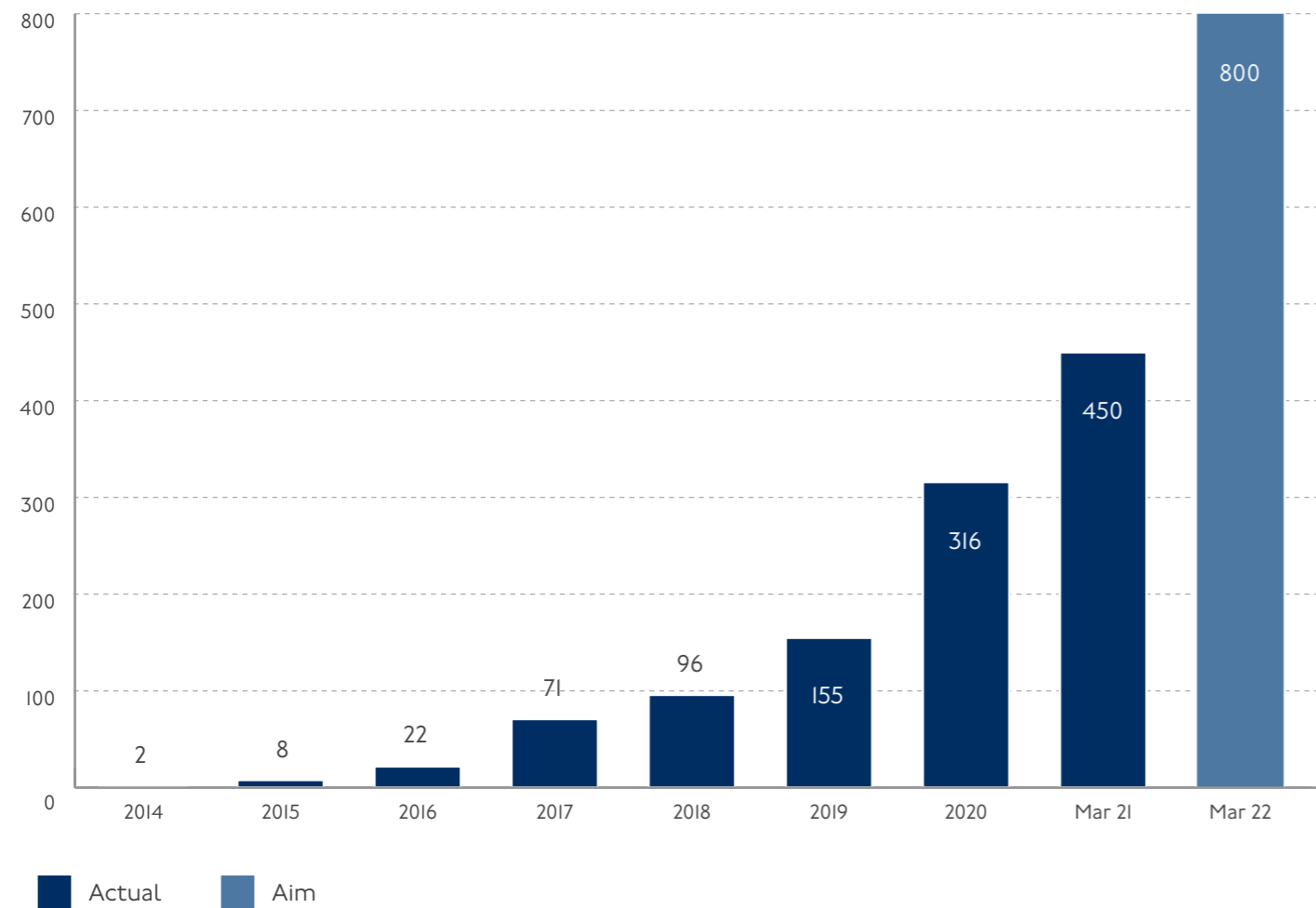
Number of charging devices by London borough
 (Data provided by Zap Map, April 2021)



An electric rapid charger on street

We achieved our original target of installing 300 rapid charge points by 31 December 2020 and now have a total of 310 units in operation. This figure has more than doubled since December 2018, when we had 150 rapid charge points in operation.

Current and projected numbers of zero-emission buses in TfL's fleet



The graph above shows current and projected numbers of zero-emission buses. The Mayor's Transport Strategy aims for all buses in London to be zero emission by 2037. At the end of March 2021, there were 485 electric buses compared with 316 at the end of March 2020. Progress is subject to an appropriate funding settlement. It is estimated there will be 800 zero-emission buses at the end of March 2022, including 20 hydrogen buses.

We are planning for our rail services to be zero carbon by 2030, through energy efficiency, on-site generation and procurement of renewable

energy. We have mapped the potential for solar generation on our rooftops and carried out assessments of high potential land holdings for solar generation.

We have conducted market engagement to understand potential opportunities for connecting our assets to local sources of low-carbon electricity. With the GLA we are exploring opportunities for procurement of low-carbon energy through Power Purchase Agreements (PPAs) and aim to launch tenders for up to 20 per cent of our energy use through a renewable energy PPA in 2021.



There are now 485 electric buses in London



The strategy aims to increase biodiversity

Green infrastructure and biodiversity

The Mayor's Transport Strategy and the LES aim to deliver a net gain in biodiversity as part of transport schemes. Biodiversity net gain is being embedded into our project development and management processes.

As of March 2020, there were 24,111 trees on the TLRN and we were on track to meet the Mayor's Transport Strategy target of a one per cent year-on-year increase in street tree numbers to 2025. However, the suspension of non-safety critical work during the most recent lockdown coincided with the tree-planting season (December to March) and so a significant proportion of the planned 2020/21 tree planting will need to be undertaken in April to May 2021/22. The sites for these new trees have already been identified and it is anticipated that we will be back on track to meet the Mayor's Transport Strategy commitment by the end of the first quarter of 2021/22.

We are working to incorporate Sustainable Drainage Systems (SuDS) into the delivery of improvement works on the TLRN, including schemes at Old Street and Edgware Road,

as well as encouraging boroughs to deliver them via LIPs. In support of this we, in collaboration with the GLA, have provided training on how to implement SuDS in the highway. The training has already been attended by more than 470 people with further sessions planned.

From April 2021, we will have a new approach to maintaining the TLRN, via new Works for London highway contracts. During the transition period from our previous contract, we will liaise with our new contractors to determine which TLRN road verges will be taken forward as wildflower verge trial sites, expanding on our 2019/20 pilot. The aim will be to strike a balance between increased biodiversity and a well-presented network, allowing communities to have pride in their local areas. We also hosted a wildflower verges conference for the boroughs in March 2021, which helped share best practice and raised expectations for wildflower road verge management across London.

Climate change adaptation and resilience

Climate change is a strategic risk for TfL, with major hazards related to extreme weather events including overheating, flooding, water shortages and storms. Impacts include service delays and cancellations owing to infrastructure damage, and safety implications for customers using our services in hot or wet weather. High temperatures can damage signal systems and impact customers on trains, while heavy rainfall after drought can destabilise embankments.

We established, and continue to chair, the quarterly Transport Adaptation Steering Group, which brings together stakeholders (such as Network Rail and Highways England) and experts (such as the London Climate Change Partnership) to understand how we can proactively address the issue of climate change adaptation in the transport sector.

In addition, we set up a research programme with a range of academic institutions to baseline how current severe weather events affect our operations (primarily LU and TLRN networks). Going forward, we will be better prepared and able to recover quickly from the likely impacts of future climate change.



London Underground



Please remember social distancing

We are still here to

For your safety and the safety
of our staff, please remember
the current government
guidelines on social distancing.

When speaking with our staff
please keep two metres space
between you and the staff
member.

Thank you.

MAYOR OF LONDON



A good public transport experience for all

London has one of the most extensive and high-quality public transport networks in the world.

By providing the most efficient and affordable option for journeys that are either impractical or too long to walk or cycle, public transport has helped to reduce Londoners' dependency on cars.

The pandemic has changed people's expectations of a good public transport experience. Cleaning the network, information on quieter times to travel, and maintaining high frequencies to support social distancing, are now more important to customers than in previous years.

Public transport capacity and connectivity

The Mayor's Transport Strategy established that more capacity in London's public transport system – in particular, an increase of at least 80 per cent in rail-based modes by 2041 – would be needed in order to tackle pre-pandemic crowding and to meet growing demand.

Pre-pandemic crowding remained a significant issue on the network. As a result of the lockdowns and advice not to travel, 2020 was an exceptional year in the provision of public transport services. Key

operational metrics for public transport were impacted by the emergence of the coronavirus pandemic – affecting the very end of the 2019/20 financial year. Established metrics were not relevant in 2020, as public transport services were optimised to support key workers and the requirement for social distancing.

The table below shows normal capacity across the modes compared to capacity with two-metre social distancing and one-metre social distancing.

Changes in capacity based on social distancing

Average	Normal capacity		2m Social distancing		1m Social distancing	
	Cars per train	Total capacity	Total capacity	% of normal capacity	Total capacity	% of normal capacity
Mode						
LU	7	816	93	11%	208	26%
LO	5	634	69	11%	156	25%
DLR	3	590	61	10%	118	20%
Trams	1	207	19	9%	40	19%
TfL Rail	8	1562	140	9%	288	18%



More than 230 extra buses were designated as School Services



Dettol hand sanitiser units were installed across the network

Underground

On the Underground, we operated as near to a full service as possible to help people who needed to travel, and managed services until driver numbers improved sufficiently. The full timetables were restored on a line-by-line basis and, since July 2020, TfL has been running near-normal levels of service across the public transport network.

Maintaining train driver numbers has been a challenge owing to coronavirus effects, so while the full timetables were scheduled, actual service levels were slightly lower. To support this, Night Tube was suspended from the outset of the pandemic and remains so, with many Night Tube drivers being seconded into 'Day Tube' roles or doing weekday overtime.

The Circle Line was suspended by 21 March 2020 owing to lack of train operators. It was reinstated from 17 May 2020, but with a reduced timetable. The Waterloo & City line was also suspended as it shares a pool of drivers with the Central line and without enough drivers to operate both lines, the Central line has been a higher priority. The Waterloo & City line will reopen in June when we expect an increase in demand for travel to the City.

Owing to staffing restrictions, 38 stations were also closed across the network from 21 March 2020. The stations were gradually safely reopened between May and September 2020. Heathrow Terminal 4 station was closed in April at the request of BAA owing to low demand. The station remains closed at its request.

Rail and DLR

Service enhancements were paused on rail modes because of the coronavirus, with the focus of the last year on returning to pre-pandemic levels of services after the lockdown.

On the DLR, we have consolidated services into longer but fewer trains to improve resilience of driver absence. This also helps to optimise social distancing.

Bus

During the first lockdown in 2020, bus demand fell to around 20 per cent of normal levels and supply far outweighed demand. Our response balanced the need to ensure that Londoners who needed to travel could continue to do so safely, with social distancing and sustainability, with the significant financial constraints arising from a collapse in fare-paying demand.

However, bus demand has been far more resilient than demand for other public transport modes and increased to around 60 per cent of pre-pandemic levels by March 2021. This highlights its vital role during lockdown for low-income Londoners, including key workers in social care and food supply. They are less likely to own alternative means of transport such as a car, and often work shifts or unsociable hours which only the 24/7 bus service can support. Even though the most deprived areas in London already had the greatest proportion of bus boardings before the initial lockdown period, their share of bus boarding increased during lockdown, as lower income groups, often in so-called blue collar jobs, were less likely to be able to work from home. Buses also supported the return to schools.

Changes were made to the bus network as schools returned for the autumn term. This was to make it easier for children, young people and teachers to travel safely on public transport.

