

# Transport for London Business Plan

December 2016



## About Transport for London (TfL)

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

As a core element in the Mayor's overall plan for London, our purpose is to keep London moving, working and growing, and to make life in our city better. We reinvest all of our income to run and improve London's transport services and to make it safer, more modern and affordable for everyone.

Our operational responsibilities include London Underground, London Buses, Docklands Light Railway (DLR), London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line.

On the roads, we regulate taxis and the private hire trade, run the Congestion Charging scheme, manage the city's 580km red route network, operate all of the Capital's 6,300 traffic signals and work to ensure a safe environment for all road users.

We are delivering one of the world's largest programmes of transport capital investment, which is building the Elizabeth line, modernising Tube services and stations, transforming the road network and making it safer, especially for more vulnerable road users, such as pedestrians and cyclists.

We work hard to make journeys easier through effective use of technology and data. We provide modern ways to pay through Oyster and contactless payment cards and provide information in a wide range of formats to help people move around London.

Real-time travel information is provided directly by us and through third-party organisations, which use the data we make openly and freely available to power apps and other services.

We listen to, and act upon, feedback and complaints to constantly improve our services and work with communities, representative groups, businesses and many other stakeholders to shape transport provision in London.

Improving and expanding transport in London is central to driving economic growth, jobs and housing throughout the United Kingdom. Under the Mayor's housing strategy, we are using our land to provide thousands of new, affordable homes. Our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

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# Mayor's introduction

My first TfL Business Plan is an important document.

It comes at a difficult moment. I share the grief and shock of the families of those who lost their lives, and the many people injured and affected by the tragic tram derailment in Croydon. As the Commissioner points out in his foreword, safety is TfL's absolute priority. We will take every action necessary to prevent this from ever happening again, and we will continue to offer every support to the local community for the long term.

This plan sets out how we will make commuting safer and more affordable for all Londoners at the same time as delivering a truly ambitious programme of modernisation and transformation.

Transport is a cornerstone of my vision for a fairer, more prosperous city. Because transport doesn't just help people to get around, it can help people to get on. It can create opportunities for Londoners. It links our homes to our jobs. It gets children to their schools. It connects friends and family. It joins London's businesses to customers. And it provides access to London's culture.

But if we are to ensure our transport network can cope with London's growing population, provide new opportunities for Londoners and deliver the safe, affordable and reliable service Londoners deserve, then we need some big changes. We need to keep fares down, plan and deliver new transport capacity and constantly look for new ways to innovate.



I'm determined to do this and it's already been a busy first seven months. We've already launched the new Hopper fare, which is helping millions of people. We've already begun the Night Tube, which is helping to boost our night-time economy. And we've already announced a TfL fares freeze for four years, which is helping to ensure travel is not a barrier to people getting on with their life.

But this is just the start. We're now focusing on how we can deliver transport solutions that not only result in extra capacity and economic growth, but bring long-term health, environmental and other benefits too.

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**I am asking TfL to use every ounce of its expertise, creativity and energy to achieve our ambitious Business Plan. But I am confident we can deliver my vision for an affordable, accessible and modern transport network**

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So we're forging ahead with our plans to tackle air pollution, provide new genuinely affordable homes on TfL land and make the case for big infrastructure projects, such as Crossrail 2. It's through initiatives like this that we can truly unlock the power of transport.

I am very disappointed that the Government is going back on its promise to devolve suburban rail franchises to TfL's control. Already, TfL has proven what can be delivered from rail devolution – more frequent trains, fewer cancellations and delays, more staff on stations and more affordable fares. There is a very strong business case for devolving some suburban rail franchises to TfL and I will continue to work alongside commuters, business leaders and politicians from all parties to campaign for this.

To achieve our ambitions, this Business Plan sets out how TfL is becoming a leaner organisation and how we're developing a new approach for how the organisation and its workforce can work together more efficiently.

We need TfL to be good at delivering projects on time and to budget, at finding new sources of finance, at generating new revenue streams and at helping Londoners make the shift to greener, safer, more sustainable forms of transport such as walking and cycling. These are already TfL's strengths, but we want to play to them with greater ambition and urgency.

Make no mistake, I am asking TfL to use every ounce of its expertise, creativity and energy to achieve our ambitious Business Plan. But I am confident we can deliver my vision for an affordable, accessible and modern transport network. And that, through transport, we can create a healthier, more sustainable and safer city that increases opportunity for all Londoners.

A handwritten signature in black ink, reading "Sadiq Khan".

**Sadiq Khan**  
Mayor of London and  
Chair of the TfL Board

Our Business Plan outlines how, over the next five years, we will manage our resources to deliver the Mayor's commitments. It includes:

#### Affordable transport

Keep all TfL fares **frozen**

More journeys with the **Hopper fare**

**Protect** all concessions

#### Making transport more accessible

More than **40%** of Tube stations step-free by 2021/22

**Improve** bus stop and taxi rank accessibility

**100%** step-free Elizabeth Line

#### Safer London

New **Vision Zero** target for road safety measures

**New** safety standards for buses in London

**New** 20mph limits

#### Housing and regeneration

**10,000** homes on TfL land (50 per cent affordable)

Lobby for powers to extend **Bakerloo line**

**Crossrail 2** development

Silvertown **tunnel**

#### Public transport, walking and cycling

**More** people on the buses (better journeys and reliability)

**Open** Elizabeth line

**More** cycling and walking (including Rotherhithe crossing)

#### Cleaning up air quality

**ULEZ** Ultra Low Emission Zone

Revised start for **ULEZ**

**T-Charge**

Purchase only **green** buses from 2018

#### Harnessing tech to improve journeys

Top-ups available **anywhere** on the network

**500** apps using TfL data

**Ticketing app**

#### Raising commercial revenue

**£850m** revenue from better use of TfL land

**Develop** a trading arm

#### Creating attractive and iconic places

**Transform** Oxford Street for pedestrians

**Improve** London's roads

#### Helping business

**More** integrated deliveries

**Re-timing** deliveries

#### Community/borough partnerships

Borough spend **maintained**

#### Diversity and inclusion

A more **representative** workforce and senior management

# Commissioner's foreword

The safety of our customers, passengers and users must remain our top priority. This is fully reflected in this plan.

The terrible tram derailment at Sandilands in Croydon, where seven people tragically lost their lives and more than 50 people were injured, is at the very centre of our hearts and minds as we deliver this plan. It fully addresses safety as our absolute priority and all necessary resources and money are in place to ensure a safe network for our customers and all road users.

The Capital is growing rapidly. Its population already exceeds 8.6 million and will rise to 10 million by 2030. That is equivalent to two full Tube trains of new Londoners every week.

This is the first TfL Business Plan of Sadiq Khan's first term as Mayor of London. Our job is to deliver his commitments and the transport services that keep London moving, working and growing and make life in the city better.

We know that transport is not an end in itself. It is a means of enabling a healthier, more inclusive city with new jobs and homes to stimulate and sustain economic growth to the benefit of all Londoners and the entire country.

As a core element of this, I am fully committed to making our transport network affordable while delivering safe, high-quality and reliable services alongside one of the biggest capital investment programmes in the world. And I am determined to take all the action we can to help tackle London's poor air quality.



We are driving efficiency through the biggest ever overhaul of our organisation and we have a new way of presenting our finances, making a clear distinction between operations and the capital investment programme.

Operating and capital cost reductions are being achieved through a wholesale review of every element of our operations. This includes:

- Merging functions to create efficiencies
- Reducing management layers
- Cost reductions across areas that support our operational business

- Less reliance on agency staff
- Negotiating better deals with our suppliers
- Sensible and considered value engineering in delivering our major projects

And we are already seeing the results. Historically, our operating costs have risen year-on-year. Over the past six months, however, we have reversed this trend; our operating costs have stabilised and are now falling. In the long term, we plan to hold costs broadly stable at this level, while delivering the modernisation and new transport capacity London needs. This will include opening the Elizabeth line and delivering vital upgrades on the London Underground.

We are also taking a fundamentally different approach to raising other income. We have ambitious plans for the use of our land and retail estate and delivering new homes, and our target is for 50 per cent of them to be affordable, in support of the Mayor's housing strategy.

With our media partners, we will fully exploit our huge advertising estate by investing in a new generation of digital assets. We are also harnessing our expertise by offering consultancy services to other transport operators across the world, in areas like ticketing technology and capital programme delivery.

Naturally, we were very disappointed with the Government's response to our business case for further devolution of rail services to TfL. We will, of course, continue to set out how we

can bring the high levels of reliability and customer service seen on London Overground to other inner suburban rail services in the Capital. We have set aside £20m of funding to enable us to start work immediately should the position change in light of our arguments.

Recent events outside our control have the potential to significantly affect our finances and operations in the long run, including the Government's decision to build a third runway at Heathrow and the decision for the UK to leave the EU. It is too early to set out with any certainty what the impact of these decisions will be but, as things become clearer, they will be reflected in future iterations of this plan.

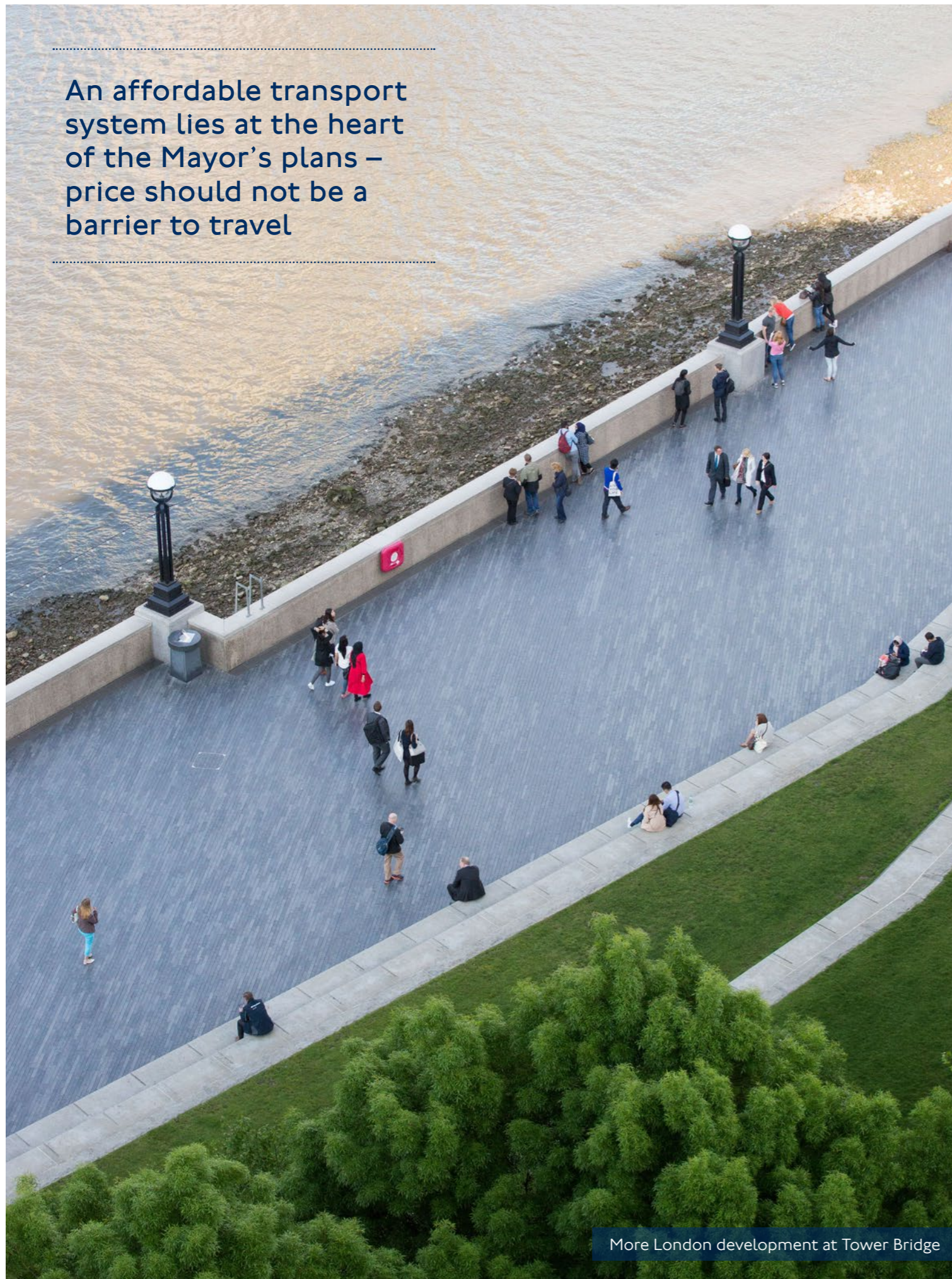
The Mayor is committed to delivering a city for all Londoners and that commitment extends to TfL as an employer, to ensure transport plays a central role. For too long, and especially at senior levels, women and colleagues from black, Asian and minority ethnic communities have been under-represented. This must change so that we reflect the diverse city we serve.

