

Supplementary Agenda

Meeting: Finance Committee

Date: Wednesday 30 September 2020

Time: 10.00am

Place: Teams Virtual Meeting

Members

Ron Kalifa OBE (Chair)
Ben Story (Vice-Chair)
Heidi Alexander

Prof Greg Clark CBE
Anne McMeel
Dr Nina Skorupska CBE

Government Special Representative

Clare Moriarty

As provided for under section 100B(4)(b) of the Local Government Act 1972, the Chair is of the opinion that the attached papers should be considered as late items as information in relation to them was not available at the time that the agenda and papers were published.

Copies of the papers and any attachments are available on [tfl.gov.uk How We Are Governed](https://tfl.gov.uk/How-We-Are-Governed).

Further Information

If you have questions, would like further information about the meeting or require special facilities please contact: Jackie Gavigan, Secretariat Manager; Telephone: 020 7084 2954; email: v_JackieGavigan@tfl.gov.uk.

For media enquiries please contact the TfL Press Office; telephone: 0343 222 4141; email: PressOffice@tfl.gov.uk

Howard Carter, General Counsel
Tuesday 29 September 2020

**Agenda
Finance Committee
Wednesday 30 September 2020**

7 Update on Funding Negotiations (Pages 1 - 6)

Chief Finance Officer

The Committee is asked to note the paper and the exempt supplemental information on Part 2 of the agenda, and recommend that the Board note the continuing impact of the coronavirus pandemic on TfL's finances and the urgent requirement for Government funding to be agreed as envisaged in the Revised Budget.

8 Comprehensive Spending Review (Pages 7 - 44)

Chief Finance Officer

The Committee is asked to note the Spending Review submission.

15 Exclusion of the Press and Public

The Committee is recommended to agree to exclude the press and public from the meeting, in accordance with paragraphs 3 and 5 of Schedule 12A to the Local Government Act 1972 (as amended), in order to consider the following items of business.

16 Update on Funding Negotiations (Pages 45 - 62)

Exempt supplemental information relating to the item on Part 1 of the agenda.

Finance Committee

Date: 30 September 2020

Item: Update on Funding Negotiations

This paper will be considered in public

1 Summary

- 1.1 This paper sets out the continuing impacts of the coronavirus pandemic on TfL's finances and the need for additional funding as set out in the Revised Budget presented to the Board on 29 July 2020.
- 1.2 The Revised Budget is predicated on a funding package being provided by Government. This paper describes the position with Government and the status of discussions regarding funding support.
- 1.3 There is a paper on part two of the agenda that is exempt and is therefore not for publication to the public or press by virtue of paragraphs 3 and 5 of Schedule 12A of the Local Government Act 1972 in that it contains legally privileged information and information relating to the business affairs of TfL.

2 Recommendations

- 2.1 **The Committee is asked to note the paper and the related paper on Part 2 of the agenda and recommend that the Board:**
 - (a) **note the continuing impact of the coronavirus pandemic on TfL's finances and the urgent requirement for Government funding to be agreed as envisaged in the Revised Budget.**

3 The Coronavirus Pandemic

- 3.1 Since mid-March 2020, when the Government's measures to respond to the coronavirus pandemic were implemented, we have continued to run a transport service so essential journeys can be made across London. We have fully supported the Government's measures encouraging commuters to avoid travelling where possible. As a result, our passenger demand declined steeply, with a 95 per cent reduction in journeys on the tube, and an 85 per cent reduction in journeys on buses. This caused an overall income loss of around 90 per cent including non-passenger incomes.
- 3.2 As a result of this catastrophic fall in revenue, on 14 May 2020, TfL entered into an Extraordinary Funding and Financing Agreement with the Department for Transport (DfT). This agreement provided £1.6bn of funding, including £1.095bn of revenue grant and TfL borrowing of £595m, with the ability to flex

this agreement to £1.9bn in the event of further revenue downsides.

- 3.3 In July 2020, the Board approved a Revised Budget which set out the requirement for a further £2bn of government grant in the second half of 2020/21 and a requirement for £2.9bn of government grant in financial year 2021/22.
- 3.4 Since June 2020, ridership has gradually increased to now 32 per cent of normal demand on the tube and 56 per cent of normal demand on the buses (as at 23 September 2020) due to relaxation of coronavirus measures, but this remains significantly below preceding levels. The Government's latest announced coronavirus measures are anticipated to reduce ridership due to limitations on the ability to return to the workplace. We have utilised all £1.6bn of funding, but as a result of this increased ridership, we have not been required to draw on the additional £300m contingency.
- 3.5 We are now in discussions with Government regarding funding for the second half of the financial year, ahead of the Extraordinary Funding and Financing Agreement expiring on 17 October 2020.

4 Funding Support Discussions

- 4.1 We have been in regular discussions with Government since the coronavirus measures were put in place mid-March 2020. The Government accepts that we will need access to additional resources in order to deliver essential transport services, maintain essential contracts needed to run these services and continue to support the supply chain behind our major investment projects.
- 4.2 TfL has shared a significant amount of information on travel demand to help inform the Government's approach to restart and recovery of the economy, along with information about TfL's cost base and financial arrangements as part of the Government's review into TfL's Finances, being conducted on behalf of the DfT by KPMG (the Government Review).
- 4.3 The remaining gap to balance our Revised Budget for 2020/21 is around £2bn, and TfL is in ongoing discussions around how this should be funded with the DfT.
- 4.4 We are also in discussions with DfT in order to resolve the additional £1.1bn of funding that Crossrail Limited (CRL) have stated they need to complete the project, as this issue was deferred in the first half of the year. This is an becoming increasingly critical issue because, even though the £750m Loan Facility Agreement will not be exhausted in cash terms until March 2021, CRL will soon have committed all of its funds within the current £14.964bn funding envelope. At this point, the project will be no longer be able to make financial commitments and will be forced to shut down. This would have catastrophic consequences for the project's progress, resulting in a significant, and a potentially permanent, loss of critical resources, significant claims and lengthy delays to completion of the project. There will also be additional costs – both of safely decommissioning the project, along with additional prolongation

costs if the project is to be restarted at a later date.

5 Ongoing Reviews

- 5.1 As part of the funding agreement reached with Government, the Mayor and TfL agreed to a broad ranging review of TfL's future financial position and future financial structure being undertaken. As set out in paragraph 4.2, TfL has proactively participated in this review and has shared a significant amount of information with KPMG over the last four months.
- 5.2 The Government Review has included periodic validation of the costs and revenues that underpin the current grant and a detailed assessment of our Revised Budget and has also sought to identify short and medium-term efficiencies that could be introduced, which may inform the terms of further short-term grant funding for the second half of 2020/21 and the subsequent financial year. We understand that the fact finding and draft recommendation stage from KPMG to DfT are largely complete however we have not yet been informed of the conclusions that the Review may have reached.
- 5.3 On 22 July 2020, the Mayor announced that an Independent Panel would also conduct a review to develop options for funding and financing models that would enable TfL to deliver the right services for London in the current challenging financial context, invest in new and existing infrastructure and continue to contribute to London's development and sustainability.
- 5.4 The Independent Panel's work is being carried out in parallel with the Government review of TfL's finances and the Panel continues to prepare its report.

6 Update on the Revised Budget

- 6.1 TfL is required by law to have a balanced budget. We, therefore, prepared the Revised Budget, prioritising what is essential for maintenance of services to support the Government's coronavirus planning and safety related activities, ensuring our employees and contractor staff remain safe. The Revised Budget updated the previously approved Emergency Budget and was intended to support the H2 funding discussions as well as incorporating certain criteria that government mandated upon TfL as part of the H1 funding and financing arrangement, for example, quick return to near normal levels of service operation, earlier resumption of RUC charging and accelerating certain investments focused on safety, active travel and walking and cycling.
- 6.2 The Revised Budget delivers cost savings as compared to TfL's previously approved pre-coronavirus Budget for 2020/21, includes TfL's best estimates of income after considering a range of possible revenue scenarios, as well as modelling our useable reserves. The Revised Budget maintains that we cannot breach our £1.2bn minimum cash balance.

- 6.3 While ridership remains severely below pre-coronavirus demand, we have seen a steady return to the network over the past three periods and have been able to safely manage travel demand, including supporting a successful return to schools. As at P5, total income was £58m ahead of the Revised Budget following the improved ridership volumes, increased congestion charge income as well as extended use of the furlough scheme. Operating costs are also lower despite direct coronavirus related costs being higher than expected.
- 6.4 The Revised Budget presented a funding gap of up to £2bn for the second half of 2020/21, and balancing this budget is predicated on continued Government support. The further restrictions on movement announced by government in September 2020 introduce a higher degree of risk and uncertainty to the level of support required in the second half of 2020/21.

7 Contingency Planning

- 7.1 If the support indicated by Government as being available is not expressly articulated and quantified in the very near term or does not provide confidence that we can meet our statutory obligations to balance the budget in the short to medium term, then we will need to consider alternatives to TfL's current budgetary position, including whether the Chief Finance Officer should consider issuing a report under section 114 of the Local Government Finance Act 1988.
- 7.2 In order to ensure prudent financial management of TfL's finances during this period of negotiation, in advance of certainty regarding Government funding, on 23 September 2020, the Chief Finance Officer introduced stringent measures to control expenditure. These measures, unless otherwise approved by the Financial Commitment Oversight Group (chaired by the Chief Finance Officer), include suspending any new financial commitments, pausing all new non-critical spend and preventing the commencement or continuation of new projects that require longer term funding certainty. This framework ranks expenditure in accordance with the matters set out below, in order of priority:
- (a) maintaining our statutory obligations and meet our existing liabilities;
 - (b) preserving the day-to-day safety of our services;
 - (c) preserving service levels and connectivity for London to support the national coronavirus response and ensure we have our customer base to drive future revenues;
 - (d) continuing to honour the contracts we have for future liabilities;
 - (e) investing to reduce costs or generate revenues which payback within an 18-month time horizon;
 - (f) maintaining TfL's assets to a good state of repair;

- (g) maintaining other assets that support TfL's network, subject to third party funding where appropriate; and
- (h) delivering the wider objectives in the Mayor's Transport Strategy and other Mayoral strategies.

8 Next Steps

- 8.1 TfL is working to urgently resolve the funding gap outlined in paragraph 6.4 with Government and discussions are ongoing and an update will be provided at the meeting.

List of appendices to this report:

Exempt supplementary information is included in a paper on Part 2 of the agenda.

List of Background Papers:

TfL Board: TfL's Revised Budget – 29 July 2020

Contact Officer: Simon Kilonback, Chief Finance Officer
Number: 020 3054 8941
Email: simonkilonback@tfl.gov.uk

[page left intentionally blank]

Finance Committee

Date: 30 September 2020

Item: Comprehensive Spending Review

This paper will be considered in public

1 Summary

- 1.1 TfL's Spending Review Prospectus is being submitted as a late paper, following the formal completion of the GLA's Spending Review submission.
- 1.2 We are progressing our immediate funding request with government, which is to cover the income shortfall set out in the Revised Budget across the remainder of 2020/21 and 2021/22, and secure funding for the completion of Crossrail.
- 1.3 Separately we are also requesting discussions on long-term, sustainable funding mechanisms that can give us, our people and our supply chain the certainty they need to continue the pipeline of work and jobs in London and the UK, supporting recovery from the pandemic.
- 1.4 It is vital we protect mass transit to boost our economy, to make the best use of limited space in cities, and protect our integrated authority which gives the best user experience between all modes, improving efficiency, saving journey time.
- 1.5 We have a big part to play in helping achieve the government's goal of zero carbon transport by 2050 or sooner. A number of our interventions directly progress this, including electrifying our 9000 vehicle bus network and leading the way for the rest of the UK market, whilst preventing a car led recovery and reducing CO2 emissions from transport.
- 1.6 The attached prospectus sets out a long-term vision of what we could deliver with secure, committed funding. To deliver the full package of schemes in the document would require funding of c.£3bn per annum for 10 years. This is a package of investment that would maintain our ageing assets while also adding capacity, accelerate the green recovery and investment in green transport, and at the same time regenerate areas to unlock new homes and jobs.