The changes also helped to accommodate the journeys of the growing number of people returning to workplaces across London as the national pandemic restrictions gradually eased.

Before the pandemic, around 250,000 school children used London's buses daily to get to and from school. To support their safe return, we asked schools and parents to encourage walking, cycling or scooting to travel to school where possible, with an extensive communications campaign launched to encourage people to do so.

Government guidance allowed for the relaxation of social distancing requirements on dedicated School Services. In response to this, we designated some existing regular buses as School Services on high frequency routes, which were prioritised for school travel and could operate at full-seated capacity consistent with Government guidelines. More than 230 extra buses were added as School Services to bolster some of the busiest lower frequency routes that are highly used by schoolchildren, including adding more vehicles to its existing school bus services.

This meant that the bus network could carry more children to school while still freeing space on non-school buses for other customers. This is particularly important, as capacity limits remain in place on regular services and more and more people start to return to their workplaces as restrictions are eased.

We continuously review the bus network to ensure it responds to customer needs. In the short to medium term, travel is likely to be reduced in central London and our main focus is to improve services in outer London, where there is a greater need. Owing to the pandemic there were fewer network changes, but new route 456 was introduced in north London in March 2021.

We have carried out 228 bus-focused signal timing reviews and implemented new traffic signal infrastructure at 27 locations to reduce bus delays.

Dial-a-Ride

Dial-a-Ride services are predominantly used by older groups of disabled Londoners. As such, the service had particular safety and wellbeing issues to contend with during the last year.

A strict cleaning regime was introduced early on in the pandemic, in parallel to that deployed on the rest of the TfL network. Demand was reduced to between 10 and 20 per cent of normal demand, which allowed members to make essential trips while vehicle occupancy was restricted to one member or one household bubble only.

At the same time, Dial-a-Ride worked with local community transport operators and taxi drivers to help local authorities, the NHS and local community groups deliver vital food and medical supplies to vulnerable groups. In west London, Dial-a-Ride helped deliver meals, prepared at a local gurdwara, to the community. In Newham the service worked with its taxi subcontractor to deliver PPE to council offices, and prescriptions, food parcels and meals to around 900 households. In the early days of the pandemic, Dial-a-Ride also helped deliver equipment to the Nightingale Hospital in east London.



Dial-a-Ride offers a helping hand

Accessibility and inclusion

Our transport network plays a vital role in ensuring all Londoners can access opportunities the Capital has to offer. We need to ensure that our recovery from the pandemic is inclusive and that everyone can travel on our network with ease.

Since 2015, we have been tracking our progress on accessibility by seeking to reduce the additional journey time for people using the step-free network compared to the full network.

In the last year, Osterley, Debden, Amersham and Cockfosters stations have become step-free, bringing the total number of London Underground stations with step-free access to 83.

In addition, on the TfL Rail route, Acton Main Line and West Ealing became step-free (street to platform) in March 2021 and the first phase of work to provide step-free access at Ealing Broadway is nearing completion. West Drayton, Hayes & Harlington, and Southall stations remain on track to be step-free by the summer of 2021.

Work is also progressing on the eastern section at Ilford and Romford stations. They are forecast to enter service before the opening of the central section of the Elizabeth line.

The bus service is fully step-free, along with all DLR stations and tram stops, as well as 60 Overground stations and 25 TfL Rail stations.

Number of step-free stations and percentage step-free (street to platform)

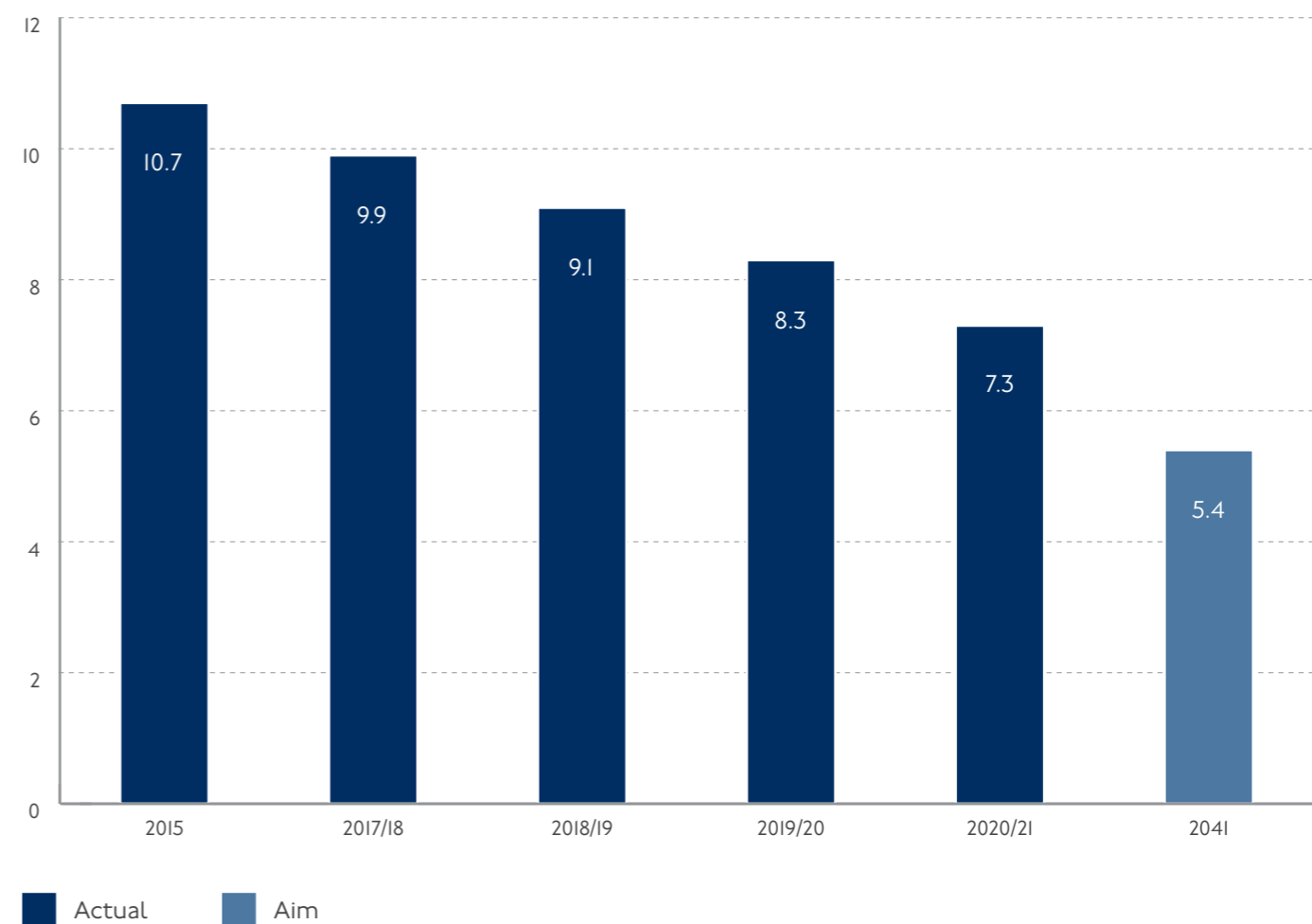
Network	Step-free stations	% Step-free
Tube	83	31%
London Overground	60	54%
TfL Rail	25	78%
DLR	45	100%
Tram (stops)	38	100%

We recognise that providing an accessible and inclusive service is about much more than providing step-free access. We are mindful of the impact our policies can have on those with 'invisible disabilities'.

Over the past year, we have moved quickly to build multi-disciplinary virtual teams to identify, track and quickly resolve issues. This has helped deepen our relationship with key external stakeholder groups that provide insights from their lived experience that can improve our decision-making. The Social Impact Steering Group has representatives from across TfL and met weekly to consider coronavirus-related equality research, evidence and stakeholder input in light of key transport decisions and proposed changes.

Engaging directly with organisations representing the most diverse Londoners and visitors to our Capital remained a top priority for us over the last year. We recognised groups with protected characteristics may have different experiences and concerns around public transport and face different barriers to use.

Relative additional journey time using the step-free network, 2015 baseline to 2041 Mayor's Transport Strategy aim (in minutes)



This shows the reduction in relative additional journey time and highlights that while progress has been made, more is clearly needed.

We worked directly with external stakeholders to understand key issues to help us deliver a transport network that is safe, inclusive and accessible to all. This included the following engagement:

Listening and learning sessions

- In November 2020, we delivered our first listening and learning sessions. These were designed as a chance for our organisation to simply listen to our stakeholders in order to remind ourselves of what we hadn't solved before the pandemic, and to be reminded of the emergent issues as a result of measures to curb the pandemic
- Representatives from Guide Dogs UK, Transport for All, Alzheimer's Society, Age UK, TfL's Valuing People Network and London Vision attended over two sessions. Each representative was given the space and time to share with us the concerns of the groups they work with and for, and to share ideas to help us deliver a better and more inclusive public transport system

Inclusive Streets Engagement

- Inclusive design is essential to building stations that are accessible, streets that heighten safety, and buses and train carriages that are comfortable and pleasant for all to enjoy

- When schemes are designed without inclusive approaches the impacts will be felt most acutely by those with the largest barriers in our society. Measures taken to support social distancing during the pandemic through the Streetspace for London Programme led to some adverse impacts on older and disabled Londoners. Our Inclusive Streets Engagement Programme sought to work through these issues, and discuss solutions with older and disabled Londoners, cycling lobbyists and TfL designers, planners and engineers. The recommendations from this essential project are provided in greater detail in the ensuing recommendation report

We also continued our regular engagement with the Independent Disability Advisory Group (IDAG) which has a variety of professional expertise and lived experience of disability.

IDAG meetings have increased in frequency to enable a sense check with key stakeholders in a fast-moving environment, and to enable pragmatic suggestions to be made to improve how we deliver projects, including those that make direct changes to our network and street space.

Ensuring we have an accessible and inclusive network is crucial, and improving access and achieving mobility for all to our entire network remains at the forefront of our vision. Over the past year, we have taken many practical steps to realise this. These include:

- Remaining fully committed to keeping staff focused on the importance of offering excellent customer service to our disabled customers. Owing to the pandemic, we have been unable to offer face-to-face classroom Disability Equality Training to London Underground operational staff or TfL Professional Services. In response to this, we worked with IDAG to help us develop a suite of videos that could be shared with our operational colleagues. These short, informative videos featured IDAG members talking about their role within TfL and what projects they have worked on to improve accessibility throughout the organisation. Members also discussed their experience as a disabled person using the network to travel across London and offered advice and top tips to staff on how they can best assist disabled customers. Supported by a comprehensive communications plan, the videos have been shared throughout the organisation
- The Travel Mentoring Service continued to serve disabled Londoners throughout the pandemic. It offered a telephone advice service for the first few months of the pandemic, and from September

2020, the service began to offer face-to-face and virtual mentoring on journeys. This was enabled by the development of innovative methods of mentoring using smart-phone technology. The service also added walking to the options of mentored journeys, with virtual workshops to support special needs (SEN) schools to help promote walking, cycling and the use of public transport now in development

- Since face coverings became mandatory on public transport, we have introduced a range of adverts to promote wearing of face coverings on our services. We also introduced a range of measures to support individuals who are exempt from the requirement to wear a face covering. This included making an exemption card for customers to download and present to our staff, as well as face covering exemption badges, with 55,000 badges given out. We also adapted our training to ensure our staff can communicate with those who rely on lip-reading, trained our enforcement officers on exemptions and briefed staff so they can recognise the Hidden Disabilities Sunflower Lanyard
- We developed a new 'Travel Kind' antisocial behaviour campaign in August 2020 to encourage considerate behaviours from customers towards other passengers on the network. The new campaign includes two accessibility focused messages: 'be considerate, not all disability is visible' and 'be patient, some of us need more time than others'

Public transport safety and reliability

The Mayor's Transport Strategy emphasises the importance of improving reliability, so customers have confidence in every journey they make.