In short, we will overhaul our organisation so that it is more efficient and more inclusive than ever before, while creating a healthier, more sustainable and safer city.

A handwritten signature in black ink, appearing to read 'Mike Brown'.

**Mike Brown MVO**  
Commissioner  
Transport for London

An affordable transport system lies at the heart of the Mayor's plans – price should not be a barrier to travel



More London development at Tower Bridge

## What this plan will deliver

A total of £2.1bn will be invested to create Healthy Streets, focusing on walking, cycling and improving road safety, public spaces and air quality.

### Affordable transport

An affordable transport system lies at the heart of the Mayor's plans – price should not be a barrier to travel.

Our fares are frozen for the Mayor's term so Londoners will pay the same for TfL Tube and bus journeys in 2020 as they do now. A new Hopper fare was launched on 12 September 2016, giving customers two rides for the price of one if they are changing buses or trams within an hour. Unlimited rides within the hour will be introduced from 2018. Fares tied to National Rail will increase unless rail services are devolved to the Mayor, or the Government follows his lead to freeze prices.

A new publicity campaign, backed by online tools and customer support, has been launched to help people find the cheapest option and encourage switching to pay as you go fares.

All concessions for older and disabled people, children, those in receipt of Jobseekers Allowance, and other socially disadvantaged groups will be protected during the Mayor's term.

These changes will be paid for by a tough cost reduction programme and exploitation of new commercial opportunities.

### Public transport, walking and cycling

This Business Plan is focused on Londoners themselves. By making our network more affordable and accessible, we will encourage people to shift towards active and healthier travel. We will reduce traffic and make walking, cycling and public transport safer and more attractive. We will further enhance the system with good connections between services, ultimately creating Healthy Streets and a city that is more pleasant to live in and move around. This will particularly benefit Londoners in communities that experience poorer health.

We will encourage a shift to public transport by:

- Increasing capacity on our Underground and rail services by more than 20 per cent, through projects such as the new Elizabeth line, and expanding the Overground, DLR and tram networks
- Focusing on the bus network – the backbone of public transport in London – to improve journey times and maintain reliability. We will do this by, for instance, investing in bus lanes and other priority measures. We will adapt services to meet changing demand across London, without reducing the network overall

Our Business Plan supports the Mayor's commitment to make London a byword for cycling by increasing investment in this area to an average £154m per annum for the next five years. This is almost double the £79m a year spent over the last Mayoral term.

We are boosting cycling and walking in the Capital by working with London's boroughs to create a network of Cycle Superhighways, Quietways, new safer junctions and Liveable Neighbourhoods. Not only will this benefit Londoners' health, it will reduce overcrowding on the roads and public transport, improve air quality and make our roads safer.

### **Safer London**

Whether it is running and maintaining our trains, tunnels, roads and rail, investing in new capacity to relieve overcrowding, or using the latest technology to combat congestion, safety is always our first priority. Our goal is to create an environment where people are safe and feel safe, however they choose to travel. To do this, we will continue to work with the Capital's police authorities, including the British Transport Police (BTP), to make sure customers feel confident about using our services at all times.

We will implement all recommendations emerging from the Rail Accident Investigation Branch's report into the tragedy on the tram network in Croydon, and do everything we can to offer support to the families of those who lost their lives or were injured.

On our road network the number of people killed or seriously injured (KSI) is now the lowest since records began. However, much more can and should be done.

In 2017, we will increase our ambition by adopting a 'Vision Zero' approach to road safety. This means maximising safety in all our road schemes, from infrastructure improvements to behaviour change and enforcement programmes. Our long-term vision is to see London's roads free from death and serious injury.

Vision Zero means reducing the dominance of vehicles on our streets to minimise the risks they pose to vulnerable road users. It is an important part of the Healthy Streets approach, because less traffic means streets are safer and more attractive for walking, cycling and using public transport.

We will implement a new safety standard for buses, enhance conditions for vulnerable road users by tackling the city's highest risk junctions, and oversee the introduction of more 20mph limits.

Customer security is central to everything and we will continue our work to ensure London's public transport system is a safe, low-crime environment.

### **Creating attractive and iconic places**

We will work with Westminster City Council to turn Oxford Street, one of the world's most polluted streets, into one of the world's finest public spaces. Local bus services will be altered to reflect both this change and the opening of the Elizabeth line. Major improvements will also take place in inner and outer London, for instance in Stratford town centre, where we will make it better for pedestrians and cyclists, while enhancing the public space.

We will invest substantial sums through the Healthy Streets programme to help transform areas of London, making the city a more attractive and accessible place in which to live, work and travel. Our investment will ensure the Capital continues to thrive as the world's most desirable destination for visitors and a top global city for business, finance and culture.

These schemes often underpin vital developer investment. For example, at Old Street, we are transforming the existing busy roundabout to provide safer crossings, segregated cycle lanes and a new public space. Another example is Tottenham, which will benefit from a new station at White Hart Lane with improvements to the surrounding area, complementing the rebuilt White Hart Lane stadium.

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**This Business Plan includes a bigger increase in step-free access than ever before – £2.50 for every £1 spent on step-free access in the last Business Plan**

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### **Increasing accessibility**

This Business Plan includes a bigger increase in step-free access than ever before – £2.50 for every £1 spent on step-free access in the last Business Plan.

Acting on the Mayor's vision, we are taking a more ambitious approach to making sure London is truly open to everyone. By the end of 2021/22, more than 40 per cent of Underground stations will have step-free access to all platforms. This will give a greater choice of travel options and will directly benefit older and disabled people, as well as parents and carers with children and pushchairs.

Over the next five years, some of our busiest stations will become step-free. These include Bond Street, Finsbury Park, Tottenham Court Road and Victoria. We will also focus on improving accessibility at stations elsewhere across London,

including Colindale, Harrow-on-the-Hill, Newbury Park and Knightsbridge. When the Elizabeth line opens fully in 2019, like the DLR and London Trams, its stations will all be step-free.

Working with London's boroughs, we will complete our programme to improve bus stop accessibility and begin a programme to enhance access at taxi ranks.

#### Helping business

London is one of the world's top cities for business, and a high-quality transport network is vital to making sure it remains globally competitive.

We will help business to move goods and services around the Capital reliably and affordably, and be able to recruit from across the city and wider region.

Healthy Streets and clean air are important factors that help business decide where to locate and attract staff. As part of tackling London's poor air quality, we will work with businesses to encourage higher standards for safer and cleaner vehicles and make it easier for their employees to walk and cycle to work.

We must cut congestion and improve road reliability. This will involve working with business to help meet freight needs in the safest, cleanest and most efficient way possible, providing better road information and improved coordination of planned roadworks.

And we will invest in new transport connections to help customers make easier journeys. The Elizabeth line and the modernisation of the Tube will make a huge difference to capacity. We are also planning projects that will transform the network and support our economy and competitiveness in the longer term, including Crossrail 2, the Silvertown tunnel and an extension to the Bakerloo line.

#### Cleaning up air quality

In London, the equivalent of up to 9,500 premature deaths a year are attributed to exposure to air pollution. We are committed to working with the Mayor to take ambitious and decisive action to bring this under control, and quickly. Spending on environmental activities has increased dramatically to £875m over the period of this plan.

We are launching the world's first Ultra Low Emission Zone (ULEZ) in central London. This will reduce nitrogen oxides and particulate matter – the two biggest threats to health from poor air – and improve the quality of life for Londoners. After listening to feedback from the public, we are currently consulting on an earlier start date for the ULEZ of 2019. We are also proposing expanding the zone up to the North and South Circulars for all vehicles, and London-wide for lorries, coaches and buses.

We have been asking the public for their views on introducing, in 2017, an Emissions Surcharge to the Congestion





Charge (also known as the Toxicity Charge or T-Charge) for higher polluting vehicles, as a first step towards the ULEZ in 2019. The creation of five Low Emission Neighbourhoods, involving eight boroughs and a range of local businesses, as well as the continuation of the Mayor's Air Quality Fund, will cut pollution across London.

By implementing 12 Low Emission Bus Zones we will reduce even further the impact our bus fleet has on the Capital's air quality. We will also phase out the purchase of conventional diesel buses and aim only to procure green vehicles (hybrid or zero emission) from 2018.

#### More housing and regeneration

A core principle of the Mayor's vision for the Capital is that new investment should act as a catalyst for regeneration and create opportunities for communities beyond central London.

We must increase the supply of new housing across the city. Our planned extensions on the London Overground to Barking Riverside, and our work on the Bakerloo line are good examples of infrastructure investment creating growth and regeneration – they will support the delivery of 10,800 and 25,000 new homes respectively.

We are working to build 10,000 homes on 300 acres of our own land, as well as provide new workspaces and offices. We have increased the scale and pace of this development, and our target is for 50 per cent of these homes to be affordable.

# 10,000

new homes being built on 300 acres of TfL-owned land



# By 2033

Mayor's commitment to delivering Crossrail 2



# £850m

in revenue generated by using our land for property development



Crossrail 2 – the largest new infrastructure project under development – is critical for London. It will enable up to 200,000 more homes and could directly support thousands of jobs (60,000 across the UK while it is being built and a further 200,000 when services start). The Mayor is committed to delivery by 2033, and we will work closely with the Department for Transport (DfT) and Network Rail to meet this deadline.

In addition, 80,000 new homes will be supported by Tube upgrades on the existing network.

Intensifying development around well-connected transport hubs is an important part of the Capital's future. We believe rail devolution would underpin this as it would enable us to run more services to support a truly integrated, connected and affordable city.

At present, east London is poorly served by river crossings, which restricts transport options on this side of the city. We will tackle this, starting with the Silvertown tunnel, which is due to open in the early 2020s. As part of the Mayoral review of east London river crossings, we are committed to delivering the fundamental change in new cross-river bus services that the Silvertown tunnel enables, and offering concessions to local residents to encourage take-up. We will also progress proposals for a new pedestrian and cycle crossing between Rotherhithe and Canary Wharf, and prioritise the case for a DLR crossing between Gallions Reach and Thamesmead.

The TfL Growth Fund is focused on helping boroughs with targeted and relatively small-scale transport infrastructure schemes that help to unlock growth and development opportunities. This includes a new ticket hall for the Northern line station at Elephant & Castle and the Fiveways project in Croydon (see p67).

The unallocated part of the fund, totalling £200m, will allow more of these schemes to be brought forward, subject to them meeting criteria including growth impact, deliverability and match funding from other sources. It could possibly make a contribution towards an extension of the tram network from Wimbledon to Sutton, should agreement on an acceptable business case and funding package be reached with the borough.

The new High Speed 2 and Crossrail station set to open at Old Oak Common in 2026 will help unlock development opportunities and enable the creation of tens of thousands of new homes and jobs for Londoners. We will work with the Old Oak and Park Royal Development Corporation to progress plans for a complementary package of transport investment in and around North Acton, Willesden Junction and Old Oak Common itself.

#### Raising more commercial revenue

By taking a fundamentally different approach, we are generating more non-fares income from our assets to reinvest in transport. Putting our land to better use for property development will generate £850m in revenue over the Business Plan period. But we must show greater ambition and go further.

Establishing a commercial trading arm will allow us to sell our expertise to other cities and transport operators in the UK and across the world, as well as use our iconic roundel and Tube map to drive new revenues. We will get more from our advertising – we own the most valuable outdoor advertising estate in the world – and plan to do more on digital advertising by using data to make sure campaigns reach the right people at the right time.

We will look to make more of our retail spaces at stations and on high streets, and exploit opportunities in our railway arches. We recognise that our tunnels and stations remain ‘not-spots’ for mobile coverage so are investigating new solutions to meet our customers’ needs and also generate income.

#### **Harnessing technology to make journeys better**

Our open data strategy has created a community of more than 10,000 developers, powering more than 500 apps that are used by 42 per cent of Londoners. Across our business, we are improving the way we use technology to reduce costs and realise greater benefits. Our new Technology and Data Strategy is shaping our approach.

Improvements are being made to the ways in which we buy or build technology. We are working on a plan to consolidate our telecommunication networks, including those that we run ourselves and those we buy in. In the

future, these networks can help generate more commercial revenue by providing a 4G network for public use.

We are global leaders in many technology areas, including ticketing and information provision, with our expertise sought by other transit operators in the UK and worldwide.

The number of people using contactless payments continues to rise. Thirty five per cent of pay as you go journeys on the Tube are now paid for with contactless bank cards. A new Oyster app will offer customers a more convenient way to top up, or check their balance and journey history. Top-ups will be available anywhere on the transport network, including buses, within minutes of purchase.