2 Recommendation

- 2.1 **The Committee is asked to note the Spending Review submission.**

List of appendices to this paper:

Appendix 1: TfL Spending Review Prospectus

List of Background Papers:

None

Contact Officer: Simon Kilonback, Chief Finance Officer
Number: 020 3054 8941
Email: SimonKilonback@tfl.gov.uk

Transport for London

Investment to get London and the UK moving again

Contents

3 Introduction

- 4 Our financial position
- 6 Regenerating the UK economy
- 8 Ensuring a green recovery from the pandemic
- 11 Strengthening the UK's place in the world
- 12 Investing in infrastructure, innovation and people

15 Maintain and stimulate

- 16 Renewing our core assets
- 18 Renewing the road network
- 19 Next generation of rolling stock replacement
- 20 Piccadilly line signalling replacement and Holborn station upgrade
- 21 Higher capacity Jubilee line fleet

22 Adapt and accelerate

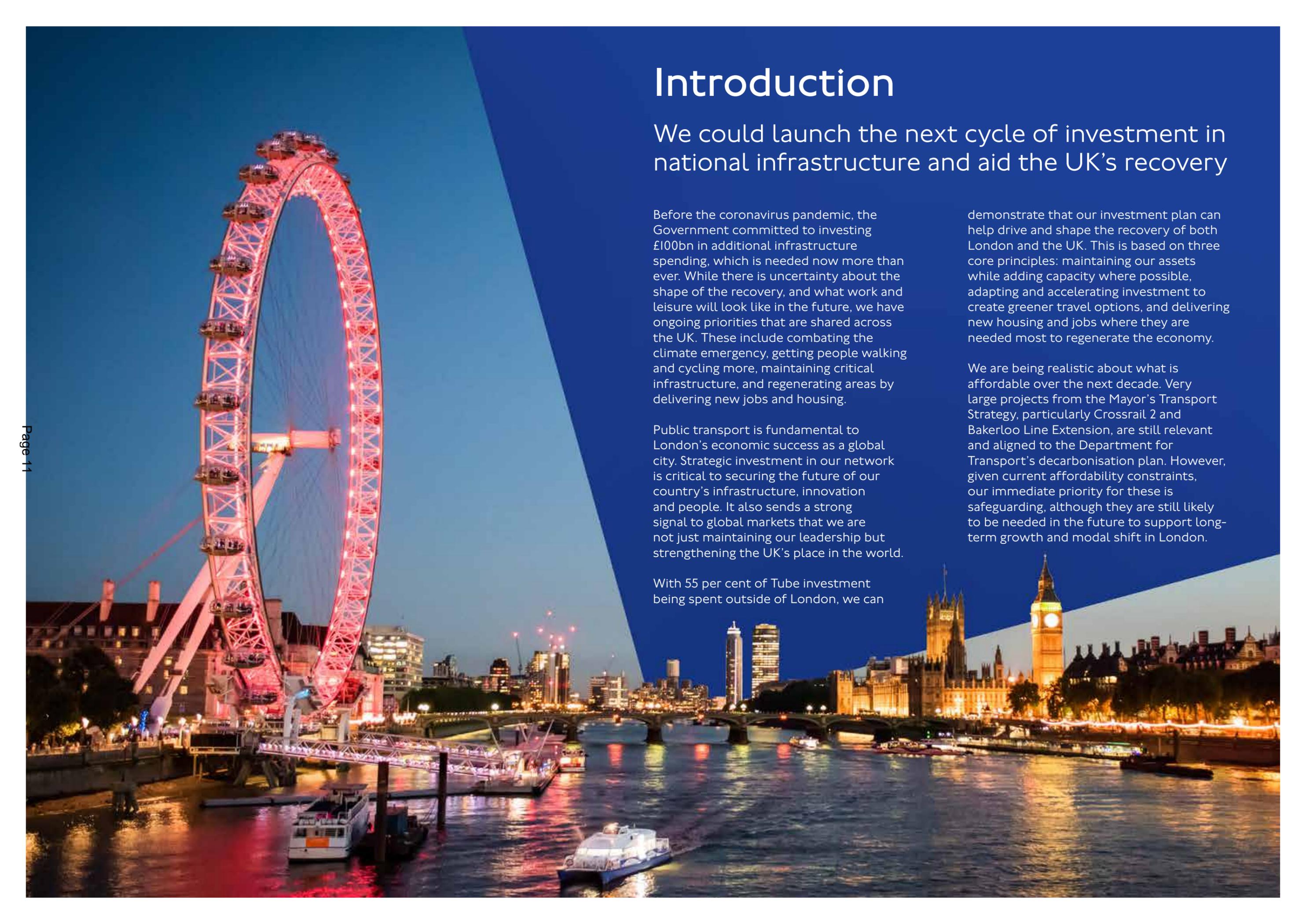
- 23 Sustaining London's bus network
 - 24 Bus electrification by 2030
 - 25 Investing in zero-emission transport and energy
 - 26 Healthy Streets and healthy people
 - 28 Further step-free access programme
-

29 Regenerate

- 30 Increasing frequency on the Elizabeth line
- 31 DLR extension to Thamesmead
- 32 Delivering housing for London
- 33 Camden Town and Northern line separation

34 Unlocking the benefits





Introduction

We could launch the next cycle of investment in national infrastructure and aid the UK's recovery

Before the coronavirus pandemic, the Government committed to investing £100bn in additional infrastructure spending, which is needed now more than ever. While there is uncertainty about the shape of the recovery, and what work and leisure will look like in the future, we have ongoing priorities that are shared across the UK. These include combating the climate emergency, getting people walking and cycling more, maintaining critical infrastructure, and regenerating areas by delivering new jobs and housing.

Public transport is fundamental to London's economic success as a global city. Strategic investment in our network is critical to securing the future of our country's infrastructure, innovation and people. It also sends a strong signal to global markets that we are not just maintaining our leadership but strengthening the UK's place in the world.

With 55 per cent of Tube investment being spent outside of London, we can

demonstrate that our investment plan can help drive and shape the recovery of both London and the UK. This is based on three core principles: maintaining our assets while adding capacity where possible, adapting and accelerating investment to create greener travel options, and delivering new housing and jobs where they are needed most to regenerate the economy.

We are being realistic about what is affordable over the next decade. Very large projects from the Mayor's Transport Strategy, particularly Crossrail 2 and Bakerloo Line Extension, are still relevant and aligned to the Department for Transport's decarbonisation plan. However, given current affordability constraints, our immediate priority for these is safeguarding, although they are still likely to be needed in the future to support long-term growth and modal shift in London.



Page 12

We need long-term financial security to run our vital services

Our financial position

We need funding for our revised budget and discussions on long-term funding mechanisms

Our finances are still uncertain, owing to the ongoing impact of the coronavirus pandemic. As restrictions eased during late summer, we saw passenger numbers reach around 30 per cent of previous levels on the Tube and 50 per cent on the bus network. Our operating income is highly reliant on people using our services, much more so than for other transport authorities around the world. This follows a push to make us more self-sufficient from both central and local Government.

The funding settlement agreed with Government earlier this year enabled us to maintain our statutory obligation to balance our budget, preserve our liquidity, and keep our assets safe and operable. It also enabled us to play our part in London and the UK's immediate response to coronavirus, by progressing schemes focused on safety, active travel and those that enable social distancing.

The Department for Transport and KPMG, and the Mayor's independent panel, are conducting reviews that will help inform decision-making about future funding and investment in London's transport in the medium and long-term.

In the shorter-term, we are asking for £4.9bn to take us to the end of 2021/22, which will enable us to successfully achieve everything set out in our revised budget. Crossrail also needs £750m of additional funding to complete this crucial project as soon as possible, following delays suffered as a result of the pandemic. This is the bare minimum we need in order to secure London's recovery.

Long-term funding

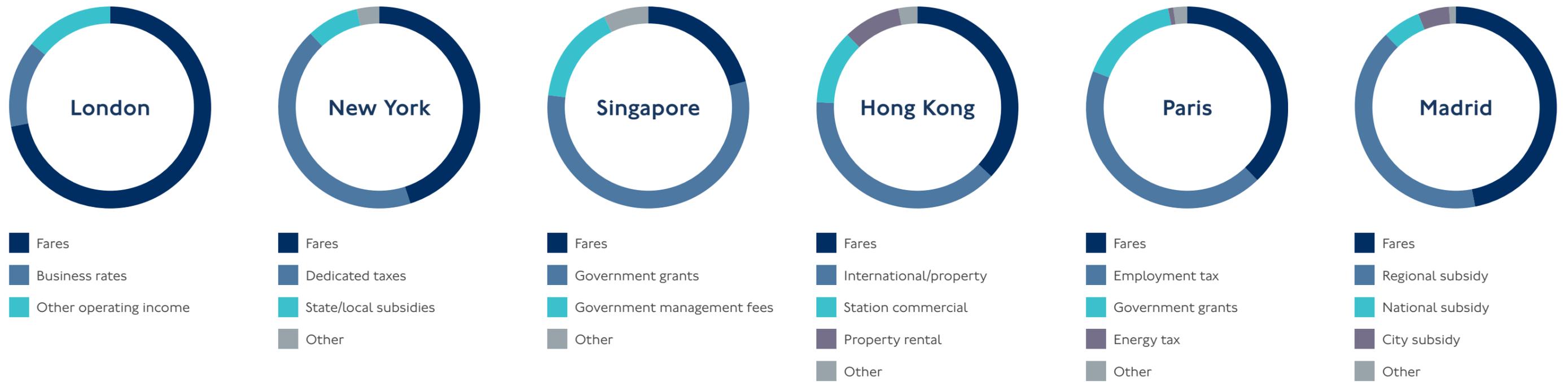
We would also like a commitment to discuss long-term, sustainable funding mechanisms that can secure the investment London's people, businesses and infrastructure need. The scale of our asset base means we need long-term funding certainty to commit to the major investment that is needed.

This document outlines our view of the long-term investment programme, with an annual funding gap of around £2bn per annum, subject to the funding discussions we want to have once the immediate negotiations have concluded. This is a holistic package of investment that outlines our overall approach – investing in multiple areas to ensure we can simultaneously maintain, adapt and regenerate our transport network.

Proportion of operating income that comes from fares across global cities

Around 70 per cent of our income to operate the network comes from fares. This is relatively high compared to other cities and means that our financial model was not built to withstand the impact of the pandemic. London is one of the only major cities in Europe without a Government grant to cover day-to-day operations.

Page 13



The removal of our operating grant has been covered by a higher reliance on fares. Retained business rates are the second highest income source – although as growth in rates is not retained, this is not full devolution.

The Metropolitan Transportation Authority has a reasonably high reliance on fares, but crucially gets more than a third of its income from dedicated taxation sources, including property taxes within New York.

The Land Transport Authority plans, builds and maintains Singapore’s transport infrastructure. The majority of funding comes from Government grants and various management fees.

The Mass Transit Railway’s ‘Rail and Property’ model uses Government-granted development rights in exchange for land premium created by its schemes. It can then reinvest the development profits back into transport.

Île-de-France Mobilités controls and coordinates public transport operators in the Paris area. A significant proportion of public transport funding comes from a dedicated employment tax.

Consortio Regional de Transportes de Madrid’s responsibilities cover the provision of public transport services to the residents of the entire Madrid region and associated municipalities.

Regenerating the UK economy

Our network provides mobility for all, efficient journeys and use of resources, and unlocks housing and growth

Before the pandemic, London's public transport network supported 30 million journeys a day, the same as the country's rail and bus services combined, while progressing with an ambitious plan to make our integrated services more accessible, more efficient and more sustainable.

As an integrated transport authority, we can prioritise and operate strategically across transport modes for the whole of London, while taking accountability for wider outcomes.

Building on our achievements

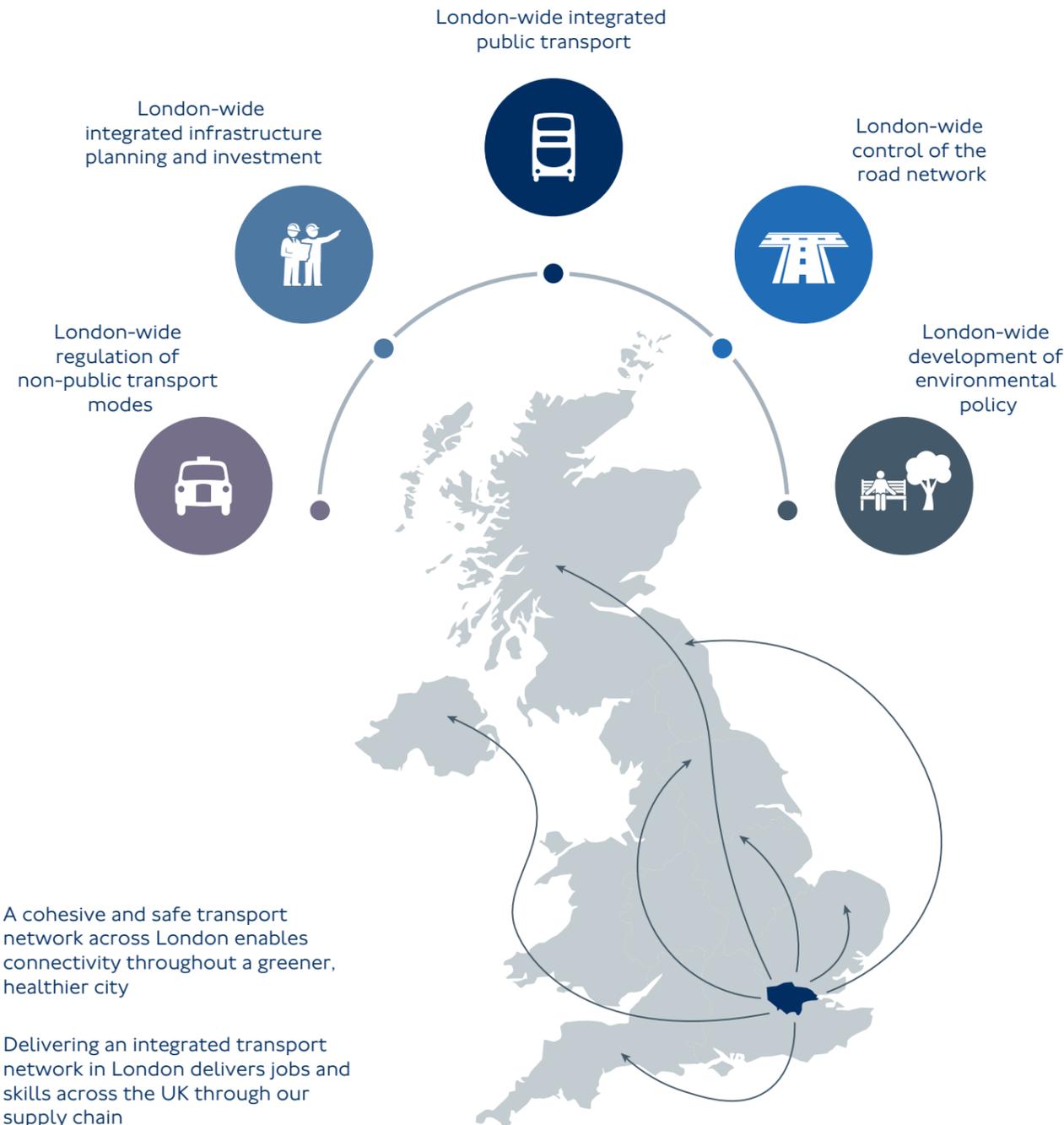
Since our inception as an integrated transport authority 20 years ago, we have synergised day-to-day operations, capital delivery and spatial planning. This has enabled us to drive efficiencies and collaboration across 32 local authorities and the City of London.