Owing to the exceptional year, extra measures have been taken to improve our customers' confidence in our service. These include:

- The ventilation systems on the Underground and the regular opening of doors at stations results in frequent exchange of air in Tube carriages. Over the past year, our engineering experts regularly reviewed the latest Government, Public Health England and SAGE guidance, best practice advice from heating, ventilation and air conditioning industry bodies, and other relevant research to better understand how ventilation can be used as a mitigating factor against the transmission of the coronavirus. Their most recent review confirmed LU ventilation infrastructure is typically designed in excess of statutory minimum requirements with an adequate provision of fresh air. This aligns with the current Government guidance to mitigate against aerosol transmission of the virus
- We commissioned Imperial College London to assess the effectiveness of our controls. Sampling started in September 2020 and continues on a monthly basis. Researchers swab touch points across stations, trains and buses as well as taking hour-long air samples at 300 litres per minute in ticket halls. No

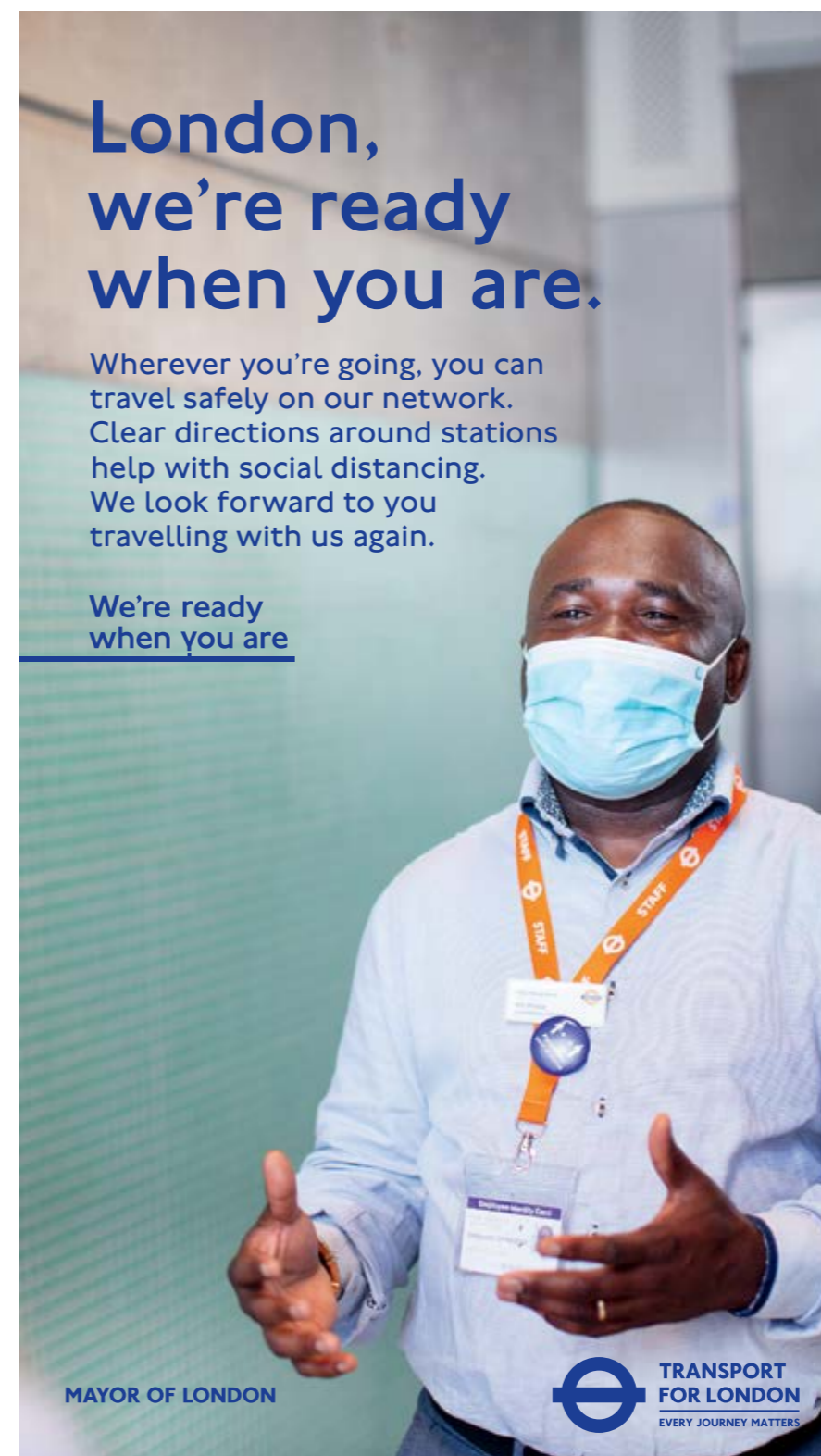
traces of coronavirus have been found in any of the air or surface samples on our system. We published a report from Imperial College London in February: The report can be found at [tfl.gov.uk](https://www.tfl.gov.uk) (go to publications and reports)

- We have worked with the BBC to share our approach with our customers to give them confidence that we are managing this risk. A short film of the Imperial College testing is available on the BBC website at www.bbc.co.uk

Safety and reliability remain top customer priorities and during 2021/22 we will focus on:

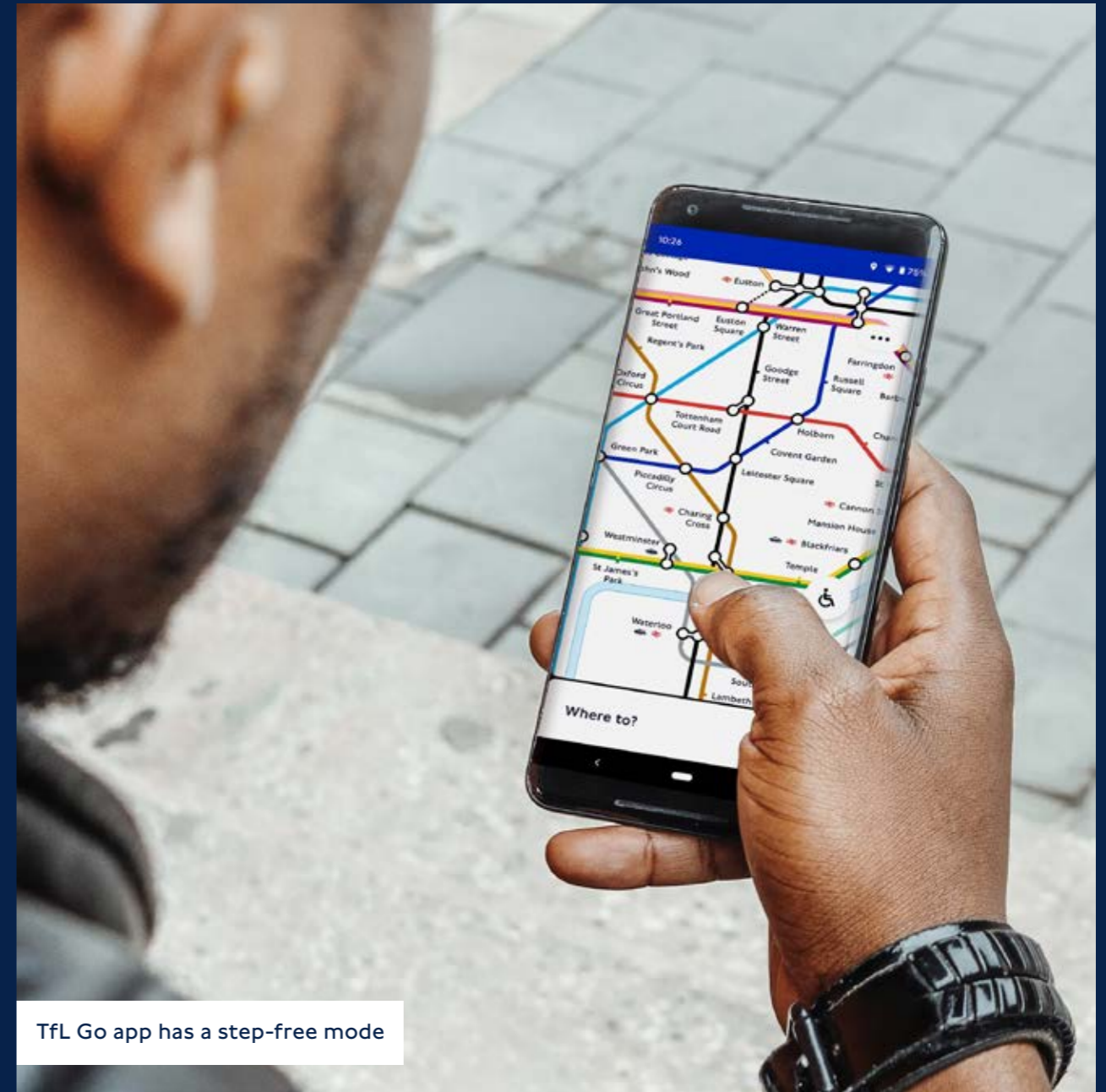
- Rebuilding confidence through our 'We're ready when you are' campaign providing empathy, information and guidance for those who are ready to travel on the public transport network
- Encouraging and enforcing face coverings while recognising not all people can wear them and this is not always obvious to others owing to 'invisible' disabilities. We will manage our capacity to help customers avoid crowding and observe social distancing, and maintain high standards of cleanliness and ambience including use of anti-viral products across stations and vehicles
- Providing better real-time information to support decision-making, especially during disruption, thereby reducing customer pain points

A 'We're ready when you are' advert





Face covering signage on the network



TfL Go app has a step-free mode



A mask exemption identifier

Focus on: TfL Go

The TfL Go app was launched in August 2020. The app provides real-time train and bus arrival times in a mobile-friendly interface built around our iconic Tube map. It also delivers information on the quieter times to travel, to help customers maintain social distancing, and alternative routes including walking and cycling options. More than 160,000 people have downloaded the app since its launch.

The app improves accessibility information by introducing a 'step-free' mode with easy access to live lift status and detailed platform information. It is also designed to work with screen readers and bigger type sizes. During 2020/21, our key focus will be on integrating customer accounts and payment features.