In addition:

- The Surface Intelligent Transport System programme will replace many of the critical systems we use to manage London’s road network. It will equip us with new technology fed by real-time data to make our operational decision-making quicker, leading to less disruption and congestion on the network
- A new partnership with Google on its Waze technology will see them use our open data, while we use their crowd-sourced data on road conditions to help us manage traffic around incidents and road closures

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**We are committed to promoting equality. We want to create an inclusive London that is open to all, where difference is celebrated and respected, and where everyone can thrive, regardless of their background or diversity**

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- We will continue to explore how data, technology and information provision can help manage peak demand for transport

We work hard to make sure our technology is accessible. Our websites are tested so that they meet important standards, such as those of the Web Accessibility Initiative. Our online Journey Planner also offers a range of travel options for everyone, including people with accessibility needs.

#### **Partnerships with boroughs and communities**

We are strengthening our relationships with the boroughs and working more closely than ever on joint programmes and towards shared goals. The boroughs will be integral to the delivery of our Healthy Streets programme. We are committed to maintaining funding for

Local Implementation Plans at existing levels. Plans will be policy-led and aligned to the new Mayor’s Transport Strategy and will provide solutions to local challenges.

As well as investing in town centres, we will engage with the boroughs to see how we can help London evolve to cope with the increased demand that residential and employment growth will bring, and how we can encourage the most efficient use of road space to move people and goods.

Together, we are working with developers and Business Improvement Districts to transform areas including Tottenham Court Road, Stratford, Baker Street and the Vauxhall gyratory.

#### **Diversity and inclusion**

We are committed to promoting equality. We want to create an inclusive London that is open to all, where difference is celebrated and respected, and where everyone can thrive, regardless of their background or diversity.

By providing safe and accessible transport, we enable a vast labour market in the Capital and beyond. We make sure Londoners can enjoy their rights to work and have a family life, and live with dignity and autonomy.

Our services must be safe, affordable and secure. We know people have different experiences depending on where they live, and those in deprived areas are disproportionately affected by health

and air quality issues. We will make sure our schemes and proposals take into account the needs of everyone.

We are prioritising action on issues that disproportionately affect some customers more than others. This includes our groundbreaking approaches to dealing with unwanted sexual behaviour and hate crime, improving the confidence of our customers to report issues and know that action will be taken.

We are offering customer information in even more languages and Easy Read formats and looking at whether there is more we can provide to help people better plan their journeys. We are in touch with grassroots groups across London to make sure they are aware of all our services.

And we will continue to consult and engage with our customers – particularly older and disabled people and those with hidden impairments – when designing and developing our policies and plans. By doing this, we can strive to remove any barriers faced by under-represented communities.

The ability for all people to travel spontaneously and independently is at the heart of our approach to accessibility. The new Mayor’s Transport Strategy will look beyond just physical infrastructure to address barriers such as overcrowding, safety and affordability.

Our commitment to equality and diversity must be reflected in our organisation, so our aim is to recruit, retain and develop a diverse workforce, and make sure our people have the opportunities to become the best they can be.

We recognise that engaging with young Londoners, schools and careers services is essential to address the impending skills shortage and challenge the gender stereotypes placed on girls and young women. Our schools engagement programme will continue to encourage young people to consider a future in the transport industry, and specifically at TfL.

As an internationally renowned STEM (science, technology, engineering and maths) business, we are well placed to lead this debate. We are launching a Diversity in STEM Advisory Board, made up of experts in the field, to make sure our approach is cutting edge and effective.

We will continue to increase the diversity of our graduates and apprentices by targeting our advertising, attending specific skills events and developing our current graduates and apprentices as ambassadors. We are working to increase diversity at senior levels and striving to reduce any gender pay gap.

By assessing people on their potential rather than their experience, we have significantly increased the number of black, Asian and minority ethnic (BAME) apprentices from 23 per cent in 2015 to 32 per cent in 2016 – and we expect that figure to rise. We will support this through a range of activities including engaging with schools in highly BAME populated boroughs, for instance Newham, Lambeth and Tower Hamlets. We are developing partnerships with girls’ schools specifically to boost the number of female apprentices.

We will also promote inclusive working practices by encouraging flexible hours, reasonable adjustments and initiatives such as our Steps into Work programme, which offers young people with learning disabilities the chance to gain valuable work experience within our organisation.

### The Elizabeth line

During the plan period, Crossrail construction will be completed and the new Elizabeth line will become a fully-fledged, operational railway. When the entire route opens at the end of 2019, our customers will benefit from the most significant increase in central London’s public transport capacity for decades, with the line carrying more than 200 million passengers a year.

The Elizabeth line is expected to generate more than £2bn in fares income over the next five years. This will support many other elements of our plan for modernising the transport system, while enabling new jobs and homes and stimulating growth.

	Forecast	Plan	Plan	Plan	Plan	Plan
Passenger journeys (millions)	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
TfL Rail/Elizabeth line	48	51	80	167	230	232

	Forecast	Plan	Plan	Plan	Plan	Plan
Fares revenue (£m)	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
TfL Rail/Elizabeth line	87	93	164	440	727	759



Elizabeth line trains being tested at Bombardier's factory in Derby

Construction is on schedule and within the £14.8bn funding. Over the next two years, the focus will be on fitting out the new stations and tunnels in the central section, and testing the infrastructure and trains to prepare for passenger services. Work will also continue to complete the upgrades to the existing network that are being carried out by Network Rail between Paddington and Heathrow/Reading, Liverpool Street and Shenfield, and at Abbey Wood.

The transition from a construction project to an operational railway that forms part of our core network will take place in five stages. The most significant will be the opening of the route between Abbey Wood and Paddington in December 2018, as this is when the railway becomes the Elizabeth line.

In December 2019, the Elizabeth line will open fully. Until the end of 2019/20, operating income and expenditure will be included in the Rail divisional financial summary. From 2020/21, they will be transferred to London Underground. Capital spend is included in Rail throughout the plan period.

#### Phased opening of the Elizabeth line

##### May 2017

The first new train enters TfL Rail passenger service between Liverpool Street and Shenfield

##### May 2018

The line opens between Paddington (National Rail) and Heathrow Terminal 4, replacing the existing Heathrow Connect service and part of the Great Western inner suburban service

##### December 2018

Services start between Paddington and Abbey Wood, Liverpool Street to Shenfield and Paddington to Heathrow Terminal 4

##### May 2019

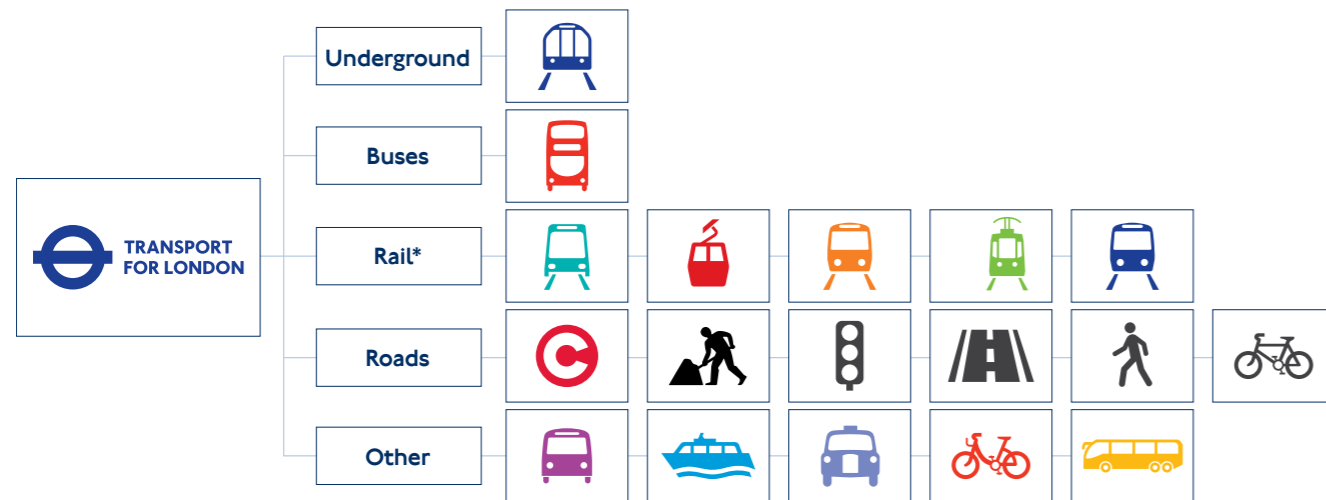
The Elizabeth line through-service extends from Shenfield to Paddington

##### December 2019

The new route is fully open and extends to Reading

# Business at a glance

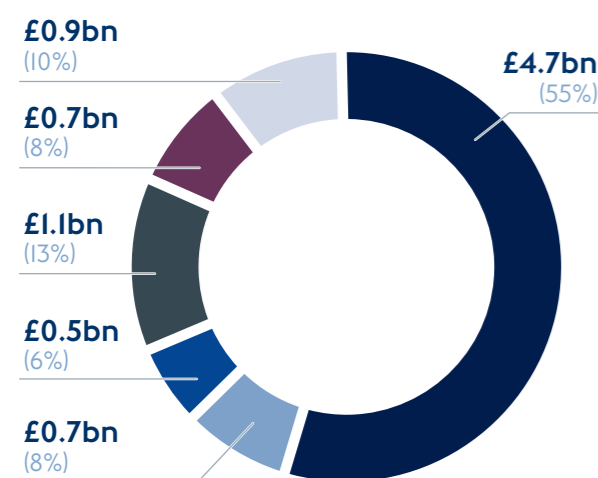
## How we report on our business



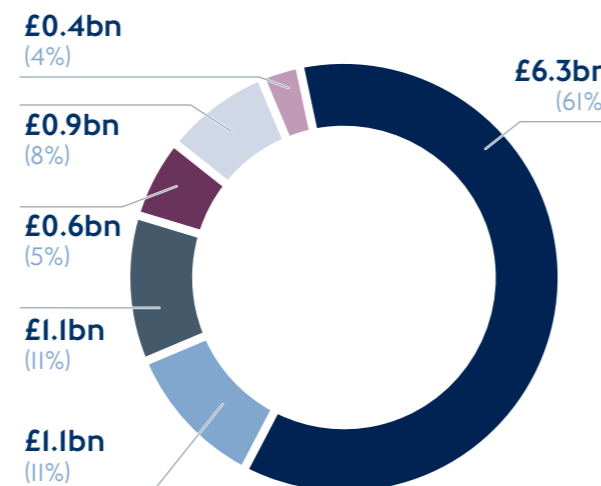
\* The Elizabeth line (Crossrail) is currently included in Rail. When operations are fully opened in 2019, it will move to Underground

## Sources of funding (excluding Crossrail construction)

2016/17 – projected



2021/22 – plan



Total: **£8.6bn**

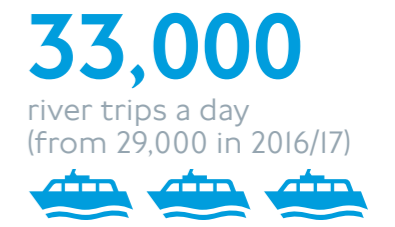
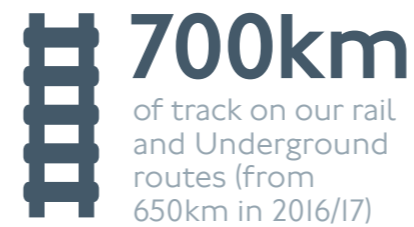
Total: **£10.4bn**

■ Fares ■ Other income ■ Revenue grants ■ Business rate retention  
■ Borrowing ■ Property income ■ Capital grants

\* The income graph on pg 34 only shows income on the operating account and therefore excludes capital grants, borrowing and property income

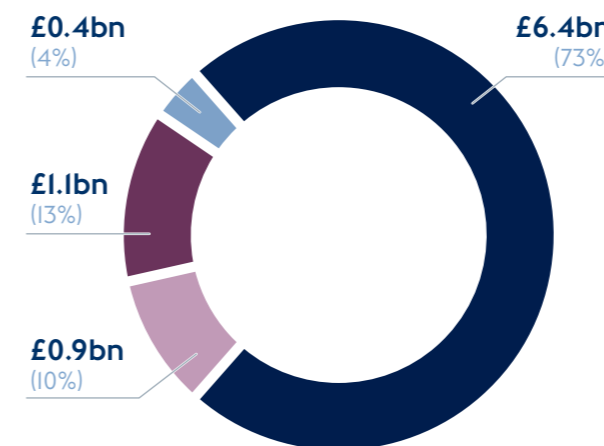
## Facts and figures

By 2021/22...



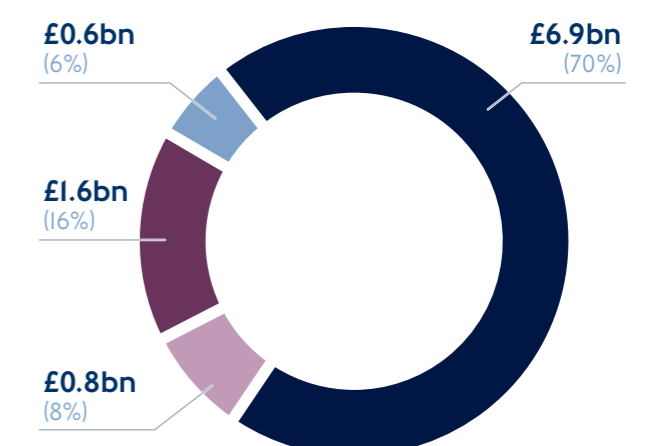
## Total costs (excluding Crossrail construction)

2016/17 – projected



Total: **£8.8bn**

2021/22 – plan



Total: **£9.9bn**

■ Operating costs ■ Net financing costs ■ Capital renewals ■ New capital investment

# Financial summary

Our core financial objective is to achieve break-even on the operating account – the income and costs of our day-to-day operations.