We have modernised vast areas of the Victorian Tube network to make services more frequent and reliable, created the London Overground, and improved and expanded the DLR, trams, bus and cycle networks. We have implemented road user charging schemes that have enabled us to manage congestion on the road network and dramatically slash carbon dioxide emissions. We were world leading

in introducing Oyster and contactless payment systems and in opening our data feeds to developers, which in turn has generated hundreds of travel apps. All of this provides what many now expect when they travel in the Capital – a safe, reliable and fully integrated transport experience.

As restrictions change and people are able to travel more, we have an opportunity to adapt the network to make walking, cycling and public transport the most attractive options to avoid a car-led recovery. In addition to supporting healthier outcomes, this will make our roads safer, less congested and enable us to continue to cut emissions towards our national targets. This will also enable us to fully realise the investment in schemes already under way, including larger schemes, such as Crossrail and the signalling modernisation of the Circle, District, Hammersmith & City and Metropolitan lines. This is an enormous challenge that we cannot achieve alone. However, we are already seeing alarming indications that we may be experiencing a car-led recovery. This will be the first year since 1993 that the share of car trips has increased in London.

Our role as an integrated transport authority is an enabler of wider Government policy



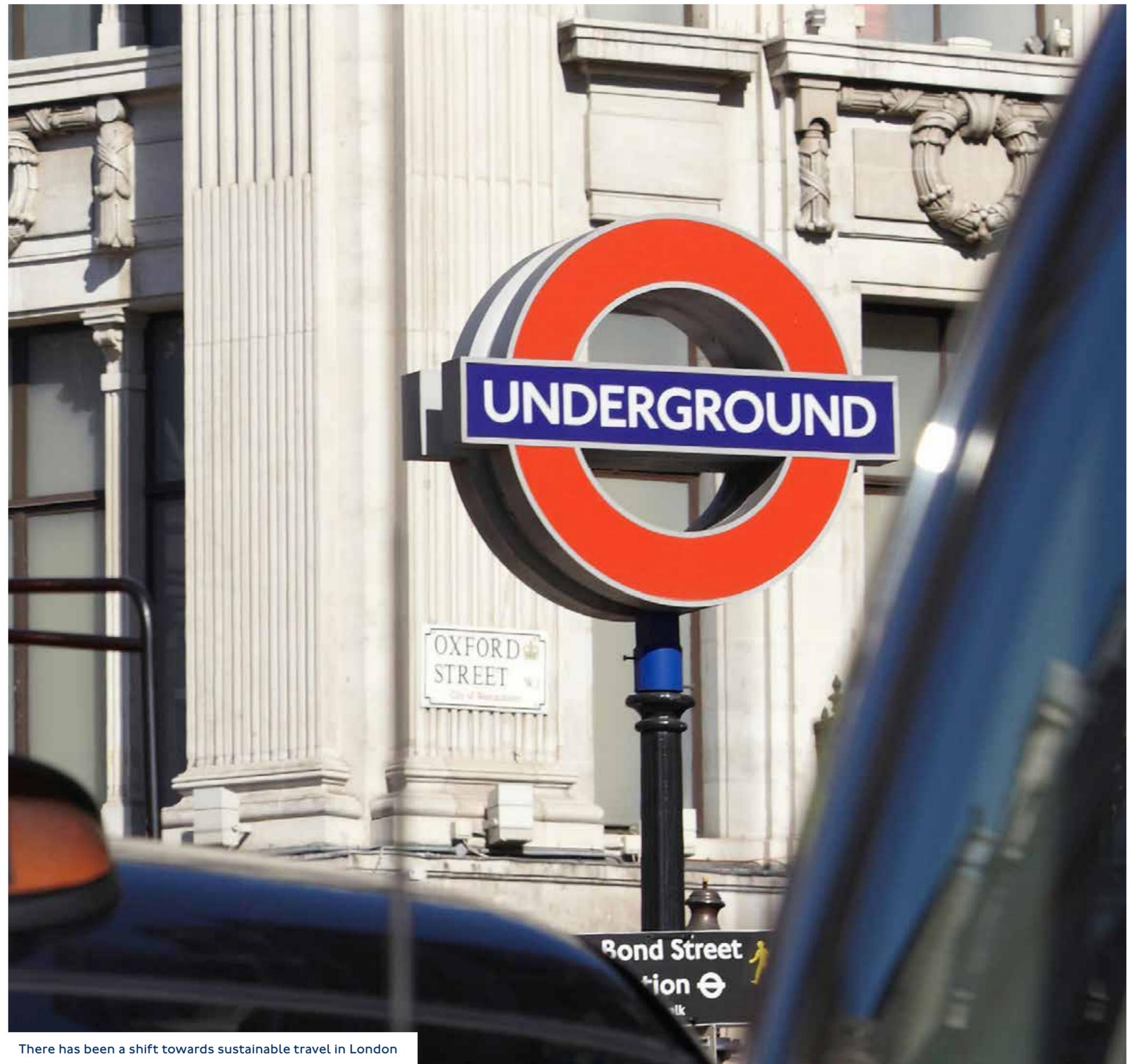
A cohesive and safe transport network across London enables connectivity throughout a greener, healthier city

Delivering an integrated transport network in London delivers jobs and skills across the UK through our supply chain

Efficient public transport

Over the course of the last 20 years, investment in public transport in London has resulted in a significant shift towards more sustainable travel, with the number of trips made by walking, cycling or public transport rising from 52 per cent in 2000 to 63 per cent just before the pandemic. This shift in travel behaviour has kept London liveable despite its rapid growth, and the continued shift towards more efficient modes of transport is essential if the city is to continue contributing to a productive UK economy.

If this shift had not taken place, and the city had grown at the same rate over the period, then London's transport CO₂ emissions would be around a million tonnes higher per year than they are.



There has been a shift towards sustainable travel in London



We are working to make it safer and easier to walk and cycle

Ensuring a green recovery from the pandemic

We have a unique opportunity to support the Government's carbon ambitions

As part of London's response to the pandemic, we have a unique opportunity to shape a green recovery. We want to be able to help the Government show the world that the UK is delivering a world-leading, low-carbon transport system.

Ahead of the UN Climate Change Conference of the Parties, where the Government will want to demonstrate the UK's international leadership, our vision for London is to create a zero-carbon global city, where a sustainable transport network supports a healthy and invigorated Capital with opportunity for all. This vision builds on the Mayor's Transport Strategy, which sets the ambitious goal of 80 per cent of all trips being made on foot, by bike or by public transport by 2041. The Mayor's Transport Strategy is still highly relevant and is well aligned to the new Department for Transport's Decarbonisation plan. The Mayor has ambitions to accelerate this trajectory and make London a net-zero city by 2030.

The risk of injury has increased during the pandemic, as average speeds on our roads have gone up. This is another reason why we must make every effort to avoid a car-led recovery. We can achieve a green recovery by accelerating investment in sustainable transport options that improve people's health, foster an inclusive city that is better connected with strong communities, and by addressing the climate

emergency challenges and supporting a green economy. Above all, investment in public transport and active travel can help avoid a car-led recovery, would lead to increased congestion and worsening health outcomes from poor air quality and a less active population.

Delivering a green recovery in the long term requires a step-change in investment, including in public transport, to give customers an alternative choice to cars.

Healthy and inclusive city

We will continue to invest in Healthy Streets and the Streetspace for London plan to support more walking, cycling and use of buses. We will also continue to address issues of poor air quality, including by expanding the Ultra Low Emission Zone, and intensify our activity around our Vision Zero ambition to make our roads safer. These investments will ensure London remains an attractive city to live, work, visit and do business in.

Climate emergency

There is an increased threat to our city from the climate emergency and we will work to decarbonise our transport and operations, playing a significant role in supporting the Department for Transport's goal for a zero-carbon transport network by 2050, as well as increasing London's adaptation and resilience to climate change.

Green economy

London already supports a vibrant green economy and we want to help grow this by providing sustainable transport options, which will attract new green businesses to the city and support the creation of new green jobs throughout the UK.

Supporting low-emission lifestyles

The pandemic has led people to re-discover their local neighbourhoods. We want to build on this by fostering a city that enables people and communities to thrive by supporting sustainable access to town centres and high streets, as well as a prosperous central London.

We are already demonstrating leadership in delivering a safe, green recovery from the coronavirus pandemic across London. For example, the Streetspace for London plan, which we developed with the Government and London boroughs, has rapidly adapted our streets and public transport system to respond to the immediate challenge. The plan will also support London's long-term sustainable recovery, avoiding the damaging impacts of a car-led recovery on our economy, communities, inclusion, health, safety and environment.

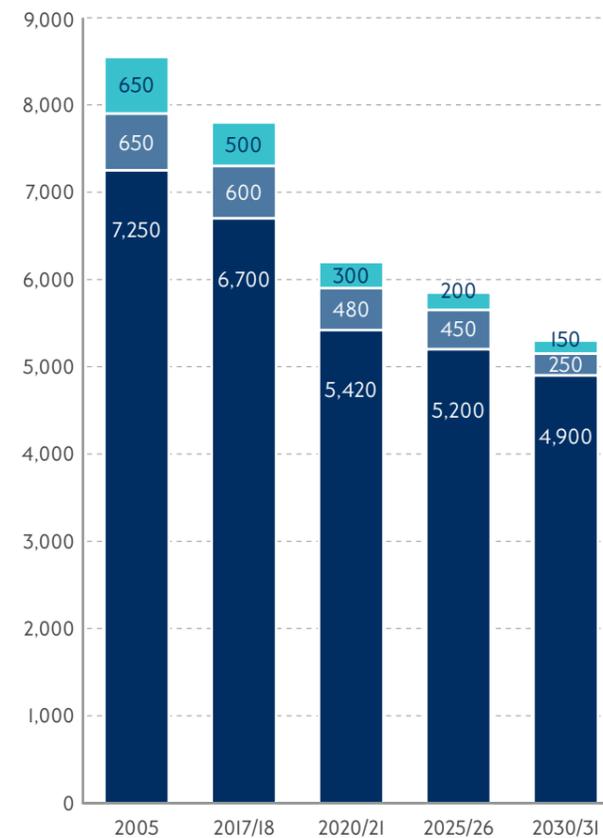
We have introduced new temporary cycle lanes on some of London's busiest streets to encourage more cycling, including Park Lane and Euston Road. The financial benefits of continuing to invest in this area

are compelling, with cycling contributing more than £5.4bn to the UK economy each year, along with significant savings to the NHS from a healthier, more active population. We are also making widespread improvements for pedestrians, creating wider footways and encouraging more people to walk to work and school. These temporary measures have been introduced to provide more space for people to safely walk and cycle, while at the same time maintaining social distancing.

The delivery of Low Traffic Neighbourhoods and School Streets across London is beginning to take shape, helping to reduce the impact of traffic, improve air quality and encourage safe and more active travel. We have introduced a number of urgent and temporary corridors in central London to create bus, walking and permitted traffic only roads, including the A10 at Bishopsgate between Shoreditch and London Bridge.

We also have plans to expand the Ultra Low Emission Zone. In October 2021, the current boundary will be extended to create a larger zone, bounded by the North and South Circular Roads. Any petrol or diesel vehicle being driven within this area will need to meet the tighter emissions standards or pay a daily charge.

CO₂ emissions from transport in London



- Private vehicles
- London Buses
- London Underground, Rail, Buildings, Infrastructure, Head offices

While emissions in London are dominated by private vehicles, we must continue to play our part and to support the Government's vision.

60km

of new or upgraded cycle infrastructure that is complete or under construction



20,000

sqm of highway has been reallocated to pedestrians across 34 sites

594

Low Traffic Neighbourhoods and School Street schemes have been awarded funding



44%

reduction in nitrogen dioxide concentrations in central London since February 2017

Achieving the vision

There are four pillars to our integrated approach to a green recovery, as outlined on the previous two pages. We have three strands of action that support these pillars, and each of the projects within these will be designed with a green recovery in mind.

This approach will maximise the benefits that can be unlocked from each project and, in turn, improve the returns on Government investment.



Strengthening the UK's place in the world

Our projects ensure that London is able to support the whole country's recovery from the pandemic

Maintain and stimulate

We must be a good custodian of tax payer investment to get the most from our assets.

There is an ongoing cost to keep the network at the current level of reliability, safety and general asset condition. Without this investment, the condition of the network moves backwards, costs increase, reliability declines and, as we will never compromise on safety, closures to essential assets become necessary. These are not hypothetical situations. The aging Piccadilly line fleet has become increasingly unreliable and the Rotherhithe Tunnel has more vehicle restrictions, which curbs commercial activity in London.

Sustained investment in the network is needed to prevent people choosing the privacy and flexibility of their cars. Only by maintaining capacity, frequency and reliability, can we hope to restore confidence in public transport and ensure people continue to choose it for the majority of journeys in the Capital.

Adapt and accelerate

We must provide opportunities for people to travel differently and transition to a zero-emission network as quickly as possible.

Despite an uncertain future, we need to address the challenges that existed before the pandemic. We need to invest now to secure the recovery and the future priorities we share for London and the UK. This includes investing in London's green transport to accelerate the transition to a UK-wide green economy.

We must continue to invest in active travel options for the health and wellbeing of Londoners. We must also continue to invest in a more accessible, inclusive transport network to provide alternatives to a car-led recovery.

We continue to have a key role in enabling housing development, including on our own property and through matched funding for transport enhancements with both developers and boroughs.

Regenerate

We need to plan now for the longer-term transport enhancements London needs.

This will enable us to prepare for a period of regeneration after the pandemic, supporting the recovery across the UK.

While there is uncertainty about how London will change and it may be difficult to make final decisions on schemes at this stage, public transport will remain vital in supporting economic growth.

Throughout this document all costs are listed at constant prices. Costs are best current estimates and are subject to change as projects develop.