Customer service quality

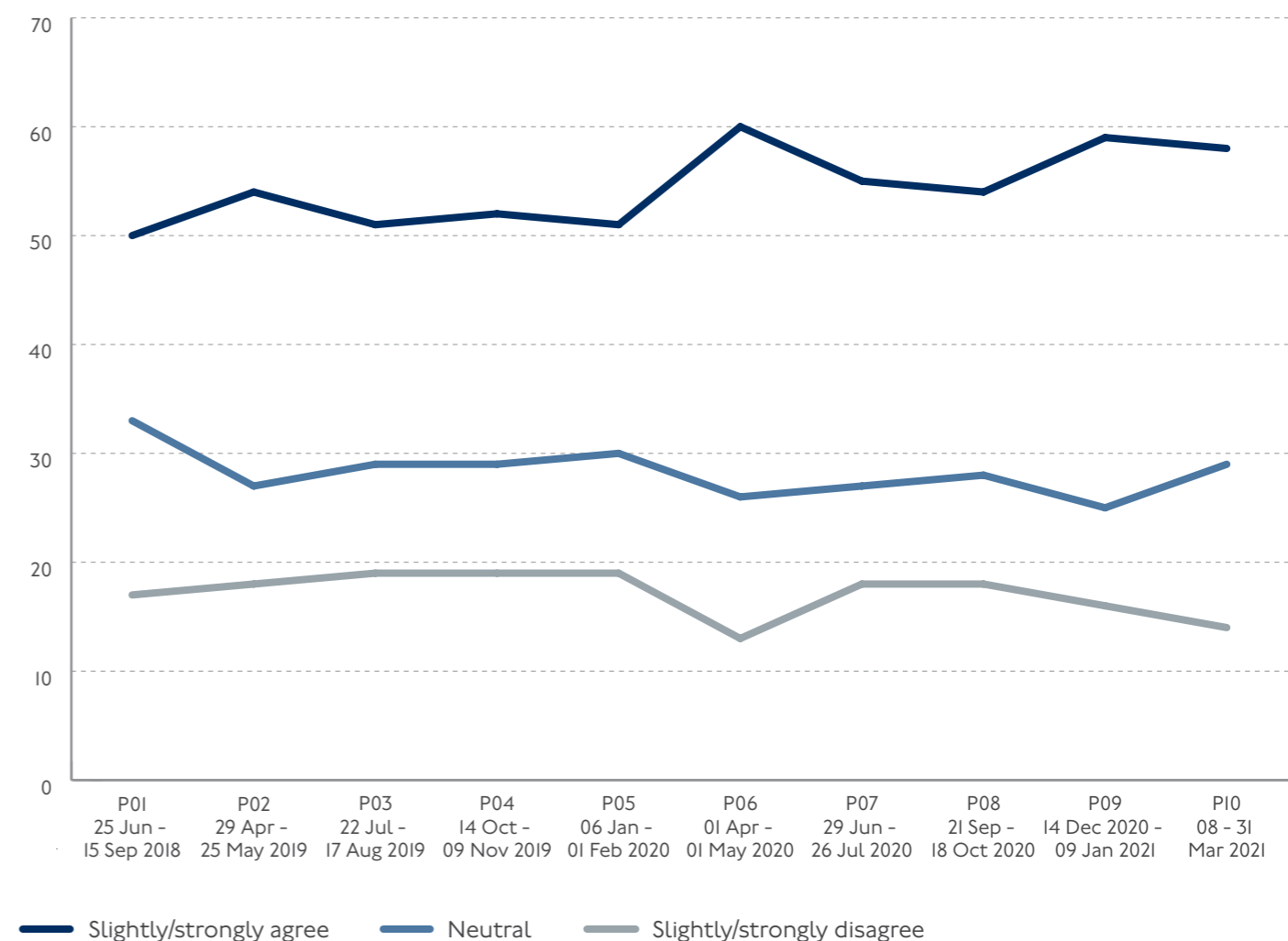
The Mayor's Transport Strategy sets out the need to improve customer services so the whole public transport network becomes easier and more convenient for more people. The percentage of Londoners who agree that 'TfL cares about its customers' is the measure we use to understand whether we are meeting Londoners' expectations and delivering on 'Every Journey Matters'. The key drivers of care are additional metrics which help us to understand how well we are delivering for Londoners and show where we should be focusing efforts to improve the customer experience and perceptions of TfL. These are:

- Being an organisation I trust
- Communicating openly and honestly
- Supporting our customers when things go wrong
- Investing to improve journeys
- Having friendly and helpful staff

The graph on the right shows the metric for 'TfL cares about its customers' performed strongly throughout the coronavirus pandemic, outperforming previous years, demonstrating Londoners' overall perception of customer experience is on the right trajectory.

Customers praise reliable services and good safety measures, and positive experiences of friendly and helpful staff are always appreciated. Improving our performance across the key drivers, particularly 'supporting customers when things go wrong' will continue to improve the quality and perception of our customer service.

TfL cares about its customers metric (%)





The proposed Bollo Lane housing development

New homes and jobs

Good growth

The transport network has a crucial role to play in supporting people to live and work in London. New public transport connections can make parts of London viable places to build homes and create jobs for the first time. Using the Healthy Streets Approach to plan new developments around walking and cycling for local trips, and public transport where walking and cycling takes too long or is impractical, enables people to live active and healthy lives and the city to function effectively as it recovers and grows.

This approach will also contribute to the London Plan's aims for Good Growth, which are to build strong and inclusive communities, make the best use of land, create a healthy city, deliver the homes Londoners need, grow a good economy and increase efficiency and resilience.



The new Barking Riverside Overground station

The London Plan

After several years in development and consultation, the new London Plan was published on 2 March 2021. It sets out how the Mayor and London's boroughs will help to improve quality of life for Londoners and sustainably accommodate the growth forecast for London.

The 2021 London Plan aims to deliver far more new homes in the Capital, with a target of 52,000 a year, including 12,000 a year from small sites.

Transport priorities, including mode shift, Vision Zero and the Healthy Streets Approach, are fully reflected in the London Plan's policies. This means that new homes in well-connected locations should be car free, the area around development sites should be designed to prioritise walking and cycling, and land for public transport should be protected. The London Plan also allows for financial contributions to be secured from developers to support the walking, cycling and public transport improvements needed to enable growth.

We have also worked to reflect the aims of the London Plan and Mayor's Transport Strategy in London boroughs' local plans. For example, we successfully argued that London borough proposals for car parking at locations with the highest Public Transport Accessibility Level did not conform with the principle of car-free development where public transport access is highest. The City of Westminster has recently consulted on proposed modifications to its draft local plan to bring it in line with the London Plan, meaning most of the borough will now have car-free development. Other boroughs including Southwark, Lambeth and Waltham Forest, have proposed parking standards that are in line with, or go beyond, the requirements set out in the London Plan.

TfL Growth Fund

TfL's Growth Fund is designed to unlock homes and regenerate areas of London where transport acts as a constraint. The revised TfL Budget classifies all Growth Fund schemes as fully meeting the mayoral objectives but 'contingent on additional funding'. This means that, although all

Growth Fund projects have already secured strong commitment and a substantial third-party funding, further commitment by Government or other third-party sources is needed if they are to be delivered.

Over the past year, despite a pause on several projects owing to the coronavirus pandemic and funding uncertainty, progress has been made to deliver schemes funded by the programme which support Good Growth, including:

- Tottenham Hale station upgrade is currently in construction and is now set to open late 2021. The station is supporting the delivery of 5,000 new homes and 4,000 new jobs in the Tottenham area
- The new step-free Barking Riverside Overground station will support the delivery of 10,800 new homes, schools, and community space. Construction of the station and 1.5km viaduct is nearing completion and the new line is due to open in 2022 (subject to the re-agreement of a revised Network Rail infrastructure

'possessions' programme – following the construction 'safe stop' in March to June 2020, owing to coronavirus)

- Construction work on the new southern entrance at Ilford station for TfL Rail was completed successfully in January 2021. This will support the development of 2,000 new homes, accommodating the new demand and benefiting bus passengers who are alighting at stops along Ilford Hill

In addition, all urgent Growth Fund schemes in feasibility or design stages are also continuing to receive case-making support. We are working closely with the GLA, central Government and other partners, to discuss further third-party funding for Growth Fund schemes in order to continue with the delivery of 11 growth-enabling projects in the programme, which support more than 42,000 homes in the current Business Plan period.



The new Bollo Lane development at street level

Unlocking growth

TfL has continued to work with Government to secure funding for transport infrastructure that can support Good Growth. In 2019, the Government approved our bid to the Housing Infrastructure Fund for £81m to increase the frequency of the core section of the East London Line to 20 trains per hour, as well as increase the capacity of Surrey Quays station and construct a new station at Surrey Canal Road. This is in addition to the £291m secured in 2018 to increase the capacity of the DLR. We are progressing both schemes with Government. They would be expected to unlock around 30,000 new homes.

The Levelling Up Fund is a recently announced £48bn capital fund for the whole of the UK. It will invest in infrastructure that improves everyday life across the UK. Bids of up to £20m (£50m in special transport circumstances) are currently open to support town centre and high street regeneration, local transport projects, and cultural and heritage assets. As part of this, London boroughs will be able to bid for projects of all types and GLA can submit one additional transport bid. Bids can be submitted as individual schemes or as a coherent package of schemes.

The National Home Building Fund (NHBF) is an as yet unconfirmed successor to the Housing Infrastructure Fund, which could support infrastructure spend to unlock housing delivery. NHBF funding does not have a confirmed date for announcement and could be expected sometime next year. This year, Homes England and the Ministry of Housing, Communities and Local Government are developing a pipeline of schemes that could attract funding. We are currently developing a project pipeline in conjunction with the GLA and working closely with Homes England on the transport schemes with the greatest potential for funding. All project pipeline progress is reported to the cross-GLA/TfL Growth Areas Coordination Panel.

Housing on TfL land

TfL continues to directly support the delivery of new homes on land it owns across London. Work has already either started or completed on more than 1,500 homes and we have planning approval for a further 6,500 homes across 21 sites. We have schemes submitted for planning, pending decisions, that should be capable of delivering 1,300 more new homes, and up to a further 4,000 homes are due to be submitted to planning.

Market uncertainty, financial challenges and delays resulting from the pandemic, including extended planning application consultation timescales, have meant that we did not reach our target of work starting by March 2021 on all sites needed to deliver 10,000 new homes, 50 per cent being affordable. However, recent approvals at planning committee have included:

- At Montford Place (Lambeth), 139 homes (40 per cent affordable) including 29,000 square feet of 'makers space' for small local businesses

- At Wembley Park (Brent), 454 homes (40 per cent affordable)
- At Bollo Lane (Ealing), 852 homes (50 per cent affordable)
- At Nine Elms (Wandsworth), 479 homes (40 per cent affordable)

We remain committed to delivering our housing programme in full as soon as possible, and will be working with the GLA, developers and councils to make sure that we can build the homes our city needs in a safe, responsible and transparent way. Since 2016, more than 50 per cent of the homes we have brought forward have been affordable housing.



Work taking place at Blackhorse Road station parking lot

Focus on: Housing developments on station car parks

Our schemes to redevelop 12 station car parks will result in an additional 3,000 homes and a reduction of approximately 2,550 spaces. This has the potential to reduce vehicle trips to these stations by 1.3 million a year. This will reduce noise, congestion and emissions, improve air quality in local streets, and promote healthy, active travel and the use of public transport.

An example of this work, the Blackhorse Road development, is pictured above during its construction. Similar schemes for development of TfL car parks are also being promoted at sites in Colindale, High Barnet and Finchley Central.

The future delivery of the Mayor's Transport Strategy

We need to remain focused on achieving mode shift, despite the uncertain future, if we are to avoid a car-led recovery.





While the Mayor's Transport Strategy looks ahead to 2041, the next phases of its delivery will clearly need to be shaped around supporting London's recovery from the pandemic.

This section provides an update on our view of London's recovery to 2030, and the way this may change volumes and patterns of travel in different parts of London.

The section then considers how we might ensure a green, inclusive recovery while also contributing to achieving the long-term overarching mode shift aim of the Mayor's Transport Strategy, by:

- Supporting the economic recovery of the Central Activities Zone (CAZ)
- Strengthening our approach to delivering Healthy Streets across London
- Ensuring public transport meets the needs of all Londoners and we win our customers back
- Decarbonising transport
- Continuing to support and plan for London's longer-term growth

Scenarios for London's recovery from the pandemic

We live in a period of unprecedented uncertainty. The scale and duration of the pandemic has led many people to speculate about the future direction of the Capital.

Scenarios are varied stories about the future of London that help TfL operate in such uncertainty.

In our last Mayor's Transport Strategy progress report to the Board in July 2020, we set out the five plausible scenarios for the implications of the pandemic on travel demand over the period to 2030. These consider how quickly the public health crisis dissipates, the speed and nature of economic recovery, how working, shopping and leisure practices might change in the medium to longer term, and changes to London's place in the world and impacts on population/demographics and jobs.