We aim to do this while safeguarding the Mayor's ambitious capital investment programme, which will improve the safety, capacity and reliability of transport for all Londoners.

By keeping operating costs close to current levels, we aim to achieve a position where our total income covers the total cost of operations, putting our finances on a solid and sustainable long-term footing.

Achieving this objective depends on two essential elements:

- The successful implementation of a comprehensive cost reduction programme
- Growing passenger numbers by making public transport increasingly affordable, reliable and accessible

## Operating account

TfL Group (£m)	Actual	Forecast	Plan	Plan	Plan	Plan	Plan
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Fares income	4,587	4,723	4,877	5,120	5,563	6,030	6,327
Other operating income	673	702	821	885	918	1,059	1,107
<b>Total operating income</b>	<b>5,260</b>	<b>5,425</b>	<b>5,698</b>	<b>6,005</b>	<b>6,481</b>	<b>7,089</b>	<b>7,434</b>
General grant	591	447	228	–	–	–	–
Business rates retention	773	854	854	854	854	854	854
Other revenue grants	73	57	73	55	37	6	6
<b>Total income</b>	<b>6,697</b>	<b>6,783</b>	<b>6,853</b>	<b>6,914</b>	<b>7,372</b>	<b>7,949</b>	<b>8,294</b>
Operating cost	(6,299)	(6,356)	(6,563)	(6,502)	(6,671)	(6,863)	(6,925)
<b>Net operating surplus</b>	<b>398</b>	<b>427</b>	<b>290</b>	<b>412</b>	<b>701</b>	<b>1,086</b>	<b>1,369</b>
Capital renewals	(853)	(857)	(659)	(737)	(728)	(767)	(753)
<b>Net cost of operations before financing</b>	<b>(455)</b>	<b>(430)</b>	<b>(369)</b>	<b>(325)</b>	<b>(27)</b>	<b>319</b>	<b>616</b>
Net financing costs	(346)	(363)	(413)	(453)	(483)	(517)	(556)
<b>Net cost of operations</b>	<b>(801)</b>	<b>(793)</b>	<b>(782)</b>	<b>(778)</b>	<b>(510)</b>	<b>(198)</b>	<b>60</b>

Our first milestone is to create a financial surplus in 2020/21, having accounted for the annual cost of capital renewals. Our second is to reach the point where the total cost of day-to-day operations, including the costs of financing, are fully covered by income. We aim to do this in 2021/22, after the second full year of operating the Elizabeth line.

To achieve our milestones we must increase the use of public transport in the short run, primarily by attracting customers back to the bus service. In the medium term, we must ensure the Elizabeth line opens on schedule and carries the projected 232 million passengers a year, resulting in £0.7bn

in fare revenue growth over the plan. This must be achieved while operating costs are held down by absorbing inflation and the additional costs of running the Elizabeth line.

Effective implementation of the cost reduction programme is also vital. To become the modern and efficient organisation that a rapidly growing London needs, we have begun a complete review of our business and ways of working. We are addressing unnecessary duplication, reducing management layers, and driving down the cost of what we buy from third parties. This programme is set out in more detail in the section on cost reduction.

## Capital account

TfL Group (£m)	Actual	Forecast	Plan	Plan	Plan	Plan	Plan
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
New capital investment	(1,561)	(1,100)	(1,322)	(1,344)	(1,284)	(1,584)	(1,620)
Crossrail	(1,506)	(1,597)	(987)	(360)	(101)	(17)	(12)
<b>Total capital expenditure</b>	<b>(3,067)</b>	<b>(2,697)</b>	<b>(2,309)</b>	<b>(1,704)</b>	<b>(1,385)</b>	<b>(1,601)</b>	<b>(1,632)</b>
<b>Financed by:</b>							
Investment grant	925	944	960	976	993	1,010	1,042
Property income	407	25	77	100	80	180	389
Borrowing	598	701	601	600	700	601	601
Crossrail funding sources	963	138	300	166	46	156	108
Other capital grants	132	141	214	199	109	82	69
<b>Total</b>	<b>3,025</b>	<b>1,949</b>	<b>2,152</b>	<b>2,041</b>	<b>1,928</b>	<b>2,029</b>	<b>2,209</b>
<b>Net capital account</b>	<b>(42)</b>	<b>(748)</b>	<b>(157)</b>	<b>337</b>	<b>543</b>	<b>428</b>	<b>577</b>

## Funded by:

TfL Group (£m)	Actual	Forecast	Plan	Plan	Plan	Plan	Plan
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Net cost of operations	(801)	(793)	(782)	(778)	(510)	(198)	60
Net capital account	(42)	(748)	(157)	337	543	428	577
Working capital movements	(521)	26	945	65	(24)	(21)	(79)
<b>(Decrease)/increase in cash balances</b>	<b>(1,364)</b>	<b>(1,515)</b>	<b>6</b>	<b>(376)</b>	<b>9</b>	<b>209</b>	<b>558</b>

The Mayor's capital investment programme is central to delivering the many schemes and initiatives described in the section starting on page 11.

In drawing up this plan, we have examined the capital programme carefully to identify a 'steady state' level of capital investment. This balances the vital need to maintain and improve transport with supporting London's growth and continued success.

Capital renewals is the cost of maintaining our network. Much of this spend takes place behind the scenes, but is essential to ensuring a safe and reliable service.

The summary operating account on page 26 shows an average level of capital renewals (the capital investment required to maintain the network) of some £750m a year. The capital account shows that, on average, we must invest £1.4bn annually in capacity, reliability and accessibility improvements across the network.

We have scrutinised all capital projects to see where costs can be reduced through value engineering, while continuing to deliver the outcomes required in full. We have also reviewed project timing to ensure the programme can be delivered.

The principal projects in progress over the next five years are shown below:

### On the Underground

- The completion and opening of the Elizabeth line
- A signalling upgrade on the Circle, District, Hammersmith & City and Metropolitan lines, creating 33 per cent additional capacity
- New trains and signalling on the Piccadilly line, providing 60 per cent extra capacity
- More capacity on the Victoria, Jubilee and Northern lines – 12 per cent in total
- Station upgrades at Victoria, Tottenham Court Road, Bond Street, Bank, Holborn and Camden Town, which will include step-free access
- Further major programmes to improve accessibility at many other Tube stations

### On roads, buses and rail

- The Silvertown tunnel, as part of a broader plan to deliver more river crossings in the east
- The London Overground extension to Barking Riverside as part of a wholesale regeneration of the area
- New trains for the DLR and London Overground to increase capacity
- The transformation of Oxford Street for pedestrians
- A large portfolio of smaller projects to encourage more walking and cycling and greater use of public transport. This includes progressing a pedestrian and cycle bridge between Rotherhithe and Canary Wharf

### Building for the future

- Crossrail 2, a northeast-to-southwest rail route to relieve congestion on lines into Waterloo
- An extension to the Bakerloo line
- A large number of housing and development projects to support the Mayor's ambitious housing agenda

## Passenger journeys analysis

Passenger journeys (million)	Actual	Forecast	Plan	Plan	Plan	Plan	Plan	Variance 2016/17-2021/22 %
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
London Underground	1,349	1,396	1,434	1,455	1,465	1,485	1,525	9%
London Buses	2,323	2,278	2,310	2,378	2,444	2,484	2,521	11%
DLR	117	123	128	128	122	119	124	1%
London Overground	184	196	209	227	254	268	282	44%
TfL Rail (including the Elizabeth line)	40	48	51	80	167	230	232	383%
London Trams	27	29	29	29	32	35	36	25%
Dial-a-Ride	1	1	1	1	1	1	1	0%
Emirates Air Line	2	2	2	2	3	3	3	117%
London River Services	10	11	11	11	12	12	12	14%
Cycle hire	10	10	10	11	11	11	11	8%
Walking	2,385	2,411	2,437	2,463	2,487	2,511	2,535	5%
Cycling	277	295	314	334	355	378	402	36%
Road (car driver)	2,200	2,200	2,200	2,200	2,200	2,200	2,200	0%
Taxi	140	142	143	145	146	148	149	5%
<b>Total</b>	<b>9,065</b>	<b>9,142</b>	<b>9,279</b>	<b>9,465</b>	<b>9,698</b>	<b>9,885</b>	<b>10,033</b>	<b>10%</b>

Trends in the number of passenger journeys are described in more detail in the operational trends section and the divisional summaries. However, the opening of the Elizabeth line is the single biggest development affecting capacity and passenger journeys. We

anticipate a five-fold increase in the number of journeys on what is currently known as TfL Rail, from 48 million a year today to 230 million by 2020/21, when the line will have been fully open for more than a year.

Growth in journeys on the Underground will be steadier as there will be some diversion of passengers when the Elizabeth line opens, particularly on the Central line. We are, therefore, expecting the total to rise by nine per cent over the period of the plan.

We have seen a decline in the number of passenger journeys on buses over the past year or so. However, as a result of our work to cut congestion and improve reliability, we expect customers to return gradually over the plan period, resulting in 11 per cent growth overall.

### Cost reduction programme

Under the guidance of the Mayor, we are carrying out a comprehensive review of our organisation, and have identified a number of areas where costs could be reduced without affecting day-to-day transport services, safety or the capital programme. We have consolidated this work into a TfL-wide transformation programme that has three elements:

- Receiving better value from our supply chain
- Ensuring our organisation is lean and efficient
- Creating a culture and ways of working to support a single, integrated organisation that is commercially-minded and agile

# £2bn

of savings from improving procurement and renegotiating contracts



# £2bn

of savings across the plan years from a new TfL operating model





### Value

Each year, we spend in excess of £6bn with our suppliers. We believe that we can achieve better value from this supply chain by improving procurement, renegotiating contracts and continually challenging the standards and scope of works we specify. We anticipate that, through rationalisation, consolidation and improved contract management, we will make substantial savings across a wide range of current contracts.

We have already begun to reduce costs and have identified further commercial opportunities over the next five years. We are in the process of negotiating further savings by:

- Consolidating facilities management contracts
- Exiting expensive legacy Private Finance Initiative and Public Private Partnership contracts
- Driving best practice through our maintenance contracts
- Consolidating our head office accommodation
- Seeking to bring together functional teams that have previously been dispersed across TfL, for instance engineering and capital delivery
- Forensically examining a huge range of supplier contracts that represent more than 68 per cent of our total costs

In total, we have identified some £2bn of potential savings across all of the areas mentioned.

### Organisation

We are re-evaluating every area of our business and considering how to merge functions to create efficiencies, reduce management layers and eliminate duplication in line with a new operating model. We expect the redesigned model to deliver £2bn of savings across the plan years.

### Culture

It is vital that our transformation programme leads to permanent cost reductions so we can achieve the milestones described in the financial summary, and make the business sustainable in the medium and long term. We cannot allow costs to creep back upwards; we must drive revenue up and continue to keep costs down. This is the beginning of a culture change programme that will instill a more commercial mind-set, develop more collaborative ways of working and encourage greater innovation and creativity.

We are determined to develop a more diverse and inclusive employee group as we believe this is essential to the success of a renewed TfL.

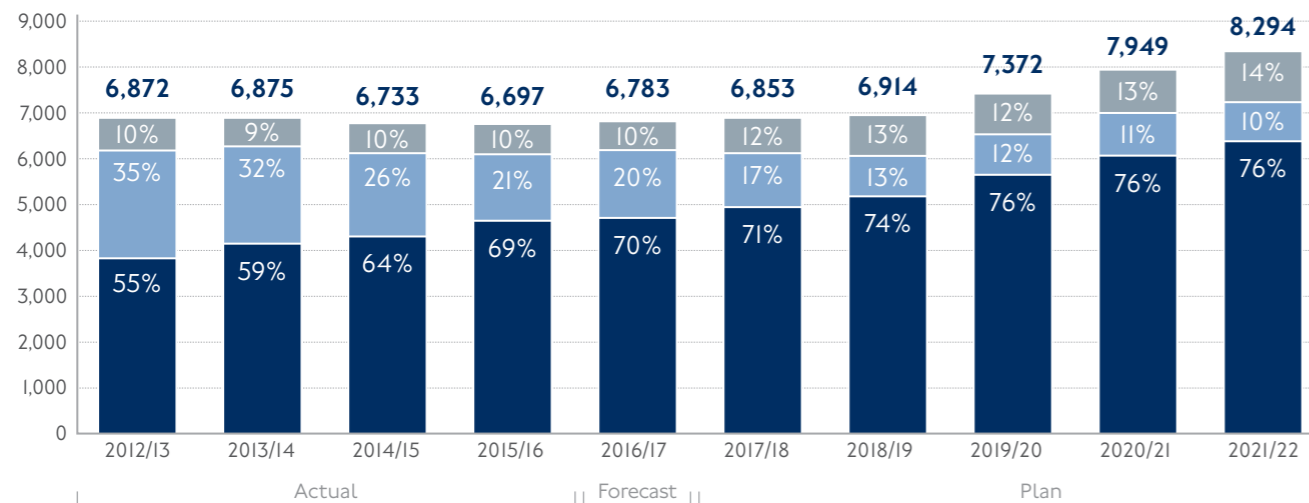


Walk-through trains will provide more capacity

# Financial trends

We want to make our finances more transparent and easier to understand.