Investing in infrastructure, innovation and people

Adapting our investment to deliver schemes that regenerate the economy, support UK suppliers and encourage low-emission lifestyles

We must continue to deliver these environmental and economic benefits, but it is entirely dependent on secure, long-term funding that enables us to commit to the next generation of improvements to London's transport network.

An investment in London is an investment that will benefit the whole of the UK.

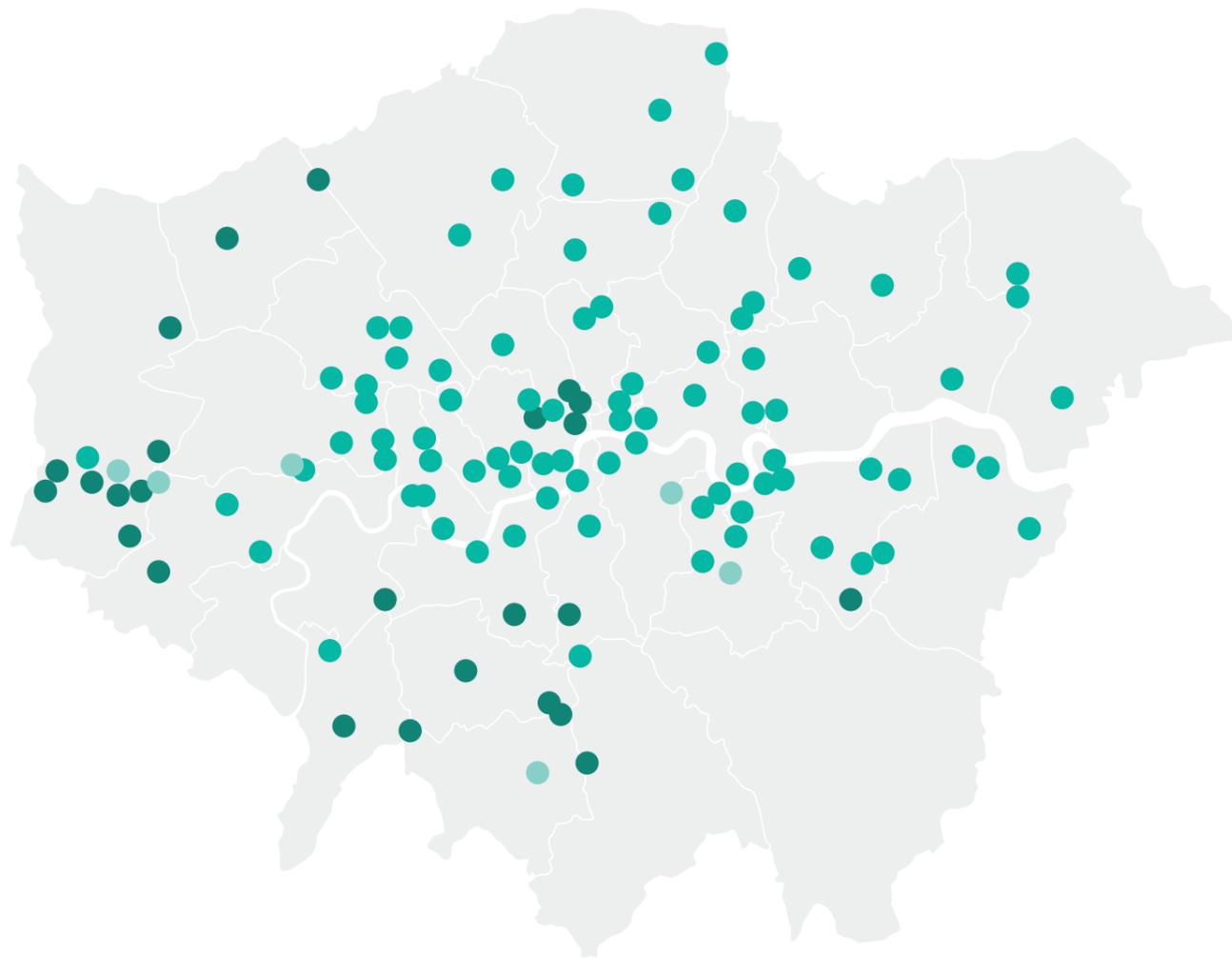
Zero-carbon economy

We have seen new ways of working that could be accelerated to enable the country to transition to a zero-carbon economy. If we can do this successfully, it would boost the economy, create more jobs and help achieve national targets on the environment and equality. Our ambition is to make our public transport services net-zero carbon as soon as possible, and accelerating the electrification of our bus fleet is key to achieving this. Across

London, we saw significant reductions in CO₂ in the first half of this year as people changed their travel behaviours – we now need to invest in our network to make long-lasting environmental improvements. We also need to adapt to the way we do things. This is why we are transitioning our energy supplies to renewable sources and delivering on new electric buses, both of which drive investment across the UK.

We also saw significant reductions in NO₂ levels in the first half of 2020, as shown in the map on page 13, owing to widespread changes in travel behaviour. This builds on the significant reductions in air pollution already delivered by the central London Ultra Low Emission Zone, and cleaner buses and taxis.

**Reduction in nitrogen dioxide concentration levels in London
July 2020 compared to January 2020**



- >25%
- 25-10%
- 10-5%

Job protection and creation

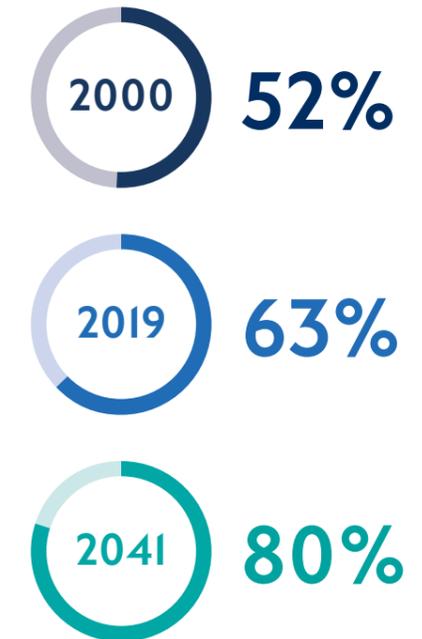
By accelerating investment in the decarbonisation of our network and renewable energy solutions, we will create thousands more jobs and produce innovative solutions, attracting international investment.

A healthy and adaptable Capital

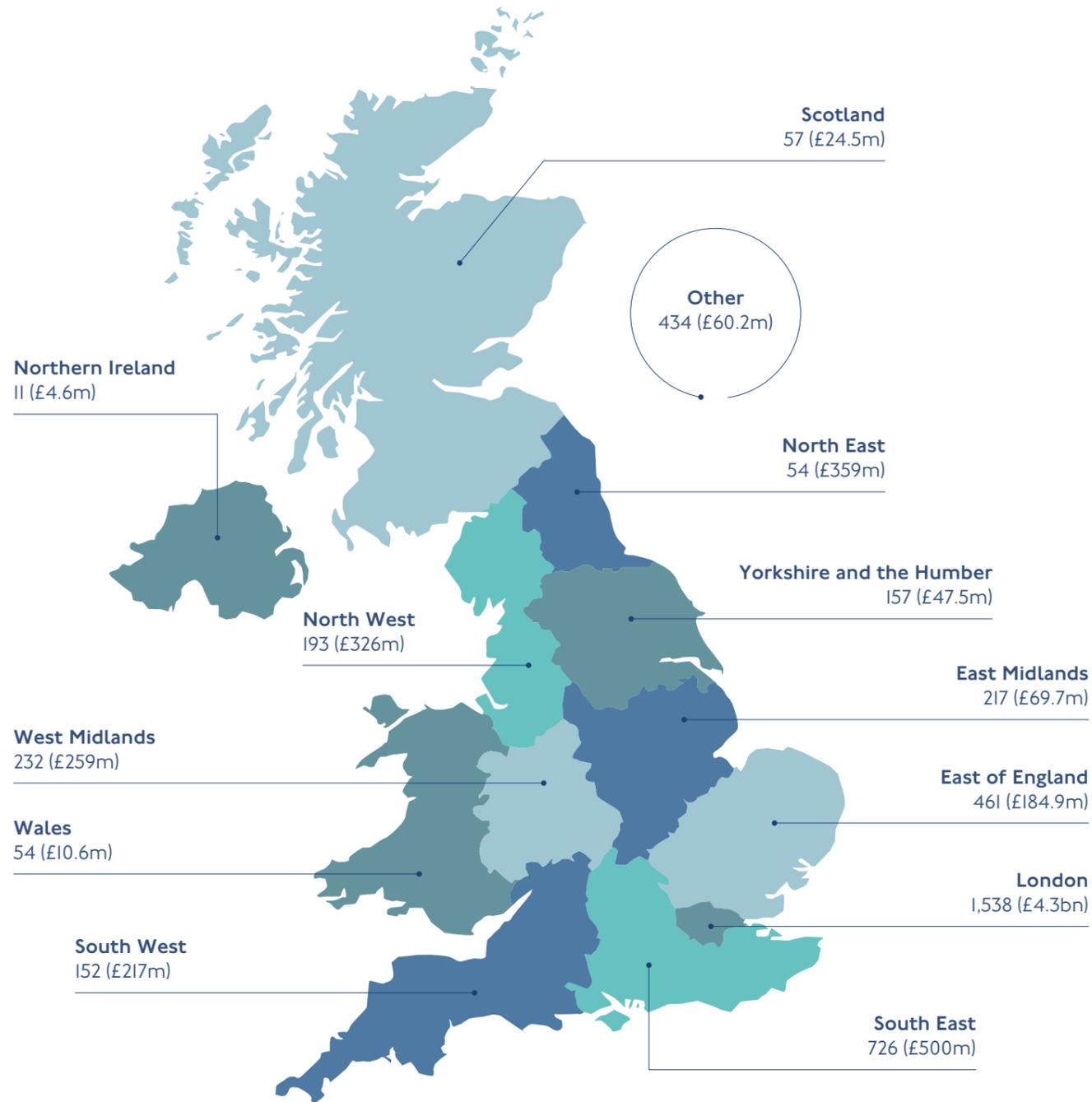
To keep London moving, attractive and resilient to climate changes and future shocks in our economy, we must maintain our existing infrastructure. Relatively small investments can unlock substantial new capacity. Compared to 2001, we carry 49 per cent more people on the Tube and 57 per cent more on buses. We want to continue smart investment that maintains this shift to walking, cycling and the use of public transport from 63 per cent today to 80 per cent by 2041.

We must get people back to work, but we must do this in a way that supports the environment and health of our customers. It is also vital that we support the economic engine of London's Central Activity Zone.

Percentage of journeys made by sustainable modes with continued investment levels



**Regional economic benefits from our supply chain
(Spend and number of businesses by region)***

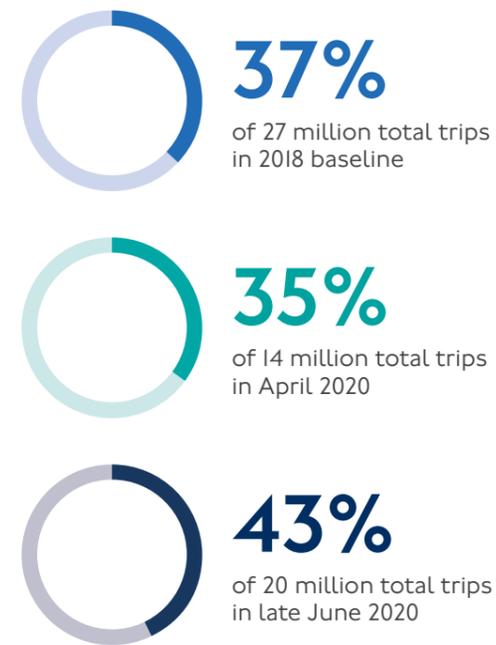


* Our third-party spend for 2019/20

Avoiding a car-led recovery

With targeted investments to maintain and adapt our assets and accelerating key schemes, we can prevent a car-led recovery. Investment in public transport, walking and cycling will be key. The amount of private trips, as a percentage of total trips, has increased during the pandemic.

Percentage of journeys made by sustainable modes with continued investment levels



We have already launched the Streetspace for London plan in response to the pandemic and intend to adapt and accelerate these green changes if funding can be secured.

We need to avoid our city becoming clogged with cars, which would make it less healthy for people, less safe and less efficient to move around. We are primed to pivot our investment towards a green recovery, supporting green jobs, and the UK's reputation as a leader in the environmental agenda.

43,000

people directly employed by the London Underground Investment Programme



68%

of the 43,000 jobs stated above are outside of London

55p

from every £1 spent on the London Underground investment programme goes to workers outside London





Maintain and stimulate

Without replacing assets and ongoing renewals, some services will quickly become unreliable and we can expect some essential assets to stop functioning

Renewing our core assets

Our long-term capital plan prioritises asset renewals, targeting replacements at the end of design life. Maintaining our assets is the bedrock of our continued safe and reliable operation. They are not discretionary and, while they vary in flexibility, we need a steady run-rate to maintain their condition and minimise costs over their lifespan.

Our optimal asset baseline ensures current levels of safety, performance and condition, as well as meeting our legal and Government obligations. This does not include enhancements, except replacing assets, such as rolling stock, with more modern options.

Importantly, maintaining current levels of safety, performance and condition is not sustainable in the long term. Our stations and trains may not remain fit for purpose, owing to increased demand and crowding as we support a green recovery from the pandemic. Technological advances also mean the assets we have now might not be the right ones for the future.

Page 24



Rolling stock – £515m pa

Our train fleets across the Tube, DLR, London Overground and Elizabeth line

We must replace our fleets as they approach the end of their design life, which is around every 40 years, while maintaining and renewing them throughout to maintain safety and reliability.



Track – £200m pa

Enabling the movement of rolling stock in a safe and reliable way across around 1,050km of track

We maintain today's level of performance by delivering a programme of track inspection, maintenance and renewals. We must replace less reliable forms of rail with modern, more reliable equivalents on a prioritised basis.