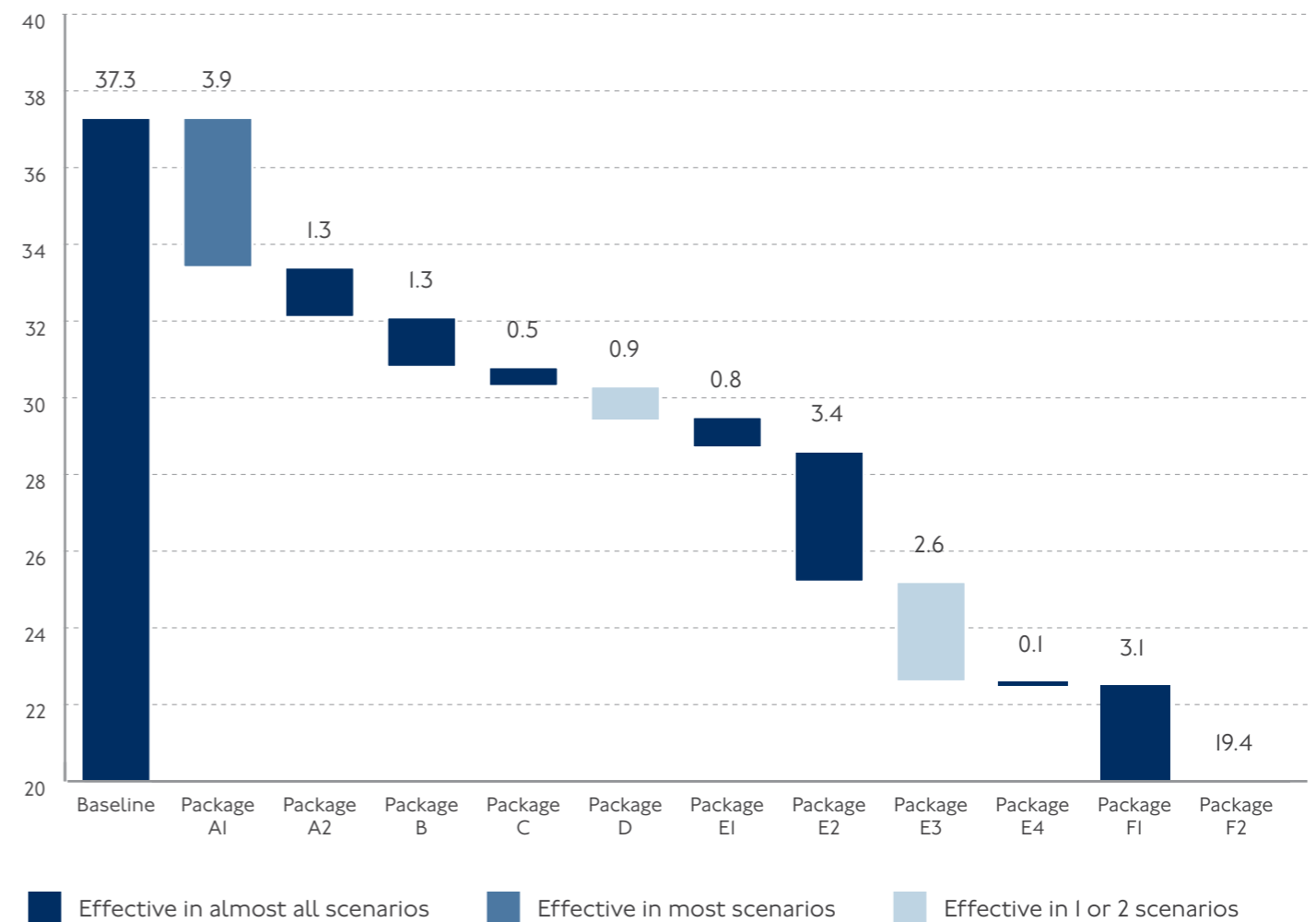
It is important that, regardless of the scenario, London continues to have a vision for long-term growth and a set of active policies that will help us achieve that vision. The Mayor's Transport Strategy provides a comprehensive vision for transport in London which, at its core, is a roadmap for London to grow sustainably for all. We have assessed the relevance and challenges associated with achieving the Mayor's Transport Strategy vision in a post-pandemic world.

Given the significant range in outcomes presented by the five scenarios, we have developed two multi-year forecasts to enable detailed assessments: a 'Hybrid' that provides a central position in the factors that define the scenarios, and a 'Reference Case' that accounts for the macro-economic effects of the pandemic, but does not account for any behavioural change that may occur.

The Hybrid and Reference Case can be used for detailed analysis, and they have informed the Financial Sustainability Plan and are being incorporated into our scheme assessments. However, given the constantly changing situation, we will keep the uncertainty.

When assessing the Mayor's Transport Strategy against the uncertainty, we see that in four of the five equally plausible scenarios we would require a more ambitious approach to achieve the long-term mode share aim set out by the Mayor's Transport Strategy. In a number of scenarios, a reduction in office working, or a redistribution of economic activity out of the centre, means more people travel locally 'by their own means'. While this can be positive for walking and cycling mode shares, it often also leads to higher car use and most importantly, a significant reduction in rail. Without intervention, this suggests that there is a risk of recovering from the pandemic into a more car-dominated future over the next decade, which would also have the potential for negative impacts on air quality.

Effectiveness of complementary action development



2017 (Baseline)

Package A1: Growth to 2041 with funded transport schemes

Package A2: Accelerated cycling growth

Package B: Bus priority and bus network improvements, road space reallocation

Package C: Underground, metroisation and other upgrades

Package D: Extensions including Crossrail 2 and Bakerloo Line Extension

Package E1: Workplace parking levy

Package E2: Major increase in parking charges across London

Package E3: London Plan residential parking charges

Package E4: Further car ownership charge and road space reallocation

Package F1: GLA-wide road-user charging

Package F2: 2041 Mayor's Transport Strategy



Car-free zones encourage walking and cycling

We have considered how effective the policies in the Mayor's Transport Strategy will be in achieving mode shift across the five scenarios. Broadly, those that curb the demand for car use, increase the attractiveness of walking and cycling, and improve bus performance remain resilient opportunities across most, if not all, of the scenarios. However, investment in major rail schemes is only effective in some of the scenarios and so consideration should be given to the timing and wider objectives of such schemes when determining our future priorities.

One of the most impactful ways to change how people in London travel is accommodating London's growing population in quality housing, located in areas of good public transport and urban realm, that encourages walking

and cycling to local areas. Road pricing to manage traffic congestion and associated environmental impacts, is effective in encouraging a change in existing travel patterns. If growth is lower over the next 20 years, then we are more likely to have to rely on pricing measures, subject to evidence base, appropriate consultation and impact assessment, and compliance with statutory process and conformity with the Mayor's Transport Strategy.

There is also a role in several scenarios for complementary targeted action that encourages a cultural shift and attitudinal change to maximise the benefit of investment and schemes. The impact of each intervention in contributing to a shift to the 80 per cent sustainable mode share target is shown in the graph on page 41.

Spatial opportunities

The five scenarios have also been used to explore spatially the key opportunities that will be required to underpin a green, inclusive recovery.

Inner and outer London

The diversity of the scenarios means there will be a broad range of potential outcomes for inner London. Most of inner London is already well connected by public transport, but high levels of traffic would continue to hold back its potential for liveability, affecting bus journey times and quality of walking and cycling. Road space reallocation and flexible pricing would be effective. This needs to be combined with well thought-out mitigations to provide an alternative for areas of car dependency and to encourage active travel.

There is now potential for a wider mix of uses in outer London, with greater focus on jobs and culture as well as housing delivery. We need good sustainable alternatives to avoid a car-led recovery. In particular, there is a concern about the growth in cross-boundary trips, and a need to focus on encouraging a switch to cleaner vehicles for essential travel.

Rejuvenated town centres and high streets could offer a catalyst for a sustainable transport revolution. Improved bus services could provide more people with access to town centres, as well as helping connect town centres and supporting local businesses. This will help to provide an attractive alternative in areas where car use is currently high.

Central London

Despite different ultimate outcomes in the scenarios, it is clear that space should

be reorganised and reallocated to enable a flexible rebuilding of the city where a ‘flight to quality’ is likely after the pandemic for both employers and employees. We will also need to keep traffic levels low there to enable an improvement in the quality of the public realm, to lock in more use of active modes when travelling to and within the centre. Use of land could change with greater residential units returning and some degree of ‘reverse commuting’ could occur.

In November 2020, the GLA appointed Arup, together with Gerald Eve and the London School of Economics, to carry out a piece of research looking at the different economic futures facing the CAZ. The final report included six recommendations covering the imminent recovery period and looking longer term over the next decade. Recommendations one and two have the greatest implications for transport.

- Recommendation one: Provide immediate support to re-ignite the CAZ ecosystem and to bring people back
- Recommendation two: Develop the CAZ as a model of a sustainable, healthy and green urban centre, with a thriving arts and culture, and entertainment and hospitality offer

Recommendation two is echoed strongly in the City of London Corporation’s Square Mile: Future City report, where transport policy and urban realm improvements are central in creating a vibrant, diverse and sustainable ecosystem.

Our ongoing work on the Streetspace for London Programme and reviewing the Congestion Charge are important deliverables to support this vision.

TfL’s five scenarios

		Million trips per day (2030)	Active, efficient and sustainable mode share (2030)
Return to business as usual	The story of a London which has bounced back quickly from the crisis and looks quite similar to that envisaged by the recently published London Plan.	31	69%
London fends for itself	The story of a lower-growth London, having to cope with the fallout from the virus and a diminished status in the UK and the world.	27	59%
Low carbon localism	The story of a smaller but more sustainable London, which has been impacted significantly by the virus and become more local as a result	31	66%
Remote revolution	The story of a successful but quite different city, where technology has changed how people live, work and travel.	27	64%
Agglomeration, agglomeration, agglomeration	The story of an expanding but still unequal London, where virus-related changes to the economy enhance its competitive advantage on the global market.	35	73%



Streetspace for London creates more space for cyclists

Future delivery priorities

In the context of what we have learnt from the five scenarios, this section comments on how our long-term delivery priorities might have shifted given the challenges and opportunities presented by the post-pandemic recovery.

Strengthening our delivery of Healthy Streets

As has been demonstrated above, the reallocation of road space and provision of supporting infrastructure and schemes to encourage more walking and cycling across London, is central to promoting a sustainable recovery. It also provides a basis to rejuvenate town centres and the access to them.

Section three of this report sets out what we have delivered under the Streetspace for London Programme. From 2021/22 onwards we will be returning to our long-term Healthy Streets investment programme. The portfolio returns with a refreshed vision, to ensure that it remains relevant and fit-for-purpose in the context of the green, inclusive recovery.

Specifically, the pandemic has shone a light on a range of acute and urgent challenges facing London, including deep physical and mental health inequalities; isolation, inaccessibility and inequality; climate change and decarbonisation; supporting the economy; winning our customers back to rail and bus modes; and rising car traffic and road danger.

Changing and improving our streets is fundamental to addressing these challenges, by creating streets that are safe, inclusive and accessible for everyone, and which prioritise movement by buses, walking and cycling, as well as supporting freight and other essential journeys.

Healthy Streets will therefore play a crucial role in delivering London's green, inclusive recovery, as well as continuing to drive progress towards the Mayor's Transport Strategy goals, building on pre-pandemic delivery.

As well as shaping Healthy Streets delivery to support the green, inclusive recovery, we are also adapting the way we plan and deliver Healthy Streets. This is in response to lessons learnt from our pre-pandemic delivery and also from the Streetspace for London Programme.

This will include modern engagement techniques to understand community needs and ensure a diverse range of input into schemes, and the potential use of temporary materials and Experimental Traffic Regulation Orders to trial schemes and enable delivery where appropriate.