**Total income**  
(£m)



■ Fares income    ■ Revenue grants    ■ Other income

Over the 10-year period from 2012/13 to 2021/22, the proportion of total income generated by fares will have grown from 56 per cent to 76 per cent. We are committed to making public transport in London more reliable, accessible and affordable, so the growth from 2017/18 relies on increased use rather than fare rises. The proportion of grant income will have decreased from 35 per cent to 10 per cent over the same period.

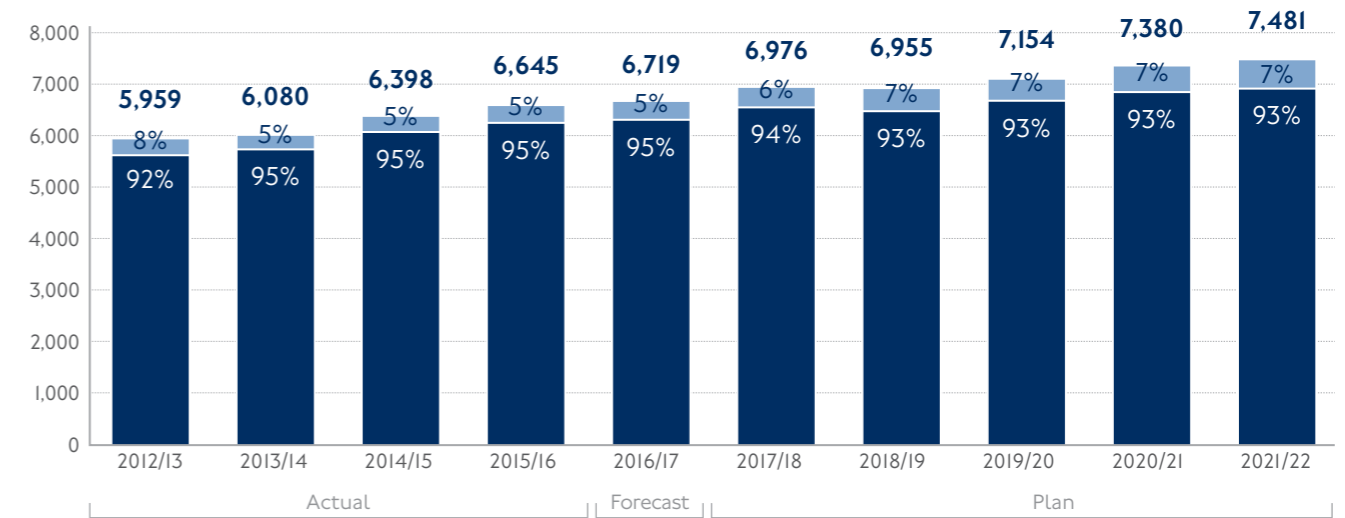
Fares income is primarily driven by greater use of public transport, of which a significant proportion will come from the opening of the Elizabeth line. Over the first two quarters of 2016/17, the number of fare-paying bus passengers was five per cent down on last year, owing to:

- Extensive construction projects

- Increased congestion caused by a proliferation of major road projects
- Urban improvement schemes
- A huge rise in the number of private hire vehicles
- London's population growth, which has increased freight delivery and other traffic levels

We must attract customers back on to our buses with a more reliable and affordable service, and by moderating the volume of roadworks. This is vital because fares income represents, proportionately, a greater slice of total income over the coming years as the general grant from central Government is reduced to zero.

**Total costs**  
(£m)



■ Operating costs    ■ Net financing costs

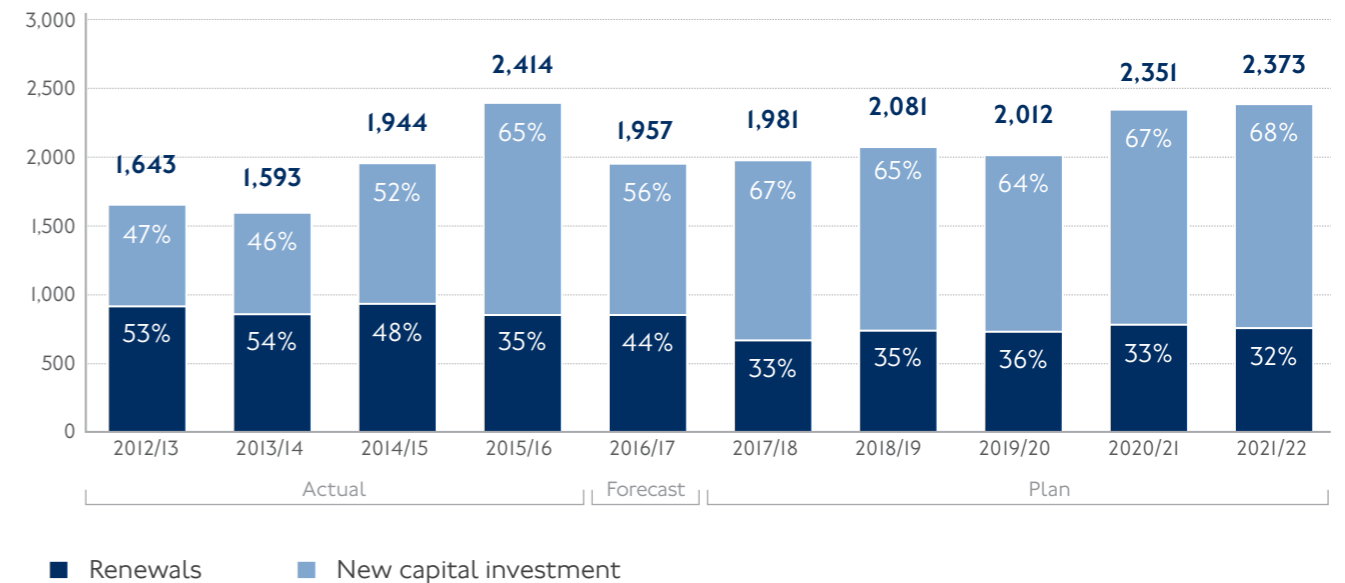
This financial plan depends on the successful delivery of a major cost reduction programme. To achieve our financial milestones and maximise the benefit of the increase in income, we must hold costs down.

In 2016/17, we expect our outturn operating costs to be £6.4bn and we are planning that, by 2021/22, they will be no more than £6.9bn. This rise – just nine per cent – includes both inflation and the increased costs of operating the Elizabeth line, which are offset by savings. We will only achieve this ambitious target if we fully implement the transformation programme.



Charing Cross station entrance, Trafalgar Square

### Capital expenditure (excluding Crossrail) (£m)



Details of the individual elements of the new capital investment programme are set out in the divisional summaries and appendices. However, the high-level summary of capital expenditure in this plan is that:

- We have established an equilibrium level of capital renewals, of £730m per annum on average, over the next five years
- We are planning for a financially sustainable level of new capital investment of £1.4bn a year, on average

Very large single projects such as the Elizabeth line, Crossrail 2, Bakerloo line extension and the Silvertown tunnel need to be considered in addition to this normal level of expenditure, as they cannot be financed from current sources of funds.

# 44%▲

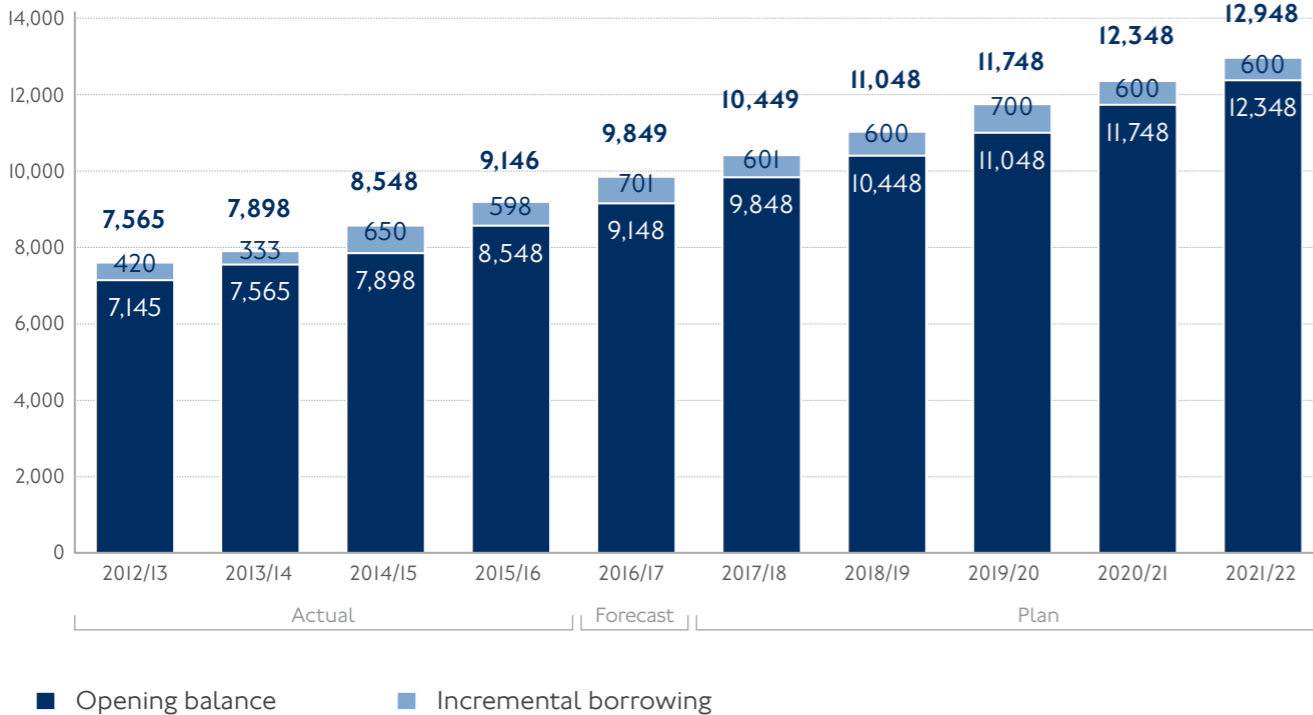
Total increase in capital expenditure since 2012/13

# £2.4bn

Capital expenditure in 2021/22

# Borrowing and cash

**Total nominal value of borrowing (£m)**



Our direct debt (excluding finance leases) is expected to reach £9.8bn by the end of 2016/17. It is then expected to increase by between £600m and £700m year-on-year, reaching £12.3bn by the end of 2020/21. The total incremental borrowing to be raised by March 2021 is in accordance with the agreement reached with HM Treasury as part of the 2015 Spending Review.

Our Business Plan assumes we will raise an additional £600m in debt in 2021/22. Borrowing to be raised over the plan period will be used to finance our investment programme, including capacity and station upgrades on London Underground, new rolling stock for the Elizabeth line and investments in cycling infrastructure.