Power, cooling and energy – £80m pa

Controlling traction power supply, heat mitigation assets, and energy initiatives, such as solar panels and LEDs

We maintain the condition of power and cooling assets to support a safe and operable network. This includes delivering power upgrades to enable frequency improvements and initiatives to reduce the environmental impact of our network.



Signalling – £105m pa

The assets and software that control train movement on the Underground

We need to extend the life of these assets on the Bakerloo and Piccadilly lines, and manage obsolescence and upgrade existing digitally signalled lines.



Lifts and escalators – £50m pa

We maintain 442 escalators, four conveyors and 242 lifts across the network

We proactively maintain and renew these assets as part of a risk-based programme designed to ensure high levels of reliability.



Stations and building systems – £75m pa

This includes all assets within stations, including the structures themselves

We maintain station condition and renew key assets within our 270 stations to enhance customer experience and maintain effective operations.

Tube structures – £20m pa



These include our bridges, earth structures and lineside buildings

We maintain safe structures and conduct regular inspections. We improve the condition of these structures and strengthen them when required. These structures have long lifespans, but we must plan for significant expenditure towards the end of these.

Technology – £175m pa



This includes traffic management, compliance systems, CCTV, operationally critical radio and transmission services

We must keep our key operational systems going and replace them with modern equivalents when necessary. We drive consolidation and core system alignment wherever possible.

Other highway assets – £65m pa



These are our carriage and footways, signals and other highway assets, such as streetlights, trees, and safety cameras

We must proactively maintain these assets according to their varying lives, which can be between five and 40 years. The condition of the assets and cost of materials will determine the specific interventions needed.

Other public transport assets – £90m pa



This includes bus, coach, rail and river assets, as well as renewals across the Emirates Air Line, Santander Cycles and the Woolwich Ferry

We maintain and renew these assets, then replace them when they are at the end of their useful life, according to whole-life cost principles. We must establish a consistent standard of operation across these assets.

Engineering vehicles – £35m pa



The vehicles we use to inspect, maintain and repair our assets

This involves replacing our life-expired engineering vehicles.

Major highway structures – £70m pa



This includes our bridges and tunnels, such as Westway, Blackwall Tunnel and Vauxhall Bridge

We conduct major works on bridges and tunnels to keep them safe, reliable and operable. There are around 26 assets likely to need repair over the next 25 years.

Renewing the road network for freight

Businesses across the UK rely on our road network for access to London's consumers, with 90 per cent of all freight transported by road. This means congested roads are a major barrier to economic recovery. A lack of long-term certainty of sustained funding for London's roads has led to a deterioration in many assets. Without preventative maintenance measures, we have had to introduce speed and weight restrictions and, in some cases, closures. Congestion in London now loses the economy £5.5bn per year and drivers in the Capital lose more than 200 hours per year stuck in traffic.

If defects are not addressed, they will become safety critical and cause short notice closures for extended periods until repairs can be done, as happened recently with Hammersmith Bridge, which is also a key link for walking, cycling and buses. We need a separate funding stream to renew London's bridges to prevent this from happening elsewhere.

A £2bn investment between now and 2030 would enable us to renew key road assets, remove current restrictions and prevent further restrictions and closures, and immediately begin work on several high priority projects, including:

Rotherhithe Tunnel

We could remove the need for several thousand small and medium-sized vans to make a 30- to 60-minute detour each day to avoid the tunnel.

A40 Westway

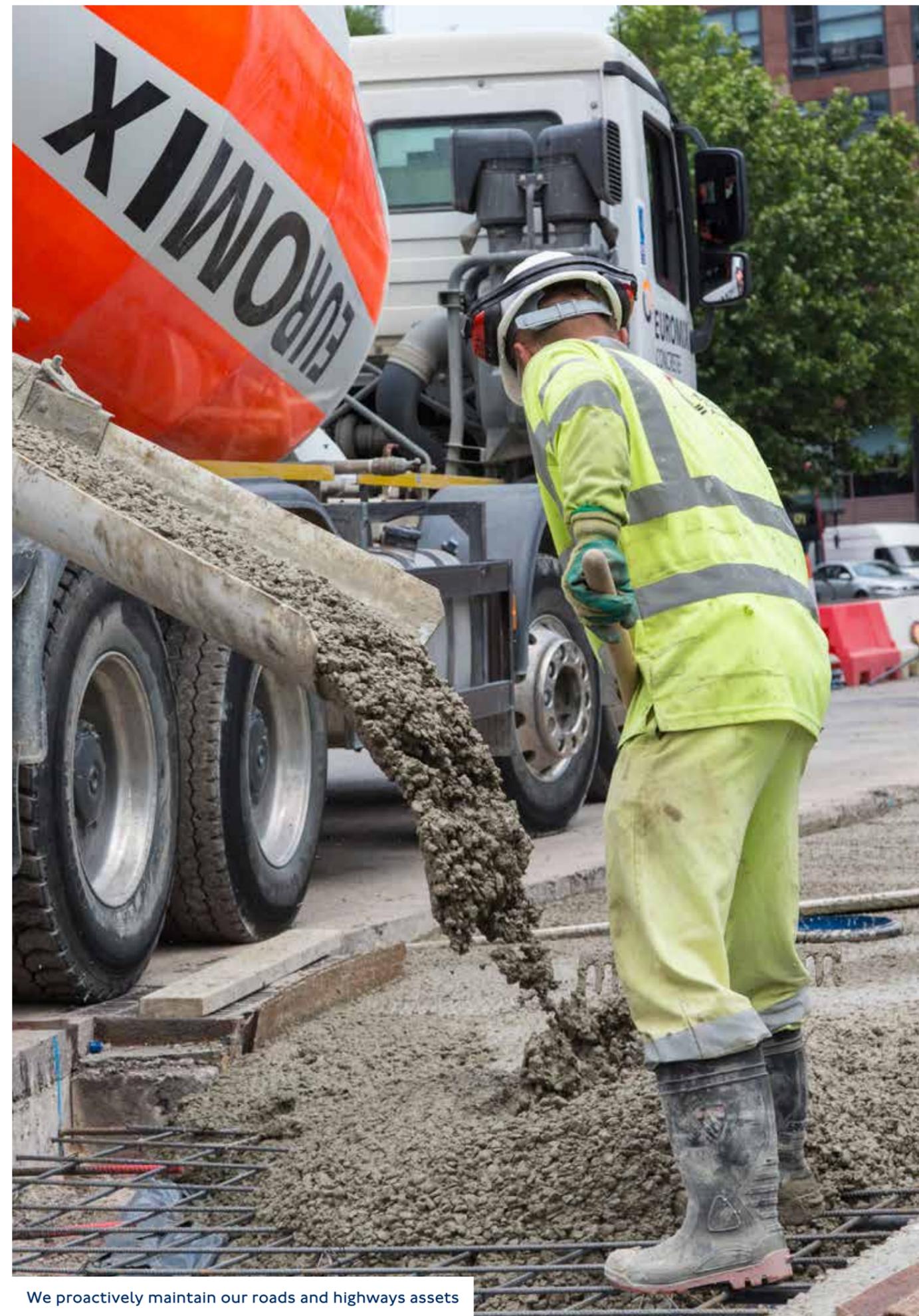
We could prevent unplanned closures and speed restrictions caused by the poor condition of the road and failure of large expansion joints.

Gallows Corner Flyover

This would prevent unplanned closure due to safety defects and fatigue cracking, and remove existing weight and speed restrictions.

By investing in new technology to support how people are using our roads differently, such as through increased home shopping deliveries and more walking, cycling and bus travel, we could serve as a test bed for innovation that could benefit the whole of the UK.

With £500m of investment, our Surface Intelligent Transport Systems programme could deliver more than £1bn in benefits in London alone by reducing delays and improving journey time reliability for road users. These innovative systems use artificial intelligence to manage unplanned events on our roads, enable changes in user requirements and support new forms of transport such as e-scooters. This technology could be developed in conjunction with other metropolitan areas, benefiting the wider UK while opening up the possibility of marketing overseas.



We proactively maintain our roads and highways assets



Investing in rolling stock will make our services more reliable

Next generation of rolling stock replacement

The Underground currently requires more than 600 trains to operate, and these trains have a design life of around 40 years. This means we need, on average, a new Tube train every three to four weeks to avoid the condition of the fleet deteriorating. Failing to replace trains that have reached the end of their life causes declining reliability and customer service, as well as creating a backlog of investment that will have to be caught up with later. Our two least reliable fleets are those running on the Bakerloo and Central lines.

Our Bakerloo line trains entered service almost 50 years ago. We have invested in life-extending work to keep this fleet safe and operational, but they must soon be replaced. The Central line is the second busiest Tube line but suffers from poorer reliability and a worse customer experience than others. These trains are 30 years old and we should start preparing to replace them to improve the service.

Siemens are building a new factory in Goole in Yorkshire to manufacture the next generation of Tube trains – with improved energy efficiency to reduce our carbon impact, walk-through carriages, air conditioning, better accessibility and many other features to improve their performance and the environment for customers. We have options built into our contract with Siemens to continue the rollout of new trains, but activating these require funding certainty. This certainty would enable us to commit to an efficient profile of continuous train rollout once the Piccadilly line fleet order is complete, stimulating the UK’s manufacturing industry and ensuring the continued reliability and modernisation of the Tube.

£ Next generation of rolling stock replacement. Cost: **£1-£2bn**

Bakerloo line

📅 Delivery schedule: **Late 2020s**

🚆 Trains per hour today: **22**
Future: **25**

🚆 Fleet age: **48 years**

Central line

📅 Delivery schedule: **Late 2020s**

🚆 Trains per hour today: **~28**
Future: **30 (without new signalling)**

🚆 Fleet age: **28 years**

Benefits:

Restores reliability, improves customer experience, and with sufficient funding and other investment could enable capacity increases of 20 to 40 per cent.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK’s economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Improving the management and delivery of our commitments ✓

Piccadilly line signalling replacement and Holborn station upgrade

The Piccadilly line provides vital connectivity from Europe's busiest airport to central London and the West End, and connects growing suburbs and opportunity areas across north and west London to major employment districts. Replacing its ageing infrastructure would reduce maintenance and renewal costs and improve the energy efficiency of the service, while a higher-frequency service would enable us to make more effective use of our assets and unlock significant wider economic benefits. Further deep Tube lines will need similar works in the future and committing to this project could prime the market for these and enable greater efficiencies.

We have been able to fund the Piccadilly line fleet replacement but cannot commit to the signalling, which would create the largest increase in capacity. Replacing the signalling to increase the frequency of services would also make the upgrade of Holborn station vital, as overcrowding already forces it to close on a regular basis.

Ten per cent of inner London's population growth in the next 20 years is forecast to be within one kilometre of the Piccadilly line. This line is already extremely crowded and will remain so without further interventions. The resignalling project will increase capacity by 33 per cent and enable us to reorganise services to Ealing Broadway and run more District line trains to Richmond and Wimbledon. This would create space for more people to travel across four different branches in west London, enabling low-carbon journeys from the significant housing developments

planned across this huge area. These wide-ranging benefits mean the overall project has a benefit-cost ratio of 9:1, offering exceptional value for money.

This project will have wider economic benefits, by providing better access to productive jobs and stimulating new development across London. These wider economic benefits, which are not included here, have been quantified at £140m per year in 2041 and rising after this. The project will require more trains to be built, supporting the viability of the Siemens factory being built at Goole in Yorkshire.

Investment can start in 2020/21, by preparing the design for Holborn station and procuring the new signalling system.

Potential milestones during this parliamentary term include signing the Piccadilly line and Holborn station contracts, with work starting on the station. Enabling work could also start on the signalling replacement.

How this aligns with Comprehensive Spending Review objectives

Strengthening the UK's economic recovery from coronavirus	✓
Levelling up economic opportunity	✓
Improving the management and delivery of our commitments	✓

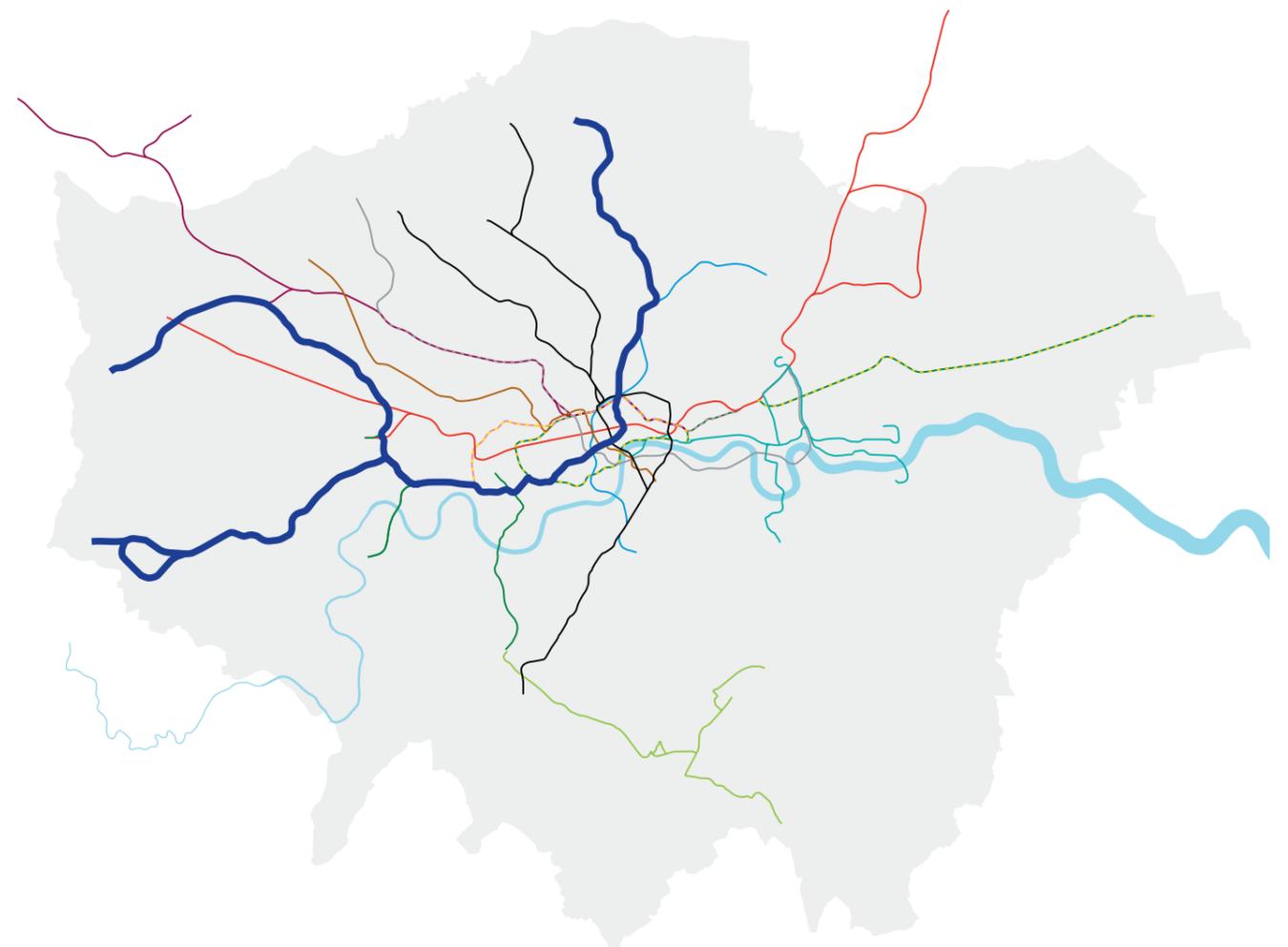
Cost: **£2.5bn** Revenue uplift: **£40m** per annum by 2041