It will also include a clear focus on traffic reduction, with buses, walking and cycling jointly prioritised through Healthy Streets delivery, while considering the needs of freight and disabled and older Londoners (including those who rely on taxis or private hire vehicles for their mobility). We will achieve this by taking an integrated approach to planning, ensuring that the Healthy Streets portfolio is delivering overall positive change for road safety, buses and active travel.

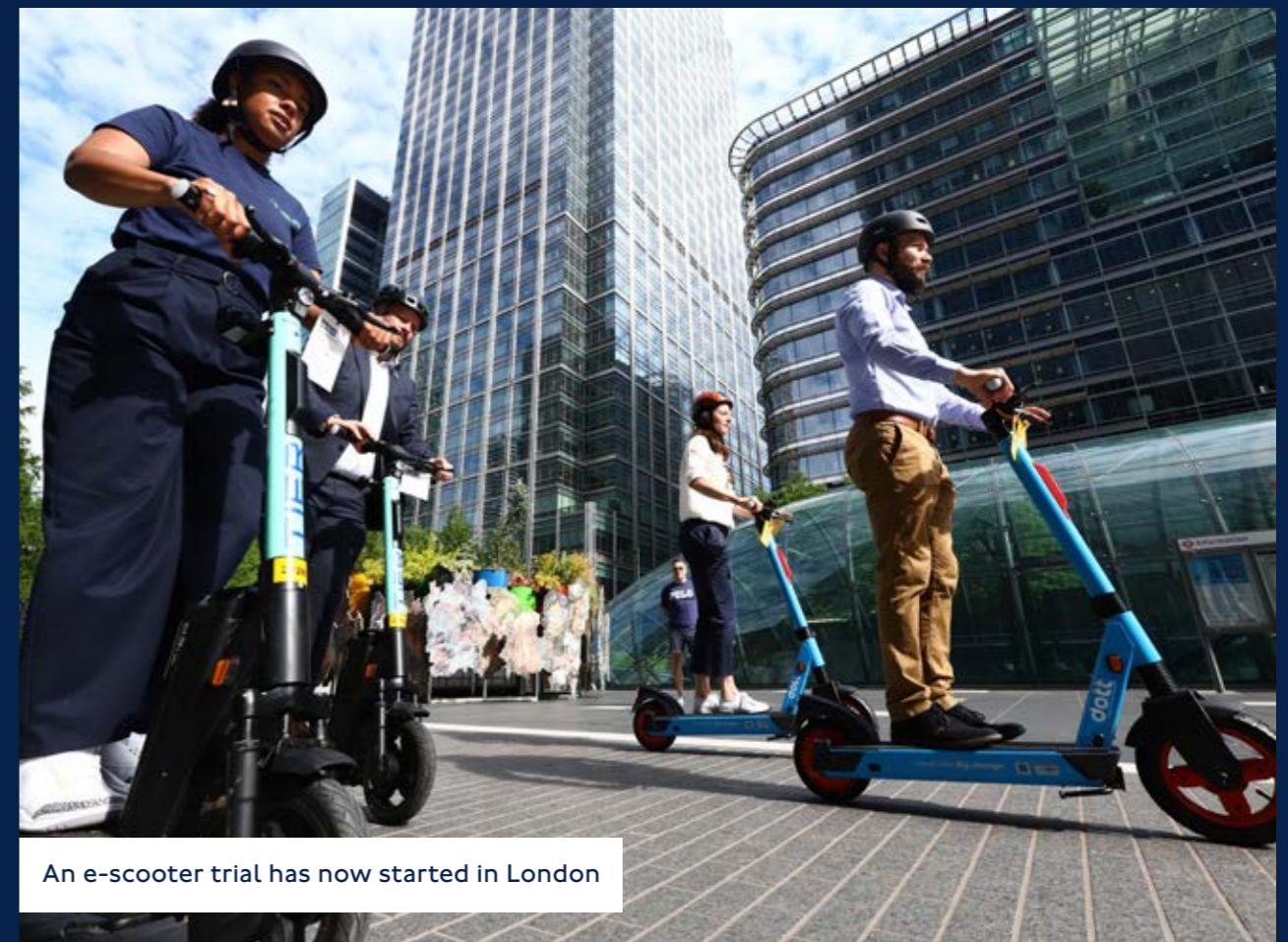
We will support the freight and servicing industry and maintain the essential access for the safest, cleanest and most efficient freight and servicing trips, as we deliver Healthy Streets and respond to the post-pandemic shift in consumer behaviour and spatial patterns and trends. We have reviewed the actions in the Freight and Servicing Action Plan and developed a prioritised programme for the short and medium term that will support traffic reduction through re-timing and re-modelling, and reduce emissions.

We will continue to focus on supporting safe, clean and efficient freight by encouraging consolidation, collective procurement and a switch to sustainable modes. We will work with partners to ensure more goods are moved by rail and water, especially light goods.

We will support the Mayor's Transport Strategy through the GLA supply chain by embedding Construction Logistics and Community Safety into our procurement contracts to ensure the safest construction journeys in London. We are also committing to all last mile deliveries to be zero emission by 2025, to support clean and efficient freight.

We will do further work with the delivery, courier and servicing industries to improve safety standards for powered two-wheeler riders. We will continue to deliver free training and will evaluate whether more robust licensing and training standards would reduce road danger, while improving street design and maintenance, and encouraging mode shift towards more active and sustainable modes.

This renewed focus for Healthy Streets will ensure that our investment in London's roads is delivering a green, inclusive recovery, as well as longer-term Mayor's Transport Strategy aims. This will build on previous delivery while adapting to the post-pandemic context as well as lessons learnt.



Focus on: E-scooter trial

To support the green restart of local transport and help mitigate reduced capacity on public transport, the DfT provided guidance in summer 2020 to allow local authorities in the UK to trial e-scooters as part of a rental scheme. With strong operator and borough interest for trials in London, we have been working with London Councils and the London boroughs to deliver a coordinated multi-borough trial that will promote safety at its core and build an evidence base to assess the impact of e-scooters on London's transport goals.

Following an open and competitive procurement process, which assessed operators on their ability to meet high

safety and operating standards, Dott, Lime and Tier have been selected to deliver a trial in London, to launch spring 2021 for an initial 12 months, starting in a few London boroughs with more to join throughout the trial.

Operators will be required to provide critical data for TfL and the boroughs to understand the impact of e-scooters on London's transport goals, including Vision Zero, a shift to walking, cycling and public transport, zero-emission targets and other aspects of the Mayor's Healthy Streets Approach. This data will be shared with the DfT as it looks to bring in new legislation in this field.



We are improving bus services

A good public transport experience

Continuing to improve the experience of using public transport will be key to achieving a green, inclusive recovery in all five of the scenarios to 2030.

A good public transport experience – our bus services

Bus service improvements are particularly resilient to the uncertainty of the future. Bus services are a flexible means to provide public transport connectivity in response to the changing travel patterns we might see over this decade. Improving bus services will also keep us on track to achieve the longer-term mode shift ambition envisaged by the Mayor’s Transport Strategy.

Bus travel is the main sustainable alternative to car use in many parts of London, and for many Londoners who are unable to walk or cycle even short distances it is the main mode of transport. This means improved bus services are critical to avoiding a car-based recovery, and accelerating electrification will support decarbonisation in a green recovery.

Bus travel will have an even bigger role in supporting new homes and jobs in the medium term if rail schemes are deferred.

We therefore need to focus over the coming decade on restoring people’s confidence in the bus network and make bus travel more attractive to more people. We can do this by addressing challenges under five mutually supporting themes:

Safety and security

Safety is our number one priority, which means working with boroughs to deliver Vision Zero on the street network and communicating the steps we are taking to enhance safety and security, including additional measures such as enhanced cleaning to restore customer confidence following the pandemic. We will also work with operators to focus on the health and wellbeing of our staff.

Customer service, including accessibility

We will work with boroughs, public transport advocates and community groups, including disability stakeholders, to ensure the customer experience of using the bus matches the expectations of Londoners and is relevant to the communities we serve. We will promote our services so that Londoners can hear about a bus network that is on the up.

Journey times

Initially, a journey-times focus will be the most efficient use of TfL’s resources. Improving journey times across London provides benefits to existing customers, while also delivering operating savings that can be reinvested to provide better connectivity and improve vehicles, stops and shelters. This aligns with the national strategy for buses, as set out in the Government’s Bus Back Better report.

We will develop proposals on the TLRN and work with boroughs to develop proposals to deliver bus priority where there is a strategic need to do so on their highway. Through our multi-modal approach to streets, we will ensure that enhancements for bus and other sustainable modes complement each other as part of an overall active, efficient and sustainable offer for Londoners.

Connectivity

We will use our data and listen to boroughs and customers to understand aspirations for new connections and new service types, developing proposals for these where appropriate. We will work with boroughs to unlock growth and leverage funding opportunities arising from this.

Environment

We will deliver cleaner air for residents and other road users alike, and work with Government towards our shared objectives for decarbonisation, by electrifying our bus fleet as soon as we can.

A good public transport experience – rail and Underground

Efficient and effective rail infrastructure plays a central role in facilitating the recovery of the CAZ, achieving London's sustainable mode share aims and in enabling high-density, mixed-use development, which will support London's growing population.

We will continue to ensure that our extensive Underground asset base is maintained to provide a safe and reliable service. To keep our network safe and operable over the long term, we need to get to a level of steady state asset condition. This is our baseline level of investment, which is what we need to do to keep our existing system safely operating and reliable, and which is core to continuing to provide a good public transport experience.

We will continue the current funded programme to enhance and modernise the Tube network. This will include:

- Signalling – replacing the legacy signalling system on the Circle, District, Hammersmith & City and Metropolitan lines with a modern, digital system which covers 40 per cent of the Tube network and replaces some of our oldest signalling assets

- The upgrade of the network has been split into sections known as Signalling Migration Areas (SMAs). In the past year, two SMAs were commissioned, extending the upgraded area from Euston Square to Stepney Green and Sloane Square. The majority of the central section (five SMAs) of the Sub-Surface Railway now has automatic signalling. A new timetable will be introduced in September 2021, adding an additional train every hour to the peak service and reducing journey times
- Installation of signalling equipment has continued on the trunk of the Metropolitan Line in preparation for system testing. Installation of signalling equipment on the branches can commence now, as enabling works have been completed
- Supporting infrastructure work is also being progressed, such as upgraded depot assets, which will allow for heavy maintenance activities on the recently introduced S-Stock trains
- The new trains for the Piccadilly line are expected to enter service from 2025 and will replace the existing 1970s fleet. This will boost reliability and provide the ability to increase frequency during peak times, from 24 to 27 trains per hour

We will also continue the current programme to extend the capacity and reach of the transport network.

- Northern Line Extension – the extension of the line to Battersea is planned to be brought into service in autumn 2021
- Bank station – the work to increase the capacity of the station to reduce congestion and crowding will be completed by 2022
- DLR – there will be potential service enhancements in the lead up to the delivery of new trains in the mid-2020s
- London Overground – the provision of off-peak services between Clapham Junction and Shepherd's Bush remains under consideration

The pandemic may delay projects from a funding perspective. However, our plans still include station enhancements beyond the current committed projects above, to support London's growth and to help Londoners move around the city. The exact details of future projects are dependent on funding. The cases for the following station enhancement projects remain high even if we assume that demand is lower in the medium term. We are planning schemes in order to deliver:

- Step-free access at 20 to 30 stations over the next 25 years
- Additional capacity and improved accessibility at Elephant & Castle, Paddington (Bakerloo line ticket hall), Holborn and Oxford Circus

We also assume we will carry out some smaller-scale works at some stations relating to third-party and commercial development opportunities.