Tottenham Court Road Tube station

# Operational trends

## Passenger journeys

**4.7bn** passenger journeys anticipated by 2021/22\* **16%▲** increase in passenger journeys from 2016/17\*

### London Underground (including the Elizabeth line)



### Buses



### Rail (DLR, London Overground, London Trams and the Emirates Air Line)



\* Excluding walking, cycling, car, taxi and other journeys. For details, see the table on p30

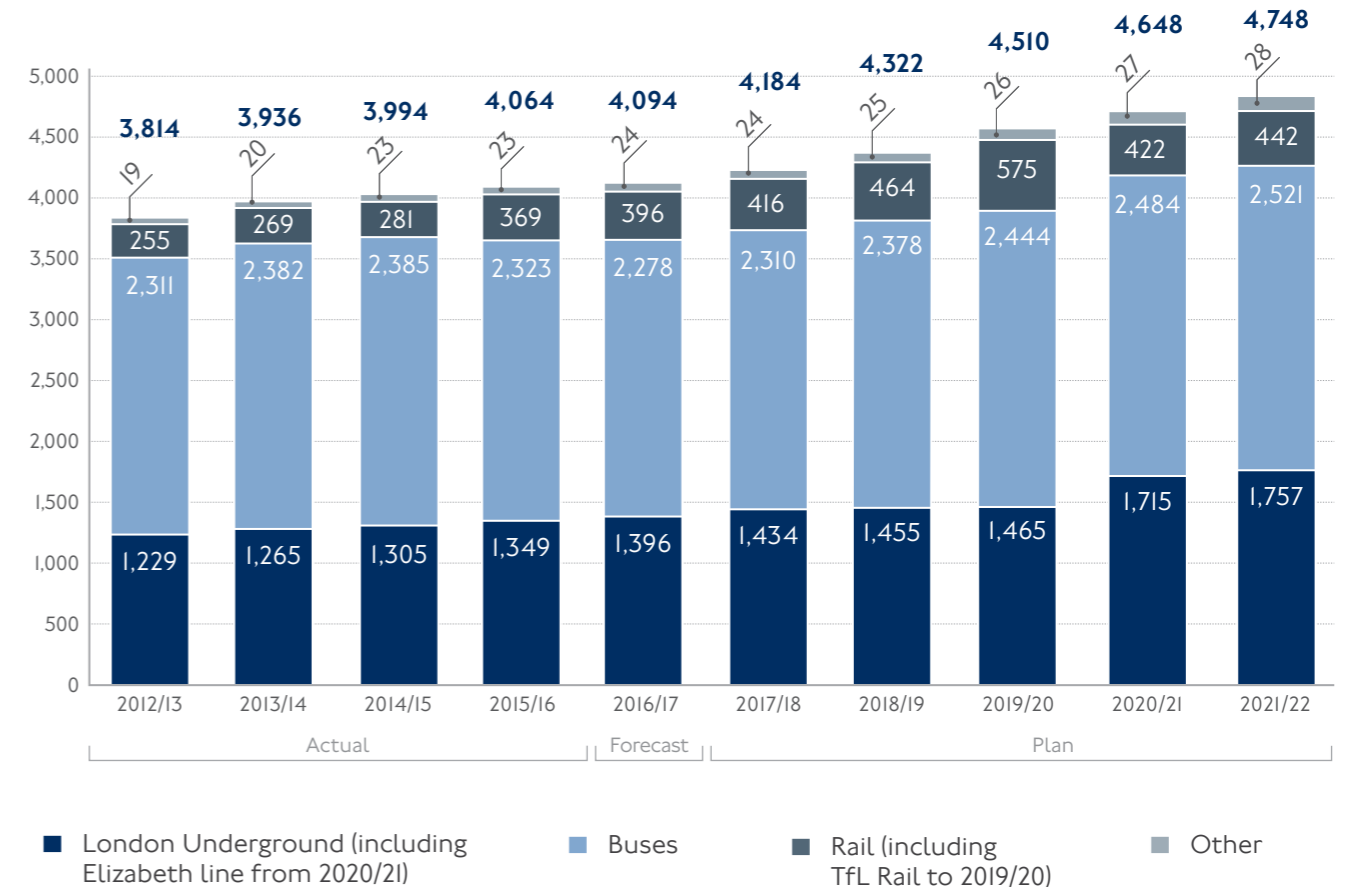
The increase in passenger numbers on London Underground is a result of demand driven by a rising population, which will be accommodated through capacity upgrades. Growth will flatten from 2017/18 owing to the new capacity provided by the Elizabeth line. This is also likely to affect the DLR.

We will restore bus ridership levels by enhancing the quality of services through better bus priority and

network reliability, and will continue to constantly rebalance services as demand changes.

DLR passenger volumes are expected to increase in line with economic growth in the Docklands. London Overground numbers are forecast to rise as a result of investments in new trains and improved service frequencies and, towards the end of the plan period, the extension to Barking Riverside.

## Passenger journeys (millions)



Passenger numbers on TfL Rail/the Elizabeth line are anticipated to rise in line with the service's phased opening from 2019.

On London Trams, passenger volumes are expected to increase in the long term as new trams and improved frequencies support the Croydon town centre redevelopment. We are seeking to maintain existing performance levels on Dial-a-Ride.

We also expect river passenger volumes to continue rising, as seen in recent years, to reach 12 million customers a year by 2019/20.

Continued investment in cycling overall, and wider population growth, will result in a modest year-on-year increase in cycle hire.



Circle and Hammersmith & City line platform at King's Cross St. Pancras station

# Underground

We support around five million journeys on London Underground every day.

## What customers can expect

During the morning and evening peaks, there are more than 540 trains serving 270 stations on the Underground network.

The Tube connects millions of Londoners to employment, education, homes and social and leisure opportunities across the city. Over the next five years we will be making vital improvements so that we can continue to deliver the safe, reliable, world-class Tube service that our customers deserve.

Our first priority is renewing our tracks, trains, bridges, tunnels, lifts and escalators, signals and stations. As ridership grows, and more is expected from the Tube network, we need to make sure our infrastructure and equipment are in good condition. Much of this work takes place behind the scenes, but it is essential to keep our 153-year-old network running safely and reliably.

Projects to increase capacity are the most significant improvements we can make. We will focus on expanding capacity at locations with known crowding problems and will upgrade lines serving busy destinations. Our customers will see better trains, shorter waiting times and more frequent services.

By the end of 2016, the District line will be completely served by new, air-conditioned, walk-through trains that have 10 per cent more capacity and dedicated wheelchair spaces. They are already in service on the Circle, Hammersmith & City and Metropolitan lines. We will complete the extension of the Northern line and begin consultation on a Bakerloo line extension.

9%▲

capacity increase across the Tube network by the end of 2021/22



Frequency of trains in the peak on the Victoria line, by 2017

530 million

train kilometres run over the Business Plan period



## Operational performance in the future

	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>London Underground forecasts</b>						
Passenger journeys (millions)	1,396	1,434	1,455	1,465	1,485	1,525
Customer satisfaction (score)	85	85	85	85	86	86
Excess journey time (minutes)	4.3	4.3	4.3	4.3	4.2	4.2
Lost customer hours (millions)	20.0	19.3	19.3	19.2	19.1	19.1
Operated km (millions)	84.5	86.3	87.5	88.8	89.4	92.0

Demand for rail services in London continues to rise, and on the Underground we are carrying more passengers than ever before. Over the Business Plan period, we will continue to maximise our capacity, running nine per cent more kilometres in 2021/22 compared with 2016/17.

Our customers remain at the heart of everything we do. In 2015/16, London Underground achieved a record-breaking customer satisfaction score of 85. Over the next six years we aim to build on this by running our services more reliably and working on known problem areas for customers, pushing scores up to 86 in 2020/21.

## Financial summary London Underground

	Forecast	Plan	Plan	Plan	Plan*	Plan*
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>£m</b>						
Fares income	2,667	2,766	2,853	2,932	3,761	3,947
Other operating income	177	194	204	205	241	255
<b>Total operating income</b>	<b>2,843</b>	<b>2,960</b>	<b>3,057</b>	<b>3,137</b>	<b>4,002</b>	<b>4,202</b>
Direct operating cost	(2,207)	(2,292)	(2,154)	(2,204)	(2,645)	(2,638)
Indirect operating cost	(430)	(434)	(377)	(378)	(390)	(383)
<b>Net operating surplus</b>	<b>206</b>	<b>234</b>	<b>526</b>	<b>555</b>	<b>967</b>	<b>1,181</b>
Capital renewals	(491)	(318)	(319)	(379)	(400)	(456)
New capital investment	(650)	(741)	(745)	(619)	(889)	(1,065)
<b>Total capital expenditure</b>	<b>(1,141)</b>	<b>(1,059)</b>	<b>(1,064)</b>	<b>(998)</b>	<b>(1,289)</b>	<b>(1,521)</b>

\* The Elizabeth line is included in these figures from April 2020

Fares income will increase from £2.7bn in 2016/17 to £4bn by 2021/22, a rise of 48 per cent. This is a result of greater demand, particularly following the opening of the Elizabeth line from late 2019, which will add 10 per cent more capacity to London's rail network.

Our direct operating costs for the first three years of the plan average £2.2bn and remain largely flat year-on-year, despite Tube services increasing by five per cent (excluding the Elizabeth line). An extensive modernisation programme to transform the Underground into a modern and efficient service has begun. This will cover all aspects of operations, including reviewing our organisation structures to reduce management layers,

eliminate duplication and modernise our ways of working. Direct operating costs will rise from 2020/21 onwards as the Elizabeth line opens for a full year.

Net operating surplus will grow from £0.2bn to £1.2bn over the plan period. During the last four years of the Business Plan, the surplus will fully fund the investment in capital renewals on the Underground.

Total capital expenditure is, on average, £1.2bn a year. Towards the end of the plan period, it will increase back up to £1.5bn. This is mainly as a result of the deep Tube upgrade programme, for which spend will occur in the final two years of the Business Plan.

## Safety and security

	Forecast	Plan	Plan	Plan	Plan	Plan
Safety and security measures	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Recorded crimes per million passenger journeys – LU and DLR	7.6	7.4	7.3	7.0	6.1	6.0

We operate one of the safest metros in the world. The health and safety of our customers, people and contractors is our top priority every day; it is central to everything we do. We are updating our overall health and safety strategy and trialling new initiatives. One example is the new safety markings on escalators and platforms, to reduce customer incidents.

Over the past decade, there has been a sustained reduction in crime on London Underground – 2014/15 saw the lowest

levels on record. We have, however, seen a slight increase in the past year and believe this is a result of our efforts to encourage more customers to report incidents, especially unwanted sexual behaviour, and the recording of more low-level violence. This is an important priority and we will continue our work with the BTP, to give everyone the confidence to report criminal, offensive and antisocial behaviour, and know it will be dealt with.

## Capital expenditure programmes

As well as investing in keeping our network running, we will make significant improvements through our line and station upgrades.

### Line upgrades

- On the Circle, District, Hammersmith & City and Metropolitan lines, 32 trains an hour will run on some sections (currently the highest is 27). Due to be completed by 2022, this will add an extra 33 per cent capacity. We have now completed the introduction on the District line of new air-conditioned, walk-through trains that have 10 per cent more capacity and dedicated wheelchair spaces. These are also in service on the Circle, Hammersmith & City and Metropolitan lines
- On the Jubilee and Northern lines, we will boost capacity by 17 per cent and 20 per cent respectively. The Jubilee line upgrade will be complete in 2020, and the Northern line will be finished in 2023
- In 2017, we will introduce 36 trains an hour in the peak on the Victoria line
- Capacity-boosting works will begin on the Piccadilly, Bakerloo, Central and Waterloo & City lines. The Piccadilly line will be upgraded first with new signalling and trains, increasing capacity by 60 per cent. The re-signalling work will start in 2020, with new trains arriving from 2023

### Major station upgrades

- Bank station is used by more than 100,000 passengers a day and is an important interchange. In 2017, we will build a step-free entrance to the Waterloo & City line on Cannon Street. By 2021, when the work will be completed, we will create more capacity on platforms, stairs and concourses with a new platform tunnel for the Northern line
- The upgrade to Bond Street station, which accommodates more than 150,000 people a day (expected to rise to more than 225,000 when Elizabeth line services start running), will be completed in 2017. This will provide more capacity and step-free access, and make it easier for customers to change between services, including the Elizabeth line. There will also be a new entrance to the north side of Oxford Street on Marylebone Lane
- Victoria station serves more than 200,000 customers a day and will be completed in 2018. It is overcrowded on most weekday mornings, meaning people have to be held at entrances. The refurbished northern ticket hall will be the first element to open and will provide 40 per cent more capacity and step-free access to platforms
- We are improving interchanges at Finsbury Park, a station used by more than 80,000 people a day. Step-free access will connect the National Rail station to the Tube station, making journeys easier for all customers





Work on the extension of the Northern line from Kennington to Battersea

Further work to improve and extend the London Underground network is set out below.

### Key projects/programmes

#### Increasing accessibility

We need to do more to make the Tube accessible to everyone. We will develop a much more ambitious step-free access programme, which will increase the proportion of fully step-free stations to more than 40 per cent by 2021/22.

#### Additional station upgrades

Towards the end of the plan, work will begin to upgrade Camden Town and Holborn stations.

#### Northern line extension

We will also expand our network through the extension of the Northern line from Kennington to Battersea. This will support regeneration in the area, including 25,000 new jobs and more than 20,000 new homes. Works on tunnels and excavations have begun and when it opens in 2020, the extension will accommodate up to 30 trains an hour in the peak.

#### Reducing our energy use and carbon footprint

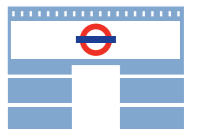
We are upgrading our power station at Greenwich to produce greener power and deliver significant electricity and carbon savings. We are also working to reuse waste heat from the Tube to support new heat networks such as the planned Bunhill project, which will use excess energy from Northern line tunnels to warm 454 homes. We will build on this by introducing further schemes that exploit Tube waste heat, using our land and assets for new low-carbon energy generation, and working alongside TfL's other business areas on energy storage technology to save costs and encourage the growth of electrified transport in London.