Delivery schedule: **2021-30**

Trains per hour today: **24** Future: **36**

Benefits:

Unlocks 30 per cent additional capacity – 13,500 extra people per hour. This is on top of around an extra 20 per cent that the new trains already unlock. Enables more than 20,000 homes to be delivered.



- Bakerloo line
- Hammersmith & City line
- Piccadilly line
- Central line
- Jubilee line
- Victoria line
- Circle line
- Metropolitan line
- DLR
- District line
- Northern line
- London Trams

Higher capacity Jubilee line fleet

A number of recent issues with Jubilee line trains have highlighted the significance to business of this line. It serves key growth areas for jobs and housing, including Canary Wharf, Canada Water, Stratford, North Greenwich and Canning Town, and it already suffers from critical crowding issues. Addressing the overcrowding issues is essential to realise the full potential of these areas to become hubs for highly productive jobs.

There are various options to enhance capacity on this line. The most transformative would involve buying 73 new, higher-capacity trains to increase capacity by 25 per cent, equating to 14,000 extra people per hour. This would have a secondary benefit of freeing up the current Jubilee line fleet to be used on the Northern line, enabling more trains to operate to other key development areas including Euston, Colindale, Brent Cross and Battersea, as well as the West End and the City of London.

The milestone of signing contracts could be achieved during this parliamentary term.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓

Cost: **Around £1.9bn** plus enabling works
Revenue uplift: **£20m** per year

Fleet age: **23 years**

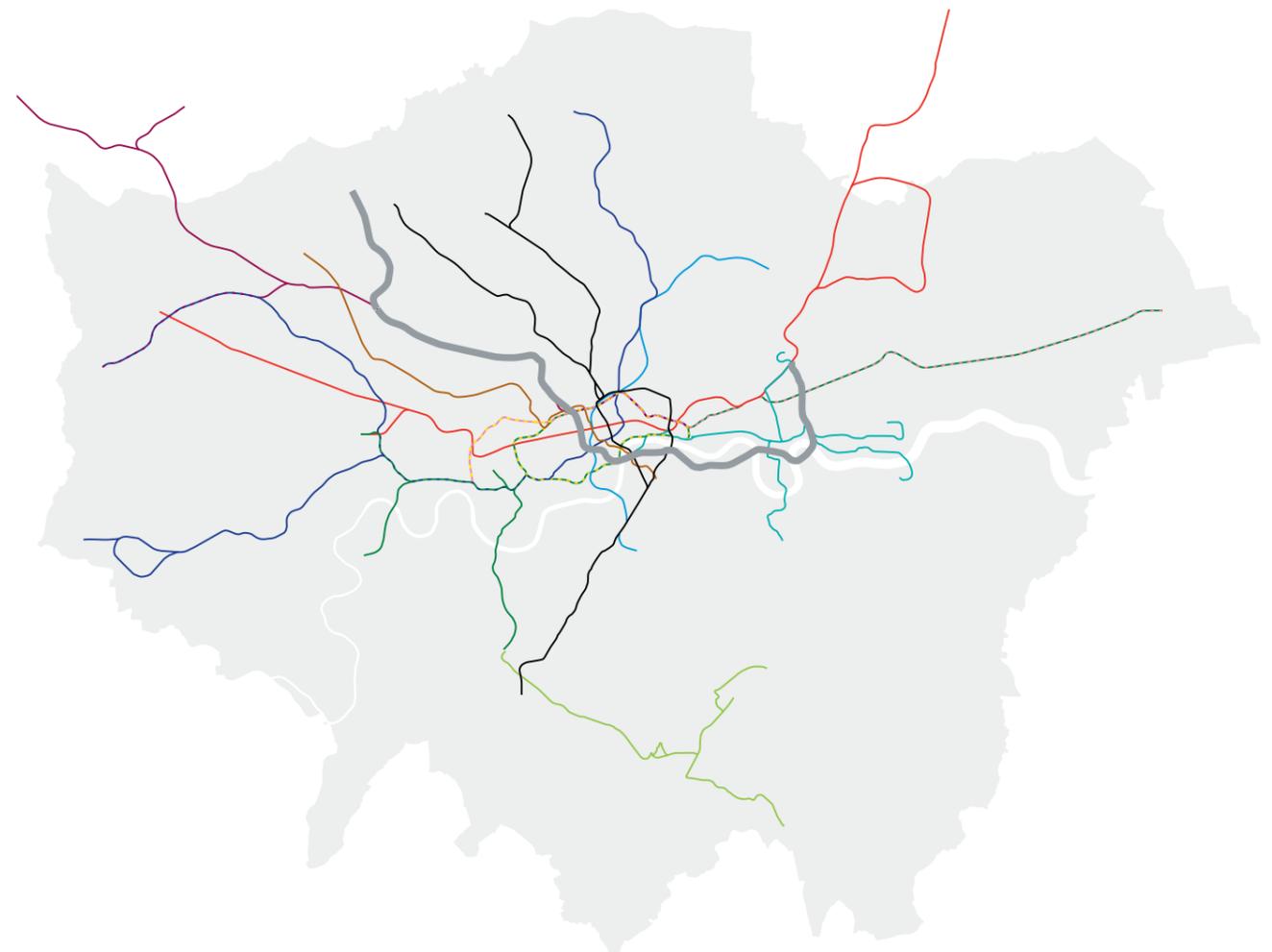
Delivery schedule: **2024-29**

Trains per hour today: **30** Future: **36**

Benefits:

A capacity uplift of 25 per cent, which equates to 14,000 extra people per hour able to access London's most productive business districts. This supports delivery of 15,000 new homes and frees up the current Jubilee line fleet to be used on the Northern line.

- Bakerloo line
- Central line
- Circle line
- District line
- Hammersmith & City line
- Jubilee line
- Metropolitan line
- Northern line
- Piccadilly line
- Victoria line
- DLR
- London Trams





Adapt and accelerate

This package of investment will progress targeted schemes so we can accelerate the move towards a zero-carbon future, while achieving higher productivity, creating new jobs and reducing inequality



We need continued investment to sustain our vital bus network

Sustaining London's bus network

Buses are the dominant mode of public transport in London, carrying 2.2 billion passengers each year. As we have seen throughout the city's history and again this year during the pandemic, London's bus network is vital in keeping the Capital moving. As the economy has reopened, the London Bus has continued to lead the way. It provides an accessible and inclusive travel option for all, enabling ever more important local trips and journeys to and from London's town centres. Buses also support critical workers, those returning to the office and vitally, our children as they return to school this September.

However, without continued investment, our bus network will shrink. This will restrict London's recovery by making it harder to access shops and jobs. It will encourage people to travel by car, which will increase congestion and carbon emissions. A smaller bus network will also mean fewer night services, fewer school services and fewer services in harder to reach parts of outer London. People who rely on the bus network most of all – children, key workers, women, and black, Asian and minority ethnic people – will be disproportionately affected.

A shrinking bus network will mean fewer new buses being ordered from UK manufacturers and a shrinking job market in that sector. Up to half of new bus orders in the UK come from London and cutting off this demand will harm manufacturers and their supply chains.

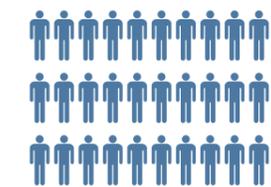
Sustained investment in the bus network will support London's green recovery and growth. A long-term commitment of £0.5bn in our bus priority programme will improve bus journey times, reduce operating

costs, and increase demand and revenue. Maintaining a pipeline of bus orders will enable us to accelerate the conversion of the bus fleet to zero emission, from 2037 to as early as 2030, matching the ambition of our European peers. A zero-emission bus fleet will reduce carbon emissions by three million tonnes and secure orders for 2,000 electric buses to be built across the UK in the next five years, helping the Government achieve its target of 4,000 electric buses by 2024. This will secure 3,000 jobs and enable manufacturers to create around 600 more.

To support the zero-emission fleet, we will need to spend £300m on power upgrades and charging infrastructure. In addition, accelerating conversion to 2030 will increase operating costs by £700m up to 2036/37, owing to the difference in cost between conventional and electric buses, net of fuel savings.

2.2bn

bus passengers in London each year



3,000

jobs that could be secured through investment in our zero-emission bus fleet

Bus electrification by 2030

Bus electrification has a central role to play in strengthening the UK's economic recovery from the coronavirus pandemic. Nearly a third of the UK's buses are in London, meaning the size of the London market can support the UK's electric drive-train and battery manufacturing, which can then supply the whole country's bus requirements. This would secure an existing 3,000 UK jobs and create around 600 more, including highly skilled manufacturing jobs in the electric vehicle supply chain, including in Scarborough, Falkirk, Leeds and Ballymena. We have extensive experience in integrating zero-emission buses into our fleet and procure half of all new buses in the UK each year, so we can quickly get funding to manufacturers.

We have already committed to fully electrifying our bus network by 2037. However, this would leave London behind other cities such as Amsterdam, Berlin, Brussels, Copenhagen, Milan, and Moscow. Accelerating this programme will help improve outcomes in public services and help reach net-zero carbon more quickly.

Clean and green buses will encourage people to use public transport and help avoid a car-led recovery. If buses could be electrified by 2030, it would reduce CO₂ emissions by 2.9 million tonnes, which is 1.3 million tonnes more than if we stuck with the original electrification date of 2037.

The additional cost of accelerating electrification to 2030 is around £1bn, which includes the required capital infrastructure and the operating premium from the initially more expensive vehicles.

£ Cost: **£1.0bn to 2030**

📅 Delivery schedule: **2020-30**

Benefits:

Electric buses produce no tailpipe emissions and can harness the CO₂ emissions of a cleaner electricity grid. Our buses contribute eight per cent of London's transport CO₂ emissions.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Improving outcomes in public services ✓
- Making the UK a scientific superpower ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓



Buses are essential in supporting the UK's recovery from the pandemic

Investing in zero-emission transport and energy

We must ensure our investment supports the uptake of zero-emission options to ensure a clean and green recovery.

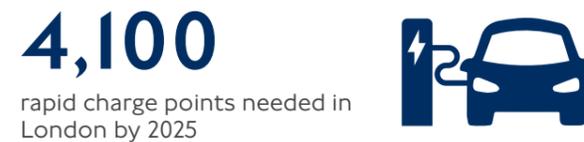
Electric vehicle charging infrastructure

Supporting the uptake of electric vehicles will reduce carbon emissions, cut pollution and improve air quality across London, while supporting economic growth across the UK. Our London electric vehicle infrastructure delivery plan outlines that, with an uptake of electric vehicles in line with the Mayor's Transport Strategy, London would need around 50,000 electric vehicle charge points of different types by 2025.

Investing in zero emission technology will generate UK jobs and help secure the UK's position as a global leader towards zero emissions. For instance, our policy since January 2018 requires all newly registered taxis to be zero emission capable. This has secured more than £300m in foreign direct investment and created more than 1,000 jobs in Coventry.

Further investment would unlock 50 per cent match funding from the private sector for the roll out of rapid charge points, and 25 per cent match funding from the London boroughs for the roll out of on-street residential charge points.

Our funding models for charging infrastructure in London show that an investment of £350m would deliver between 2,300 to 4,100 rapid charge points and between 33,700 to 47,500 slow-to-fast charge points by 2025. The blend of charging infrastructure delivered for this investment would depend on the uptake of electric vehicles and their charging behaviours. The development of a central London Zero Emission Zone would require £5m.



Zero-emission operations

We want our operations to be zero carbon and have a zero-carbon railway by 2030. Investing in improvements to the energy efficiency of our network, such as additional energy saving measures on our existing rolling stock, will improve reliability and reduce carbon emissions and operating costs.

Directly contracting our electricity use through renewable Power Purchase Agreements could add significant demand for clean energy and create additional jobs in the UK renewables sector outside London. Long-term procurement contracts for a significant proportion of our energy could have a value of around £1.2bn.

We will take an incremental approach to contracting for renewables and Government support could facilitate a more ambitious procurement route, resulting in even more renewables coming online and a more rapid decarbonisation of the country's electricity system. Complementary support for renewable projects, which directly connect to our network, would directly support clean energy in the South East.