Crossrail is in the complex final stages of delivering the Elizabeth line. Work continues across the project at pace, and it is still anticipated that the line will open for passenger services in the first half of 2022.

We are also working with Network Rail to plan for rail services over the next 20 years to enable economic recovery, sustainable housing growth and underpin net zero-carbon emissions. Further joint work will identify priority improvements to customer service, ticketing and interchanges.

The Williams-Shapps Plan for Rail, creating Great British Railways, should realise the full potential of the rail industry as it recovers from the impact of the coronavirus pandemic. TfL looks forward to working with this new public body on current and future rail services in and around London.



The expanded ULEZ launches in October

Reducing emissions

Further improving air quality and reducing carbon emissions are critical for the health of Londoners and the planet, and will remain a priority for the foreseeable future. While we have made good progress to reduce road and rail transport emissions over the last 12 months, particularly given the challenge of the pandemic, there remains considerable work to be done.

The Mayor has a commitment for London to be carbon neutral by 2030 (this allows for emissions reductions to be supplemented by, for example, offsetting and carbon capture and storage) and is calling on Government investment to support the transition.

This will require acceleration and intensification of a range of pre-planned measures, as well as the introduction of new measures to reduce transport-related carbon emissions across the city.

Road transport will, therefore, be a key focus in the lead up to 2030, with initiatives moving forward including:

- Delivering existing initiatives, such as the ULEZ expansion to inner London in October 2021, which will bring significant air quality benefits

- Developing road-user charging proposals to help address traffic congestion and subsequent impacts on emissions (subject to conformity with the Mayor's Transport Strategy, detailed assessment, public consultation and mayoral decision)
- Accelerating and/or intensifying existing initiatives, such as electric vehicle charging infrastructure provision, Healthy Streets schemes to support mode shift, supporting the shift to ZEC taxis and private hire vehicles, and the various scrappage schemes
- Continuing our aspiration for all buses in London to be zero emission by 2030, with a firm commitment by 2037 at the latest
- Introducing new initiatives, such as working with boroughs and partners to develop ZEZs to address local air quality hotspots and to prioritise ZEC vehicles

We will also work on initiatives that look beyond road transport, including:

- Delivering plans to purchase renewable energy through Power Purchase Agreements, which will support our aim for TfL-controlled rail services to be zero carbon by 2030
- Committing to make full lifecycle analysis of all our major infrastructure projects

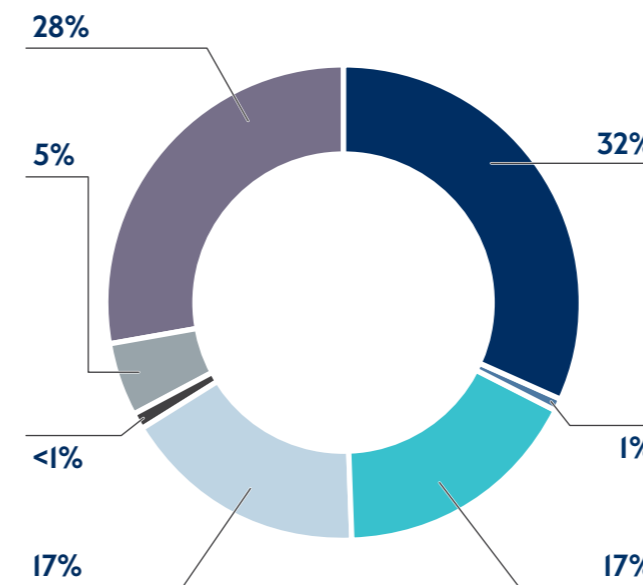


Air quality in London has improved

To both support these initiatives, and better understand what further interventions might be required to reduce emissions to meet the carbon-neutral manifesto commitment, we are undertaking two linked pieces of work. The first is a re-baselining and forecasting of transport emissions to 2030 (this was last conducted to inform the Mayor's Transport Strategy), based on the latest policy commitments, updated London Atmospheric Emissions Inventory data and coronavirus scenarios. This project has already started and results will be available in the summer. Based on this, a second project will identify (with GLA input) potential additional policy interventions and model their likely impact on carbon emissions. Together, these analyses will help us understand how close London's transport could get to achieving net zero carbon emissions by 2030, as well as what the potential scale of offsetting might be.

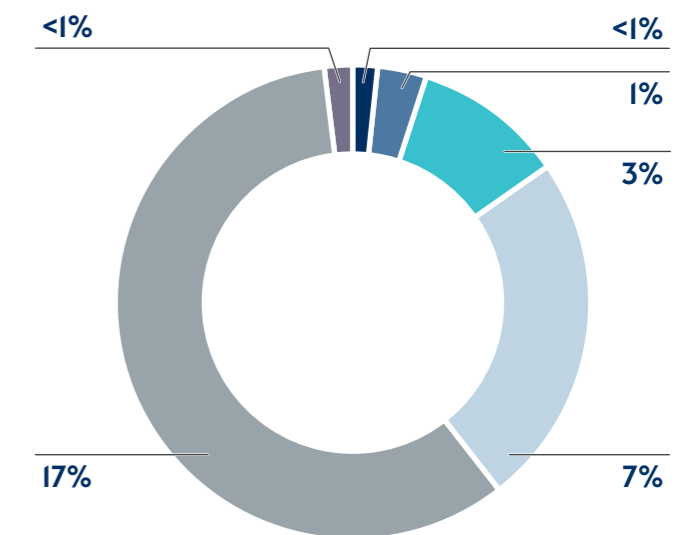
Pie charts showing the sources of CO₂ emissions in London (LAEI, 2016)

Overall emissions (%)



- Domestic heat and power generation
- Construction
- Industrial processes
- Industrial heat and power generation
- River
- Aviation
- Road and rail

Breakdown of road and rail emissions (%)



- Rail
- TfL bus
- Cars
- Other bus/coach
- LGVs and HGVs
- Motorcycle



New public transport capacity is critical to achieving Good Growth

Delivery and planning for London's longer-term growth

There remains uncertainty about the extent to which London will grow in this decade after both the pandemic and Brexit.

Regardless, there is a clear ongoing role for targeted investment to unlock growth and ensure it is sustainable. Improved and new public transport capacity and connectivity, combined with the Healthy Streets Approach, is critical to achieving Good Growth as it enables high-density, mixed-use development in London's town centres and Opportunity Areas.

This investment can include station improvements or transport schemes which directly enable housing and intensification, and also support low-car development and zero-carbon objectives. These schemes often come with a potential to secure third-party funding and we will look to work with developers, local authorities and potentially Government to support our shared priorities.

Crossrail is key to London's growth. A 2018 report by GVA Grimley for Crossrail Ltd, predicted that 90,599 new homes would have been delivered around Elizabeth line stations by the end of 2021 and 180,000 new homes by 2026. The largest concentrations are around stations in central and east London including Canary Wharf, Custom

House, Stratford and Liverpool Street. The largest cluster in west London is at Southall, which includes the former gas works (Southall Waterside) and a number of industrial sites to the south of the station. Judging by the number of planning applications that have come forward over the last 12 months, targets for planning permissions are likely to be met, although there may have been some slowdown in actual housing delivery in the last year.

The Northern Line Extension is also key to unlocking homes and jobs and will open later this year. More than 21,000 homes are expected to be built across the Vauxhall, Nine Elms and Battersea Opportunity Area, exceeding the 16,000 homes originally planned. By the end of December 2020, consent had been granted for 18,481 homes across the Opportunity Area, of which 6,994 had been completed. Planning applications continue to come forward, often with increased housing densities, so total housing delivery will exceed the number originally planned.

We expect that the next round of major projects will not be able to be delivered at the pace envisaged before the pandemic. These schemes include Crossrail 2, and an extension of the Bakerloo line from Elephant & Castle to Lewisham, with a potential further extension to Hayes and Beckenham Junction.

Crossrail 2 and the Bakerloo Line Extension could support up to 200,000 and 50,000 homes respectively. Although work on Crossrail 2 development has been paused, safeguarding remains in place and it is expected that the safeguarding directions will be updated in 2021.

Safeguarding directions for the Bakerloo Line Extension were issued in March 2021 giving greater certainty and protection for the proposed route. We are working closely with Southwark and Lewisham Councils to maximise the potential benefits of the Bakerloo Line Extension in relation to housing delivery and Good Growth.

We have also continued to explore options for an extension of the DLR from Beckton to Thamesmead, as well as a new bus transit corridor within Thamesmead, to support up to 20,000 units on both sides of the River Thames. The work is being taken forward in partnership with local authorities, landowners and in consultation with Homes England.

We are also exploring options to take forward the West London Orbital (WLO), the proposed new London Overground route from Hounslow in southwest London to Hendon/West Hampstead in northwest London. The route would provide a missing orbital link, unlocking potential for new homes and jobs, and connecting to town centres, employment hubs and existing and future transport links to London Underground, London Overground, Elizabeth line, National Rail and High Speed 2 interchanges. WLO services would run on existing rail lines, including some relatively lightly used freight-only lines, making best use of existing infrastructure. The image on the right shows work taking place to construct Brent Cross West station, which would be used by WLO services.

The future development of these schemes, and the benefits they enable, is contingent on the outcome of discussions with the Government on longer-term funding.



A new Elizabeth line station

Delivery of our priorities

We will continue to optimise progress by reviewing it against the outcomes that are set out in the Mayor's Transport Strategy, and then reflecting this in the prioritisation of our investment programme.



Tracking the delivery of the Mayor's Transport Strategy

In order to secure a recovery from the pandemic, we will make best use of resources through decision making informed by scenario planning and an improved strategic tracker.

In March, the Board approved the TfL 2021/22 Scorecard – the set of metrics we will use to monitor our performance over this financial year. In developing the scorecard this year and previous years, we have identified the challenge in linking achievement of long-term Mayor's Transport Strategy aims to the annual scorecard. Many of our longer-term aims are difficult to directly influence and track within a year, meaning they are not well suited to appearing on the annual scorecard. It remains vital, however, to track clearly key metrics of our performance towards these aims.

The pandemic has accelerated the need to deliver on Mayor's Transport Strategy aims and avoid a car-led recovery. This requires a clear vision for what can be accomplished in the short and medium term as well as the long term. To address these issues, we are developing an Mayor's Transport Strategy tracker, and we have committed to presenting this to the Board this autumn. The tracker will provide focus to a small number of quantified metrics and set medium-term ambitions that will allow progress towards our long-term goals to be tracked.

This will move us away from the previous 'graphic barometer' style reporting of outcomes which are on or behind trajectory. It will provide the Mayor's Transport Strategy outcomes with greater visibility to inform our decision making, while being separate from the scorecard, which acts as an in-year performance management tool.

The Mayor's Transport Strategy tracker can sit alongside borough tracking towards Mayor's Transport Strategy outcomes at a more local level. This more local focus will remain important given the need to target resources efficiently and to support boroughs in achieving outcomes such as better conditions for walking, cycling and buses on borough roads, particularly with the largest need for modal shift being in outer London.

We will present the Mayor's Transport Strategy tracker in detail to the Board in the autumn in advance of the expected next TfL Business Plan. We expect the tracker to include measures such as those set out on the right, although this remains draft and we will continue to consider other potential measures.