**80,000**

new homes across the Capital will be supported by our Tube upgrades



**100+**



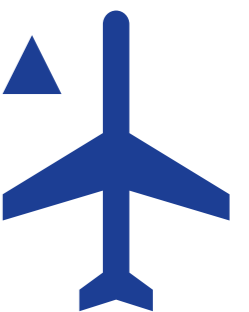
step-free stations on the Underground network by the end of 2021/22

**120**

new ticket machines by 2021/22

**50%**

more capacity to Heathrow, owing to the Piccadilly line upgrade, by the mid 2020s



# Buses

Every year, there are 2.3 billion bus trips, making buses the most used form of public transport in London.

## What customers can expect

Flexibility in our services means we can better serve areas of significant growth and address, for instance, any drop in demand on routes alongside improved rail corridors.

Our buses will be modernised so they are among the least polluting in the world, with all of them meeting or exceeding the toughest air quality standards. We will have one of the world's largest zero-emission fleets comprising pure electric and hydrogen vehicles. We are introducing Low Emission Bus Zones to target the areas with the poorest air quality and the new Silvertown tunnel will be among these zones. It will support new, cleaner buses that are vital to improving travel and encouraging growth in east London.

Bus priority measures will continue to be implemented to reduce passenger journey times and make our services even more efficient.

Ensuring the safety of customers is our absolute priority. We will introduce a new bus safety standard and are investigating installing Intelligent Speed Assistance technology on all new vehicles so they cannot exceed the given speed limit.

We plan to make changes to enable the transformation of Oxford Street, reflecting the opening of the new Elizabeth line, while maintaining connectivity and services in the locality. This will be balanced by improving services in growth areas, such as Barking Riverside. The overall scale of the bus network (measured by service volume) will be maintained at approximately 500 million kilometres a year.

We will provide a better service for all customers by improving bus stop accessibility, enhancing bus stations and continuing our customer service training for all drivers across the network. In addition, we are committed to a fair reward for the challenging job of being a bus driver and have begun working with operators to achieve this.

# 95%

of households in London are within a five-minute walk of a bus stop



# 9,000

accessible buses on approximately 700 routes, serving 19,000 stops



# 500 million

kilometres operated by buses in a year



# 63%▲

increase in bus passengers since 2000/01



Tottenham Hale bus garage

## Operational performance

Bus measures	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Service volume (million km operated)	496	497	497	497	497	497
Bus passenger journeys (millions)	2,278	2,310	2,378	2,444	2,484	2,521
Bus excess wait time - high frequency routes (minutes)	1.1	1.1	1.1	1.1	1.1	1.1
Bus customer service satisfaction score (points)	86	86	86	86	86	86

The total number of passenger journeys is expected to rise steadily over the plan. We will re-distribute resources to meet changing demand, maintain network reliability and improve journey times.

We measure bus service reliability by excess wait time (EWT). We have set a target of 1.1 minutes throughout the plan and aim to achieve this with continued investment in bus priority infrastructure and operational efficiencies.

Our annual target customer satisfaction score of 86 points is in line with a stable EWT and service volume.

## Financial summary

### Buses

£m	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Fares income	1,503	1,535	1,596	1,661	1,717	1,797
Other operating income	46	46	46	46	48	48
<b>Total operating income</b>	<b>1,550</b>	<b>1,581</b>	<b>1,642</b>	<b>1,707</b>	<b>1,765</b>	<b>1,845</b>
Direct operating cost	(2,082)	(2,120)	(2,187)	(2,245)	(2,382)	(2,412)
Indirect operating cost	(71)	(67)	(59)	(62)	(63)	(64)
<b>Net operating deficit</b>	<b>(604)</b>	<b>(606)</b>	<b>(604)</b>	<b>(600)</b>	<b>(680)</b>	<b>(631)</b>
Capital renewals	(13)	(14)	(30)	(23)	(42)	(39)
New capital investment	(69)	(29)	(26)	(35)	(12)	(1)
<b>Total capital expenditure</b>	<b>(82)</b>	<b>(43)</b>	<b>(56)</b>	<b>(58)</b>	<b>(54)</b>	<b>(40)</b>

We plan to get people back on the network by reducing bus delays caused by congestion and investing in modern vehicles, driver training and safety enhancements. We will continue to make the best use of our capacity so that we can boost bus routes in growth areas. As a result, we expect fares income to increase at an average rate of four per cent a year.

There continues to be a competitive market for bus operator contracts, ensuring efficient service provision. Greener vehicles will be introduced by our bus operators and this is accounted

for within our operating costs. It allows us to hold the net cost of operations broadly flat over the Business Plan, with the exception of the one-off increase in 2020/21, when a significant number of new green buses will be unveiled.

New capital investment will be reduced significantly as we discontinue purchases of New Routemaster buses. We will carry on investing in the fleet however, by retro-fitting 3,000 vehicles with Euro VI standard emission technology by 2020.

## Safety and security

	Forecast	Plan	Plan	Plan	Plan	Plan
Safety and security measures	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Recorded crimes per million passenger journeys - bus network	7.7	7.6	7.4	7.2	7.1	7.0

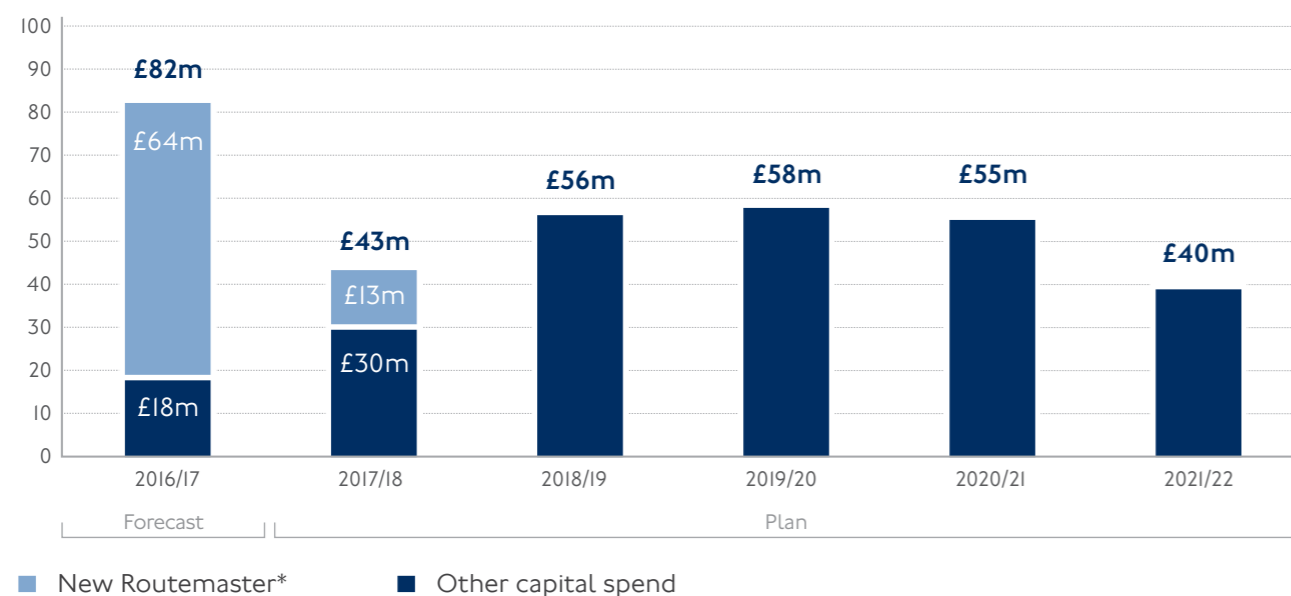
Crime on the bus network has more than halved over the past 10 years and we are committed to driving it down further.

We will continue to fund and work alongside the Metropolitan Police Service (MPS) Roads and Transport

Policing Command to prevent crime, antisocial behaviour and fare evasion. Safer Transport Teams, operating across London, will carry on providing local and accessible policing for bus passengers, employees and communities.

## Capital expenditure programmes

### Bus capital expenditure



\* Capital spending on New Routemasters ordered in February 2016. No further orders for the bus will be made

The programme to support the bus network includes the three projects detailed below.

### Key projects/programmes

#### Reducing air pollution from our bus fleet

To support the introduction of the ULEZ from 2019, all double-decker buses operating in the Congestion Charging zone will be hybrid electric vehicles, and all single-deckers in the zone will emit nothing from their engine exhaust (ie they will be fully electric or hydrogen models).

We will introduce 12 Low Emission Bus Zones. We are also expanding an innovative Euro VI bus retro-fit programme to 5,000 vehicles in line with the ULEZ, so all of London can benefit from the cleanest buses.

#### Bus station improvements

We are carrying out vital works to upgrade Kingston Cromwell Road bus station. We will also review and enhance other station facilities during the period covered by this Business Plan.

#### Bus priority

In 2017/18, we will spend £23m on bus priority measures to make sure buses continue to run reliably in London. By 2021/22, bus priority investment will provide the infrastructure needed for a high quality, reliable public transport network that sustains a growing city. Bus priority schemes implemented as part of this Business Plan will also support the introduction of Low Emission Bus Zones and improve passenger journeys in central London. Measures will be funded as part of the Healthy Streets programme.

# 25,000

bus drivers will receive enhanced training



# 95%

of all bus stops will be accessible by 2017



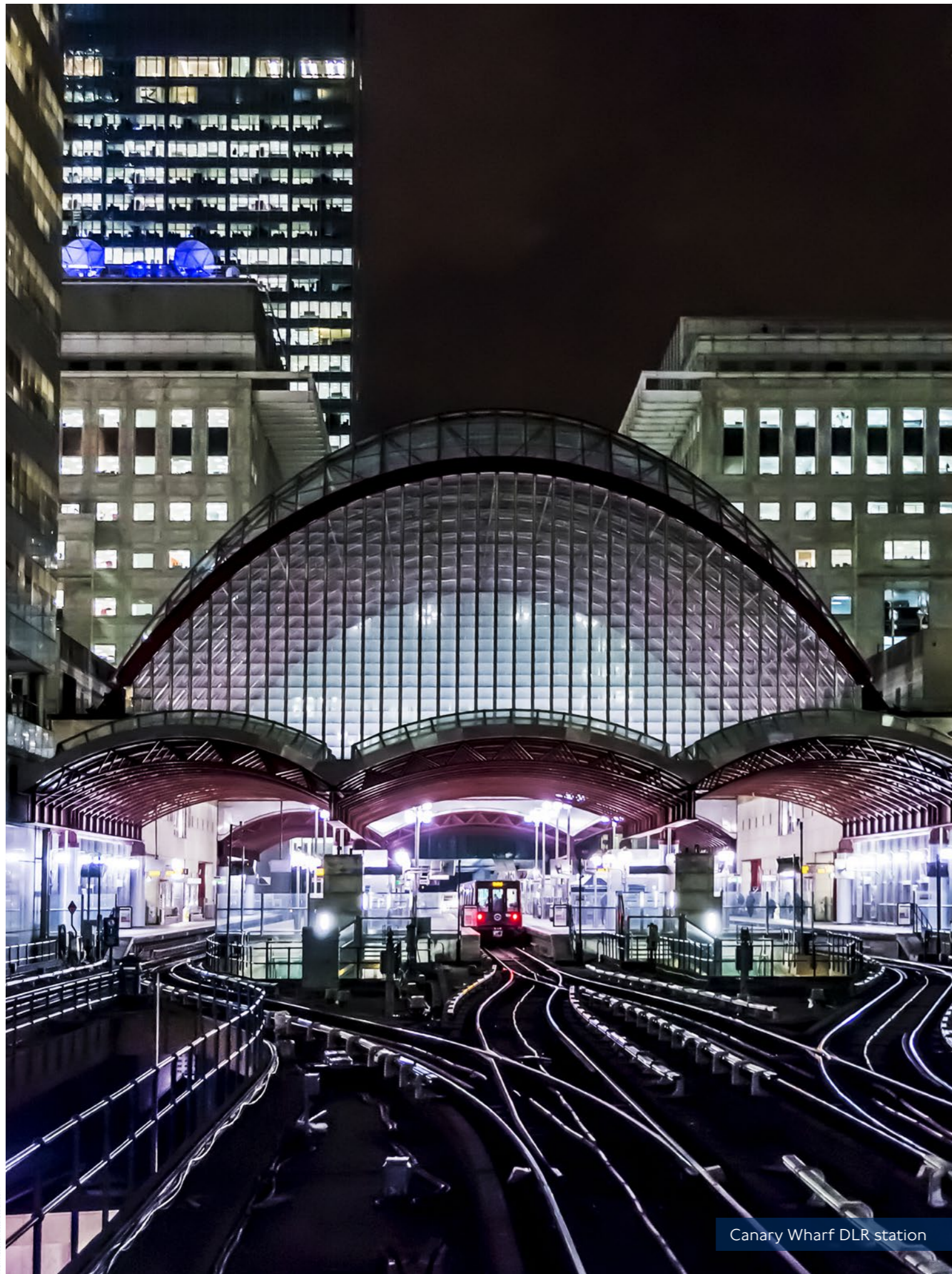
# 50%

of London's growth will be in opportunity areas\*. To reflect this we are revising bus services while maintaining the total level of operated kilometres



We will protect reliability and improve journey times

\*The London Plan, 2011



Canary Wharf DLR station

# Rail

Our rail services incorporate the DLR, London Overground, London Trams, TfL Rail and the Emirates Air Line.