Investment in schemes that reuse heat produced by the Tube would support the decarbonisation of heat in London and support job creation in this sector.

Cost: **Scalable at different levels**

Delivery schedule: **By 2030**

Benefits:

Accelerating London's contribution to cutting emissions. Renewing and greening transport assets, which in turn will enhance the efficiency of the energy network. Stimulating green job creation by fostering innovation in systems to decarbonise heat and promote energy efficiency.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Improving outcomes in public services ✓
- Making the UK a scientific superpower ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓

Healthy Streets and healthy people

Our Healthy Streets Approach will make walking, cycling and public transport the most appealing transport choices for everyone. This will improve people's health and wellbeing and make London a safer, greener, and more efficient and inclusive city. Prioritising people over cars will help revitalise high streets and make urban areas more pleasant, improving quality of life and attracting and retaining international businesses and their employees.

We need to avoid our city becoming clogged with cars. Any increase in traffic will create more exposure to toxic air pollution and reduce opportunities for physical activity, risking an increase in existing health inequalities. This approach is fully aligned with the Government's ambition, as laid out in its recent Gear Change Report, to rapidly grow the role of walking and cycling in our transport system.

London has huge potential to shift to walking, cycling and public transport. Nearly half of car trips in London could be cycled in around 10 minutes, and more than a third could be walked in under 25 minutes. We want to support everyone to do the 20 minutes of walking or cycling each day recommended for good health and wellbeing. To realise this potential, we need to invest in our streets to make them safe, reliable and appealing places for walking, cycling and public transport.

We would need an investment of £3.4bn to 2030 to fully deliver transformative projects that enable more walking and cycling and improve bus services across London. These include creating additional Low Traffic Neighbourhoods and School Streets on borough roads, expanding the cycle network to reach 70 per cent

of Londoners, expanding our cycle hire scheme to make bikes more easily available to a greater number and more diverse range of people, making our Streetspace for London plan transformations permanent where appropriate, and improving safety through our Safer Junctions programme as we work to eliminate death and serious injury from our transport network by 2041. These actions will also help to improve bus speeds, which will reduce operational costs, facilitate future growth and improve the operational efficiency of our roads. Increasing walking, cycling and bus use will mean streets are used more efficiently, which will also support London's growing population and economy.

There are also wider benefits from investing in carefully designed Healthy Streets, such as more green infrastructure, better air quality and sustainable drainage to prevent flooding. This will create cleaner, greener, more inclusive and attractive urban spaces that improve health and wellbeing, and prepare for the risks of climate change.

£15.4bn

cost to the NHS and social care by 2050 for caring with people with conditions from poor air quality if no action is taken



£1.7bn

saving in NHS treatment costs over 25 years if every Londoner walked or cycled for 20 minutes a day



Cost: **£3.4bn**



Delivery schedule: **By 2030**

Benefits:

Revitalised local high streets attracting and retaining international business and employment. More walking and cycling. Improved bus speeds. Improved health.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Improving outcomes in public services ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓

Santander Cycles

Our Santander Cycles scheme plays an important role in supporting London's active travel goals. Since 2010, the scheme has contributed more than 10 million cycle journeys each year as more people discover the benefits of cycling in London. During lockdown, ridership increased significantly, with membership increasing by 200 per cent between March and July 2020 and 85,000 new people signing up. Santander Cycles also played a key role in helping key workers get around. As the scheme celebrates its 10-year anniversary, an upgrade is needed to sustain operability and keep pace with technological change.

We will need £25m of investment into the Santander Cycles scheme to bring about wide-ranging benefits, including introducing e-bikes for the first time and upgrading the hire tariff to meet current and future needs. This investment would also enable us to expand the scheme, with 40 new stations complementing the design of key cycling routes in southeast and southwest London.

The investment would enable revenue growth that will, in time, offset the scheme's operating costs and deliver a business-critical upgrade to the back-office systems, ensuring compliance with General Data Protection Regulations and Payment Card Industry Data Security Standard.



Our investments are enabling more Londoners to cycle safely

Streetspace for London plan

In response to the pandemic, we devised the Streetspace for London plan to rapidly transform London’s streets and support health and safety through the promotion of active travel. We developed plans for 10 corridors to expand the cycling network in the areas where it is most needed, while also delivering improvements for walking and buses.

The plans currently incorporate temporary measures, which could be expanded and made permanent. These would deliver a range of benefits, including expanding the cycle network to reach 70 per cent of London’s population, creating a healthier population and stimulating the economy.

Cycle network delivery

We have been working closely with London boroughs to deliver new and upgraded cycle routes across Greater London, including protected cycle tracks on busy main roads and routes using quiet residential streets. These projects have successfully encouraged more people to switch to cycling, with large increases in ridership on improved routes.

Expanding the cycle network to reach more Londoners is at the core of our ambition for cycling – just nine per cent of Londoners live within 400 metres of London’s high-quality cycle network. Our plans for this have been developed using a world-leading, data-led Strategic Cycling Analysis tool, which considers current and potential cycling as well as supporting population and employment growth.

54%

increase in cycling on the upgraded Cycle Superhighway 2



18%

increase in cycling across our Mini-Hollands schemes, and 12 per cent increase in walking

127%

increase in cycling on the new Cycle Superhighway 6



Further step-free access programme

Our existing step-free access programme is improving accessibility across the Tube network. We have not yet confirmed plans to continue this work beyond 2024. Continuing commitment to this programme, alongside the Government's Access for All programmes at Network Rail stations, would improve life opportunities for the 14 per cent of Londoners who have a disability and enable them to continue to make a contribution to the growth of London's economy.

As well as improving life for Londoners, our step-free access programme also makes London a more friendly and inclusive city for visitors. These investments offer good value for money, with works typically having sizable third-party funding, and provide other benefits to stations, such as larger ticket halls.

Even with recent progress in providing step-free access, the Tube still significantly lags behind other world metro systems. Around a third of our Underground stations are fully accessible, whereas typically 70 to 100 per cent of other world cities' stations are accessible.

Adding new accessible stations to the programme could focus on the most strategically significant locations, reducing barriers to travel and improving connectivity for areas of London that deliver the largest benefits.

 Cost: **scalable at different levels**

 Delivery schedule: **2024 onwards**

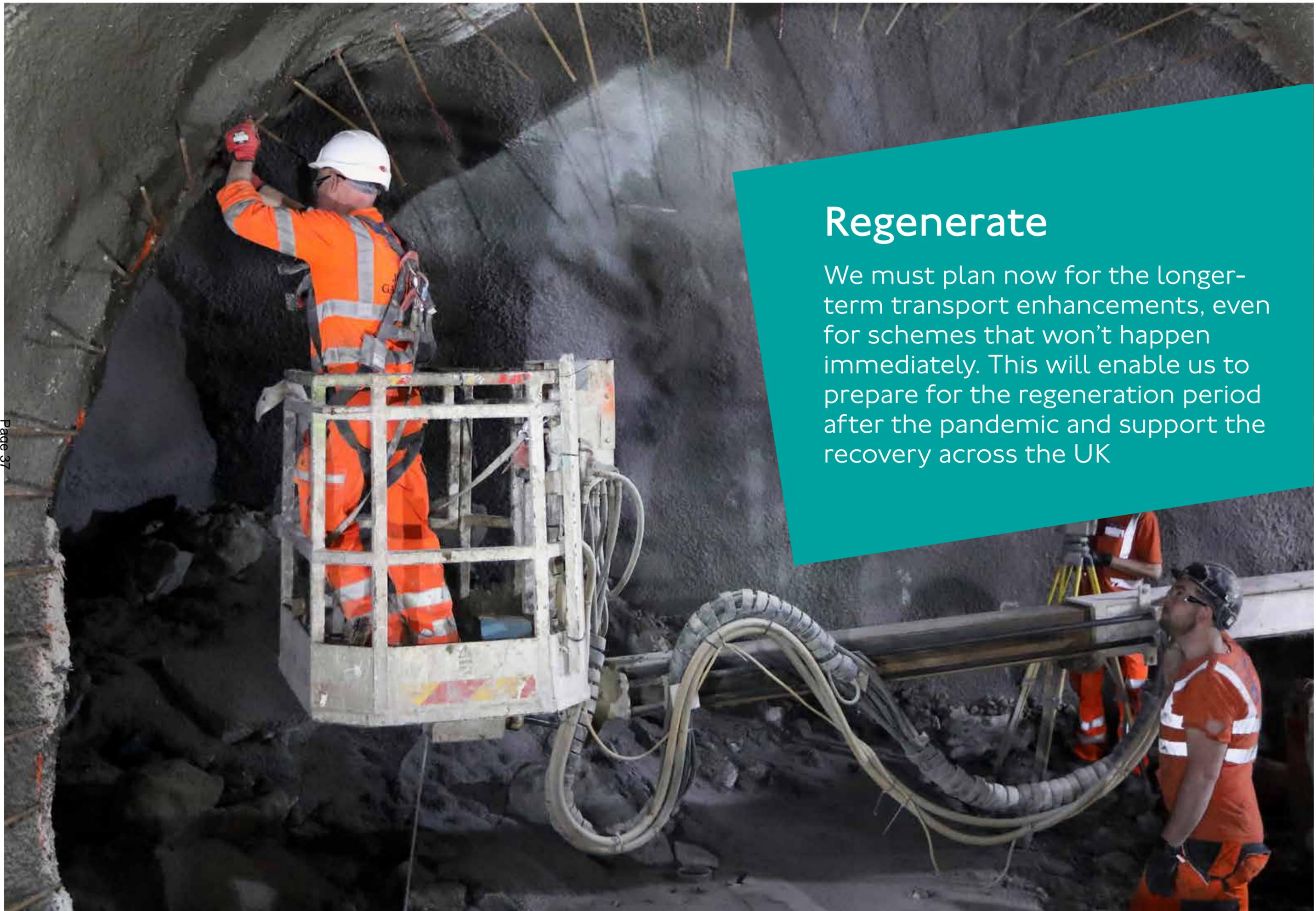
Benefits:
Reduces additional journey times for those who rely on step-free routes, improves social inclusivity and life opportunities for disabled people and anyone with reduced mobility.

How this aligns with Comprehensive Spending Review objectives

- Improving outcomes in public services ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓



Step-free access enables people to contribute to London's growth



Regenerate

We must plan now for the longer-term transport enhancements, even for schemes that won't happen immediately. This will enable us to prepare for the regeneration period after the pandemic and support the recovery across the UK

Increasing frequency on the Elizabeth line

The Elizabeth line will run at 24 trains per hour in central London when it is complete, but it has been designed with the capability to run more frequently than this. Relatively minor investment, focused on additional trains and stabling facilities, could increase this to a train running every two minutes.

This could be combined with extending the central core of the route to serve the new HS2 hub at Old Oak Common. This would provide more capacity for passengers arriving from the Midlands, North of England and Scotland, to both central London and Heathrow Airport.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Strengthening the UK's place in the world ✓
- Improving the management and delivery of our commitments ✓

Cost: **£0.5-1bn**

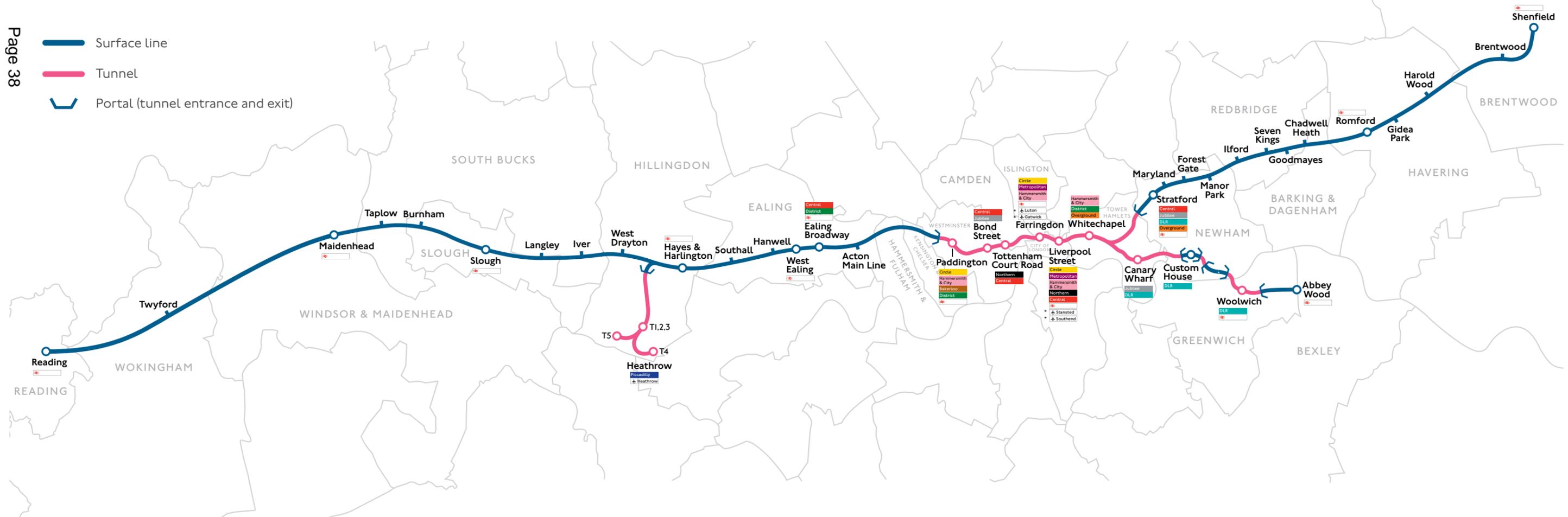
Delivery schedule: **2023-28**

Trains per hour upon completion: **24** Future: **30**

Benefits:

This would increase capacity on the line by 25 per cent once fully open, enabling an additional 18,000 people to travel per hour to some of London's most important employment districts.