For each measure included on the Mayor's Transport Strategy tracker, we will set out a medium-term ambition to 2030 that is consistent with achieving the long-term aim, also showing historic performance over a reasonably comparable period back to 2010. These interim ambitions should be consistent with ultimately achieving the 2041 ambition, while helping to give clarity to the requirements to deliver

Potential tracker measures aligned to the Mayor's Transport Strategy outcomes

Outcomes	Potential measure	Mayor's Transport Strategy 2041 ambition
Mode share	Active, efficient and sustainable mode share	80% of trips
Active	% of people doing 2x10min active travel per day	70% of Londoners
Safe	Number of people killed or seriously injured on London's roads	Zero
Efficient	Volume of car trips in central, inner and outer London	Overall 30% reduction from 2015
Green	CO ₂ emissions from London's transport network	Mayor's Transport Strategy: 72% reduction from 2015
	Levels of air pollutants	94% reduction in road transport ; 45-53% reduction in particulate matter from 2015
Connected	Crowding levels on rail and Underground	10-20% reduction from 2015
Accessible	Additional journey time by step-free routes	50% reduction from 2015
Quality	Average bus speed	Increase by 5-15% from 2015
	Measure of rail performance / overall customer satisfaction	TBC
Sustainable	Number of people living in areas with highest PTAL levels	1 million more people living in places with best PT connections
Unlocking	Number of homes built on TfL land	TBC

improved outcomes in the medium term. Setting these interim ambitions will require balancing between a top-down assessment of the required progress to meet the 2041 aim and a bottom-up view of what is deliverable with the right policy and investment support in the 2020s.

For outcome metrics, both the forecast and appropriateness of the 2030 target would be subject to external influences beyond TfL's control. We would therefore keep these under regular review.

Alongside the 2030 interim ambition, where possible, we will also show a trajectory based on current trends and plans. The graph on the right uses indicative data but shows how this could be presented.

Where they exist, gaps between the ambition and the forecast trajectory will show the required level of additional action above existing plans.

This will enable us to identify which outcomes require additional intervention and how large these will need to be. Closing gaps is likely to require a combination of action in up to four areas: operations, policy, capital investment and factors outside TfL's control.

If funding constraints continue, it is likely that increasing action in one area may require cutting back in another, but the Mayor's Transport Strategy tracker will give us a structure to consider the magnitude of such positive and negative impacts, and how different decisions could impact on multiple measures on the tracker, helping to inform decision making.

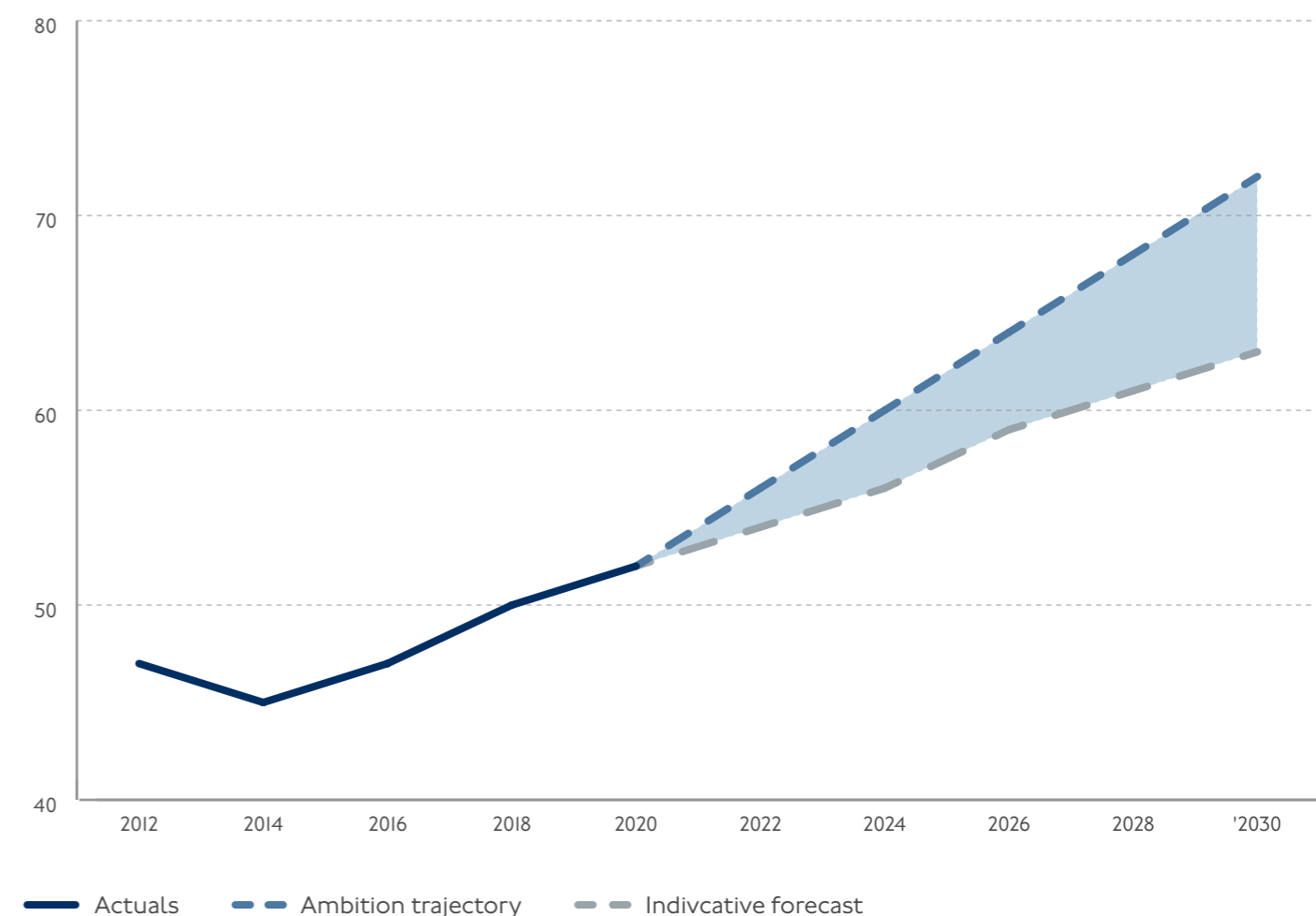
The analysis described above will be valuable in planning TfL's future activities, including developing future Business Plans. Ensuring our activities are targeted, wherever possible, at closing gaps to our Mayor's Transport Strategy ambitions will give greater prominence to these ambitions and show the links between our policy, operational and investment decisions, and our long-term aims.

Meaningful progress towards measures set out on the Mayor's Transport Strategy tracker – many of which are shared local and national priorities – will require long-term sustainable funding and commitment to the policies that support these Mayor's Transport Strategy outcomes.

Forecasting future performance on Mayor's Transport Strategy tracker metrics will in many cases require reference to the scenario planning set out in section four. As we progress with developing the tracker, we will assess such scenarios and determine for different measures whether a single forecast is appropriate or if a range would better reflect future uncertainty.

Over the course of this summer and early autumn, we will confirm the measures to be included on the tracker, agree 2030 ambitions for each of them and forecast performance based on confirmed plans. We will return to the Board in October to present this work and hopefully confirm how we will use the resulting Mayor's Transport Strategy tracker to inform our future activities.

Indicative view of how Mayor's Transport Strategy tracker outcomes could be presented (%)



Securing the resources needed to deliver the aims of the Mayor's Transport Strategy

The Mayor's Transport Strategy identified the investment and services needed to keep London moving and enable it to thrive as a leading world city. The National Infrastructure Commission's National Infrastructure Assessment (July 2018) confirmed the broad level of investment required in London's transport network, alongside investment in transport all around the UK.

This level of investment is even more essential to achieve a sustainable, green, healthy recovery from the pandemic, as well as provide the foundations for a more resilient future. However, the pandemic has highlighted the over-reliance on fares income in our business model and therefore the need to diversify our income sources in order to secure long-term financial sustainability.

The Independent Panel Review (December 2020) and Financial Sustainability Plan (January 2021), both emphasised the value in maintaining and improving London's transport network, and proposed options for addressing some of the funding gap to achieve this.

Securing the resources to deliver the Mayor's Transport Strategy requires commitment from Government to stable, secure long-term funding for TfL, maximising our internal resources and revenue streams together with continued efficiencies. This will maximise the effectiveness of available funding in improving our network and services.

To achieve this, we will continue to progress the actions we set out in the Financial Sustainability Plan and those agreed with the Government on 29 May 2021, covering the period to December 2021.

In particular, we will work with the Government, which has explicitly committed to continuing to work with us on reaching a longer-term financial settlement beyond this, so that we can plan effectively for London's future and deliver value for money through our contracts and supply chain.



We will plan effectively for London's future

Conclusion and next steps

Investment in transport is essential to achieve a sustainable, green, healthy and more resilient future. The pandemic has shown that in many areas an increased pace of delivery is required, therefore we will continue to make the case for stable and sufficient long-term funding.





We need to avoid a car-led recovery

The pandemic has had an unprecedented impact on travel demand and mode share in London. The long-term recovery of public transport demand remains to be seen, but the fact that – at some periods during summer 2020 and more recently – car demand approached ‘normal’ levels, in parallel with continuing low public transport demand, raises concerns that a preference for car travel may persist after the immediate threat from the coronavirus has receded.

A car-led recovery would be undesirable, not least in view of the limited capacity of the road network to handle any additional traffic, with potentially serious consequences for congestion and London’s air quality and environment.

Managing traffic and congestion in the short term and developing policies to ensure that this does not persist in the long term will be key priorities for the recovery.

In the immediate term, we have adapted our delivery programme to respond to the pandemic and support the still relevant aims of the Mayor’s Transport Strategy and reduce the risk of a car-led recovery.

A continued, strengthened approach to mode shift is now required to enable a green, inclusive recovery as well as continuing to address the underlying pre-existing challenges identified in the Mayor’s Transport Strategy.

To support this in the immediate term we need to restore confidence in our public transport network and encourage former customers to return to the network and enjoy the city again.

The Mayor’s Transport Strategy will play a crucial role in delivering London’s green recovery, creating streets which prioritise movement by buses, walking and cycling, as well as supporting freight and other essential journeys.

We need to continue to support directly the delivery of new homes on the land we own across London, and work with

Government to secure the funding for transport infrastructure that can support Good Growth. This includes progressing the planning and development of new transport network connections, to support future homes and jobs growth.

We will make best use of resources through decision making informed by scenario planning and an improved strategic tracker.

Securing stable long-term funding is key to unlocking the vision contained in the Mayor’s Transport Strategy.

About TfL

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport.

We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners' and helping to create a safer, fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made by walking, cycling or using public transport by 2041. To make this a reality, we prioritise sustainability, health and the quality of people's experience in everything we do.

We run most of London's public transport services, including the London Underground, London Buses, the DLR, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport and making more stations step

free, we can make people's lives easier and increase the appeal of sustainable travel over private car use.

We manage the city's red route strategic roads and, through collaboration with the London boroughs, we are helping to shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency, improve air quality, revitalise town centres, boost businesses and connect communities. As part of this, the Ultra Low Emission Zone scheme and more environmentally friendly bus fleets are helping to tackle London's toxic air.

During the coronavirus pandemic we have taken a huge range of measures to ensure the safety of the public. This includes enhanced cleaning using hospital-grade cleaning substances that kill viruses and bacteria on contact, alongside regular cleaning of touch points, such as poles and doors, and introducing more than 1,000 hand sanitiser points across the public transport network.

Working with London's boroughs we have also introduced Streetspace for London, a temporary infrastructure programme providing wider pavements and cycle lanes so people can walk and cycle safely and maintain social distancing.

At the same time, we are constructing many of London's most significant infrastructure projects, using transport to unlock much needed economic growth. We are working with partners on major projects like the extension of the Northern line to Battersea, Barking Riverside and the Bank station upgrade.

Working with Government, we are in the final phases of completing the Elizabeth line which, when open, will add 10 per cent to central London's rail capacity. Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means using data and technology to make services intuitive and easy to use and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income to continually improve transport networks for the people who use them every day. None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services.

By working together, we can create a better city as London recovers from the pandemic and moves forward.

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