- Surface line
- Tunnel
- ∩ Portal (tunnel entrance and exit)



DLR extension to Thamesmead

Extending the Beckton branch of the DLR across the river supports the regeneration of the Thamesmead and Abbey Wood Opportunity Area and would also unlock growth at Beckton Riverside. The extension would improve connectivity across the river in some relatively deprived areas of London and increase capacity to support growth.

Cost: Around £800m

Delivery schedule: 2026-30

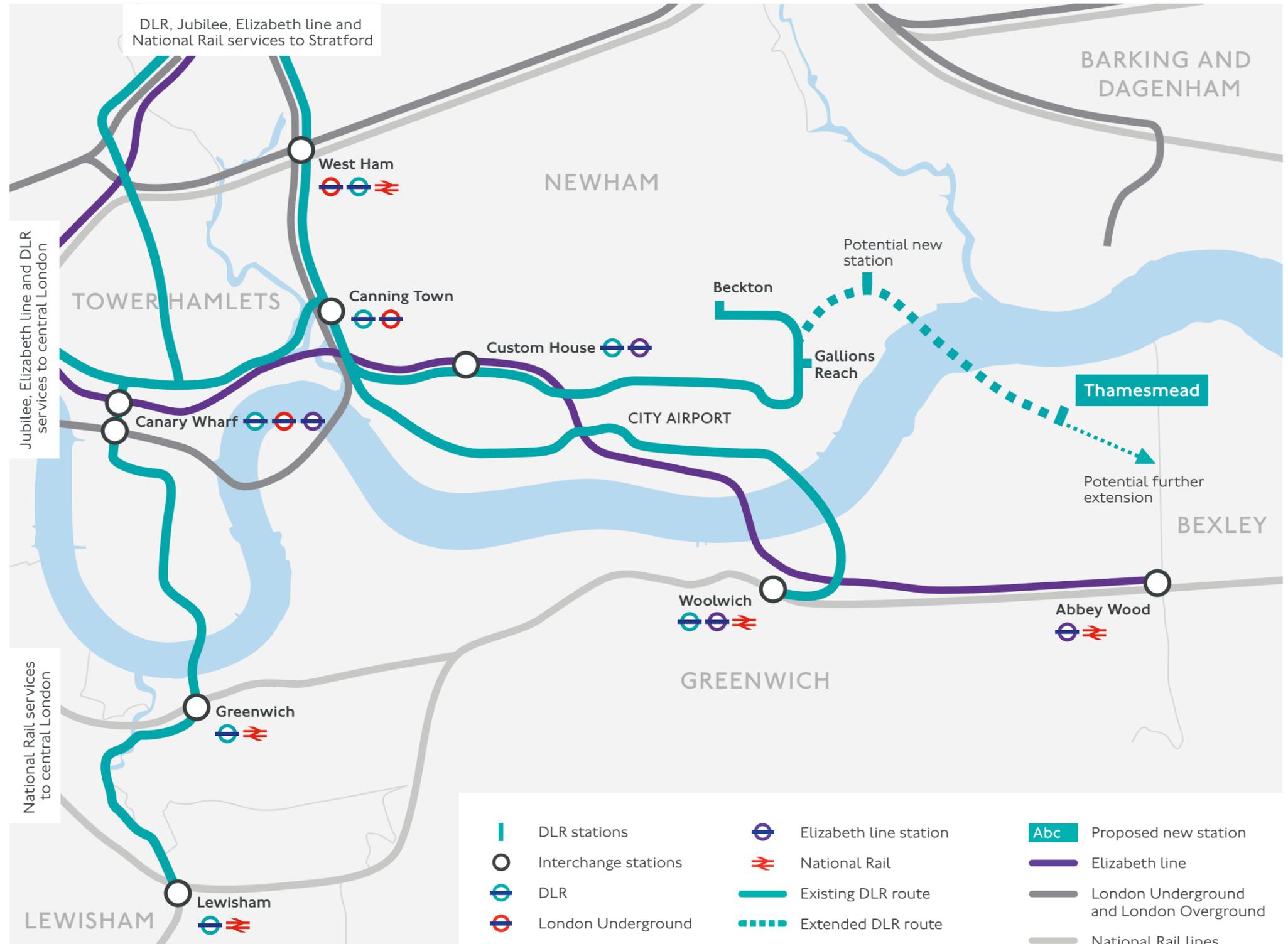
Trains per hour today: n/a
Future: up to 5

Benefits:

Supporting up to 20,000 new homes across the Thamesmead and Abbey Wood and Royal Docks and Beckton Riverside Opportunity Areas. At least 8,000 jobs in Thamesmead, and potentially more at Beckton Riverside.

How this aligns with Comprehensive Spending Review objectives

- Levelling up economic opportunity ✓
- Improving outcomes in public services ✓
- Improving the management and delivery of our commitments ✓



Delivering housing for London

Our property portfolio can unlock homes, deliver construction activity and provide a revenue uplift.

As one of London's largest landowners, we play a key role in delivering the thousands of homes and jobs that our city needs. We currently hold £1.7bn of commercial assets on our balance sheet, operate an expert property development function, and have a self-financed business plan to deliver 13,400 homes across London, 50 per cent of which will be affordable. This can all be delivered without the need for new Government funding.

With access to debt or equity, we could deliver around 47,000 homes across our property development pipeline, and many more beyond this if our activity is coordinated with Network Rail and others.

Access to Housing Infrastructure Funding will be critical to accelerating some of these sites, potentially in three tranches – starting in March 2021 where £350m would help unlock more than 10,000 additional homes, largely in major, new, mixed-use town centre schemes.

By building these new homes, alongside our significant commercial portfolio, we can support £1bn of construction activity, which will provide massive benefit to the supply chain as well as increase our revenue from £100m to £300m a year.

Some of the schemes that can be progressed with Housing Infrastructure Funding include:

West London Orbital

This new orbital connection, supporting 14,000 housing units, will significantly improve public transport accessibility in west and northwest London, releasing growth capacity and alleviating pressure on the Piccadilly line and sections of the London Overground.

North Acton Station Upgrade

This development, supporting 6,000 homes, provides additional capacity, step-free access and a new station entrance and bridge to the HS2 development site. Developer contributions are committed for the station upgrade and further contributions are expected. However, the scheme cannot be progressed until a full funding package is in place.

Canning Town Station Upgrade

This scheme, which will support up to 10,000 homes planned within walking distance of the station, is critical to supporting the future operation of the station in the context of growth and the communities that the various lines intersects. The scheme would enable opportunities in the Royal Docks Enterprise Zone and opportunity area.

Growth Fund

The Growth Fund is our only programme dedicated to delivering new homes, jobs and growth. It targets smaller scale investment where transport directly constrains growth and plays a critical role in

the Mayor's objectives to reduce car travel and create healthy, safe and attractive public spaces. Crucially, the Growth Fund leverages large amounts of third-party funding to maximise the benefits of our contribution.

Without continued funding for smaller scale transport infrastructure improvements through this fund, thousands of new homes will be put at risk. For example, schemes in Colindale, Thameside West and Catford would deliver nearly 20,000 homes.



Cost: **Immediate nil**
1st tranche: **£350m**
2nd and 3rd tranche: **£200m** each
Revenue uplift: **£200m** per year

Delivery schedule:
Current pipeline: **Immediate** once access to funding confirmed
1st new tranche: **2021-28**
2nd and 3rd new tranche: **2028-42**

Benefits:
Delivers 47,000 homes, supports the construction supply chain, including counter-cyclical investment, and creates tens of thousands of jobs through £1bn worth of construction activity. Also provides improved accessibility through step-free access and improved interchange, with wider social, economic and environmental benefits in multiple town centres across London.

How this aligns with Comprehensive Spending Review objectives

- Strengthening the UK's economic recovery from coronavirus ✓
- Levelling up economic opportunity ✓
- Improving the management and delivery of our commitments ✓

Camden Town and Northern line separation

If we purchase a new fleet of trains for the Jubilee line, we can add some of the current Jubilee line fleet to the Northern line. This would enable an unprecedented capacity upgrade to our most used line. We can do this by upgrading Camden Town station and separating the branches of the Northern line, effectively adding a new 'Northern line 2' line to the network.

How this aligns with Comprehensive Spending Review objectives

Levelling up economic opportunity	✓
Improving outcomes in public services	✓
Improving the management and delivery of our commitments	✓

- Bakerloo line
- Central line
- Circle line
- District line
- Hammersmith & City line
- Jubilee line
- Metropolitan line
- Northern line
- Piccadilly line
- Victoria line
- DLR
- London Trams

£ Cost: **£0.6-1.3bn**
Revenue uplift: **£35m** per year

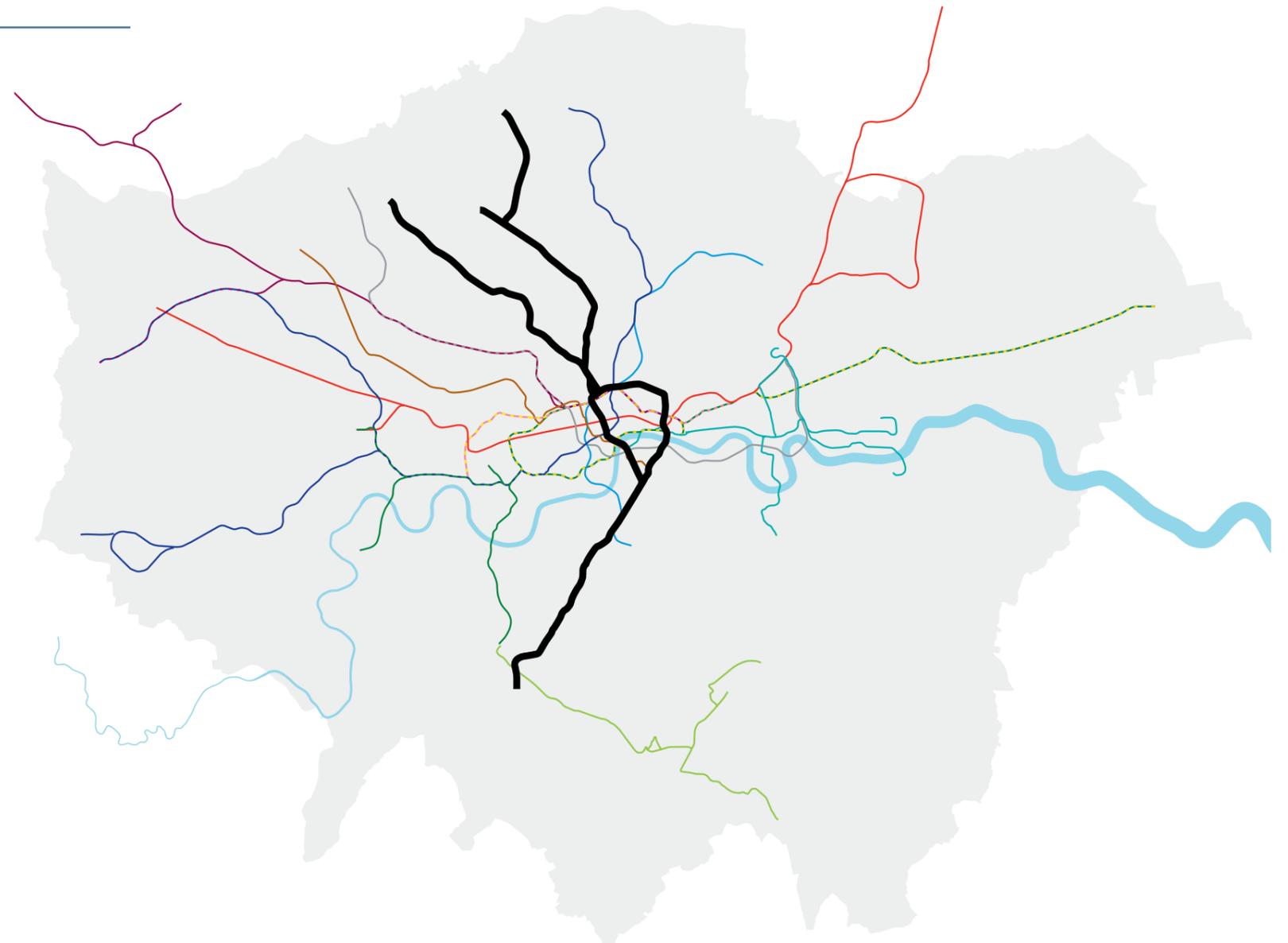
📅 Delivery schedule: **2024-28**

🚆 Trains per hour today:
24 x 2 branches = **48**
Future: 30+ on 2 branches = **60+**

🚆 Fleet age: **28 years**

Benefits:

At least 25 per cent capacity increase on both the Northern line and the new 'Northern line 2' – created from the Charing Cross branch, via Kennington and Battersea with the completed Northern Line Extension. This would enable at least 20,000 additional people to be transported per hour.



Unlocking the benefits

With total TfL capital investment of around £3bn per year, in constant prices, over 10 years, we could unlock these benefits

20,000

new homes could be delivered as a result of replacing Piccadilly line signalling and upgrading Holborn station



14,000

extra people per hour could travel on a higher capacity Jubilee line fleet



2.9m

tonnes of total CO₂ that would be removed if we electrify our bus fleet by 2030



1,050km

of track that we must inspect, maintain and renew



20,000

additional people could be transported per hour on the 'Northern line 2'



1,000

new jobs created in Coventry from manufacturing electric vehicles

3

major road structures that will need to close in the next five years without significant investment



25%

increase in capacity on the Elizabeth line once open



14%

of London's population who live with a disability and would benefit from additional step-free access



3,600

jobs will be secured or created with our zero-emission bus fleet programme for UK-built electric buses



50,000

new electric vehicle charging points with sufficient investment to unlock match funding



1million

fewer new air pollution related hospital admissions by 2050, as a result of the Mayor's air quality policies

[page left intentionally blank]