**What customers can expect**

We are seeing unprecedented demand and are expanding into new areas, ensuring that London is open to the wider South East region.

Passenger numbers on the London Overground, DLR and London Trams have been increasing consistently, and this is expected to continue over much of the Business Plan period. We will invest in these services by:

- Providing 45 new London Overground trains and extending the service to Barking Riverside
- Electrifying Gospel Oak to Barking on the London Overground to enable higher capacity, more environmentally-friendly trains to run
- Improving safety, capacity and reliability on the London Trams network

We will continue to make the case to the Government to transfer the southeast London suburban rail franchises to TfL so that we can extend London Overground's exemplary performance model to more of south London.

**585,000**

people carried by the Overground on a typical weekday (five times more than in 2007)



**167**

route kilometres covered by London Overground

**117 million+**

passengers carried by the DLR network in 2015/16



**28km**  
of track on the London Trams network

## Operational performance

	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Passenger journeys (million)</b>						
London Overground	196	209	227	254	268	282
DLR*	123	128	128	122	119	124
London Trams	29	29	29	32	35	36
Emirates Air Line	2	2	2	3	3	3
<b>Total</b>	<b>350</b>	<b>368</b>	<b>386</b>	<b>411</b>	<b>425</b>	<b>445</b>

\* DLR journeys are expected to fall in 2019/20 owing to the effect of the full opening of the Elizabeth line

	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Customer satisfaction (points)</b>						
London Overground	84	84	85	85	85	85
DLR	89	88	88	89	89	89
London Trams	89	89	89	89	89	89
Emirates Air Line	93	93	93	93	93	93

Rail passenger journeys are forecast to rise in the long term owing to service increases, although it is expected that the opening of the Elizabeth line will impact journey numbers in the short term.

## Financial summary

### Rail (with TfL Rail to March 2020)

	Forecast*	Plan*	Plan*	Plan*	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>£m</b>						
Fares income	520	552	650	949	534	565
Other operating income	28	32	45	44	21	21
<b>Total operating income</b>	<b>548</b>	<b>584</b>	<b>695</b>	<b>993</b>	<b>555</b>	<b>586</b>
Direct operating cost	(553)	(592)	(792)	(931)	(533)	(548)
Indirect operating cost	(34)	(33)	(29)	(30)	(31)	(31)
<b>Net operating (deficit)/surplus</b>	<b>(39)</b>	<b>(41)</b>	<b>(126)</b>	<b>32</b>	<b>(9)</b>	<b>7</b>
Capital renewals	(139)	(149)	(153)	(108)	(81)	(44)
New capital investment	(137)	(281)	(296)	(132)	(95)	(25)
<b>Total capital expenditure</b>	<b>(275)</b>	<b>(430)</b>	<b>(449)</b>	<b>(240)</b>	<b>(176)</b>	<b>(69)</b>

\* TfL Rail/Crossrail is included in the net operating result until 31 March 2020. Thereafter, it is included in Underground's figures

Total fares income will increase every year to 2019/20 as TfL Rail is extended during the phased opening of the Elizabeth line. When it becomes fully operational, income and associated costs will be transferred to the London Underground division.

Fares income (excluding TfL Rail) will rise by 30 per cent as a result of more investment plus new and improved London Overground, DLR and tram services. The increase in services will

see an expected 22 per cent rise in operating costs during the same period. It means that, over the life of the Business Plan, rail services will begin to cover their own operating costs.

The profile of capital expenditure reflects the continuing annual renewals programmes, at an average of £107m a year, plus the full cost of the investment in the Elizabeth line, the Barking Riverside extension and new DLR rolling stock.

## Safety and security

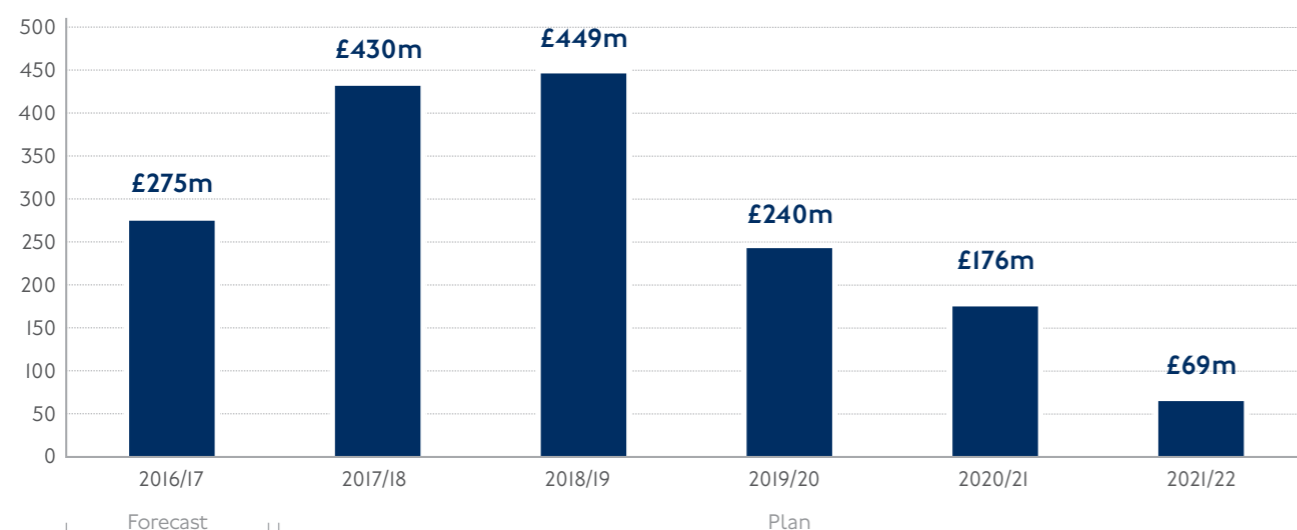
Safety and security rail measures	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Recorded crimes per million passenger journeys	6.3	5.9	5.4	4.9	4.6	4.4

We are proactively investing in infrastructure and other improvements, and are ensuring that safety and security are considered in the planning and design of all services. After many

years of safe operation on our network, the tragic major incident at Sandilands in November served as a reminder that a continued focus on safety is paramount.

## Capital expenditure programme

### Rail capital expenditure including Crossrail



Examples of the projects included in this programme are outlined below.

### Key projects/programmes

#### Barking Riverside extension

This is a new 4.5km Overground extension to connect Barking Riverside, an opportunity area with potentially 10,800 new homes, with Barking. Construction on the line is scheduled to begin in late 2017, with train services starting in 2021.

#### Gospel Oak to Barking electrification

Electrification of the line will allow four-car electric trains to run from 2018, replacing the existing two-car diesel trains. This will provide additional capacity and contribute towards our commitment to tackle poor air quality in London.

#### Croydon town centre – Dingwall Road Loop

The Dingwall Road Loop is a new section of tramway that will add operational flexibility and increase capacity between Croydon town centre and the eastern branches of the network. It is due to open in 2021. This project is funded in partnership with Croydon borough and local developers.

#### DLR – replacement rolling stock

Demand on the DLR continues to increase, with a 50 per cent rise in annual passenger journeys over the past five years. This project, which will see 43 new full-length trains replacing current rolling stock, will increase total capacity on the DLR network by around 30 per cent.

**750** passengers can be carried on each new DLR train



**23,500**

new jobs and 8,000 new homes will be supported by the Dingwall Loop

**38,000**

new homes within 800m of a DLR station by 2021



# Roads

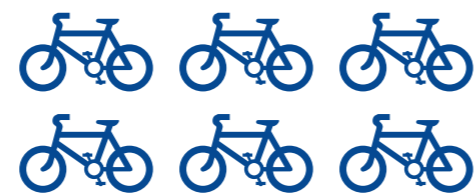
Providing Healthy Streets on, and around, the Transport for London Road Network (TLRN) and supporting boroughs through their Local Implementation Plans.

## What customers can expect

We are bringing together all streets funding into the Healthy Streets programme to make sure it is invested in a coordinated way that prioritises people, rather than vehicles. This will be partly delivered by the boroughs via the funding we have committed to maintain at the current levels.

We will spend £2.1bn by 2021/22 on the programme, which includes air quality (see also the Buses and Other operations sections). It recognises the value of increasing walking, cycling and public transport, alongside more sustainable freight and servicing. We will:

- Deliver major projects to support growth and improvements in London's public spaces, such as the transformation of Oxford Street for pedestrians
- Build a cycle network of new Quietways, the Central London Cycle Grid, more Cycle Superhighways and the Mini-Hollands in Enfield, Kingston and Waltham Forest
- Adopt the new 'Vision Zero' approach to reducing death and serious injury on our roads
- Provide continued significant funding to London's boroughs including through a Liveable Neighbourhoods programme to make town centres and neighbourhoods attractive places in which to walk, cycle and spend time
- Use new and improved strategic management, technology and communication to address problems on our roads. Our recently-published plan, Tackling London's road congestion, highlights better communication with road users so they can plan their journeys, and improved collaboration to reduce disruption caused by roadworks



**600,000+**

cycle journeys in a day in 2015

**6.4 million**

trips made entirely on foot each day



**1.5 million**

Target for the number of cycle journeys a day by 2026



Cycle Superhighway at Temple



- Target the use of safety cameras and roadside enforcement to detect, and deter, dangerous illegal activity
- Introduce bus priority measures in areas where emissions and service delays are greatest, and where bus use is highest
- Introduce an action plan to reduce freight's impact on safety and air quality, mitigate the effect of deliveries through re-timing, and support operators to minimise freight trips
- Improve safety for all vulnerable road users at key junctions, removing the fear that may stop them choosing to walk and cycle, through our Safer Junctions programme

## Operational performance

	Forecast	Plan	Plan	Plan	Plan	Plan
Roads measures	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Customer satisfaction (TLRN*) score	70	70	71	72	72	73
TLRN resolution time (unplanned: serious and severe) disruption (hours per event)	1.80	1.70	1.50	1.50	1.50	1.50
TLRN journey time reliability (AM peak all directions)	88.1	88.5	89.0	89.0	89.0	89.0
State of good repair – carriageways (%)	91	90	90	90	90	90
State of good repair – footways (%)	92	92	91	91	91	91

The recent level of roadworks has led to a decline in journey time reliability and customer satisfaction, which we are taking immediate steps to resolve. In addition, we will set up a Long Term Infrastructure Group to better coordinate our own works, alongside those of utility companies and the London boroughs.

Customer satisfaction scores for the TLRN are expected to increase from 2018/19 through to 2021/22 as a result of improvements in journey time reliability. Enhancements to our road network operations will reduce disruptions. This work includes real-time operations, strategic traffic control and bus speeds, planned roadworks and customer communications.

We will continue to fund and work with the MPS Roads and Transport Policing Command to prevent and minimise disruption. Our Roads and Transport Enforcement Officers also play a vital role in keeping London moving. We will make sure our carriageways and footways are in a state of good repair, with a score of 90 per cent or above, and will develop new performance indicators to reflect the Healthy Streets approach.

It is forecast that levels of cycling within central London will increase by around three per cent year on year, using 2015 as a baseline.

\* Transport for London Road Network

	Forecast	Plan	Plan	Plan	Plan	Plan
Cycling measures	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Central London cycling - growth in cycling journeys in the Congestion Charging zone using 2015 as a baseline (%)	6	9	12	16	19	23

## Financial summary

### Roads

	Forecast	Plan	Plan	Plan	Plan	Plan
£m	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Fares income	–	–	–	–	–	–
Other operating income	315	391	403	393	383	387
<b>Total operating income</b>	<b>315</b>	<b>391</b>	<b>403</b>	<b>393</b>	<b>383</b>	<b>387</b>
Direct operating cost	(650)	(666)	(654)	(648)	(604)	(598)
Indirect operating cost	(83)	(88)	(75)	(76)	(79)	(78)
<b>Net operating deficit</b>	<b>(418)</b>	<b>(363)</b>	<b>(326)</b>	<b>(331)</b>	<b>(300)</b>	<b>(289)</b>
Capital renewals	(131)	(107)	(133)	(151)	(178)	(167)
New capital investment	(148)	(123)	(122)	(228)	(281)	(226)
<b>Total capital expenditure</b>	<b>(279)</b>	<b>(230)</b>	<b>(255)</b>	<b>(379)</b>	<b>(459)</b>	<b>(393)</b>

Income will increase by an average of four per cent a year over the plan. This is driven by a rise in the number of chargeable vehicles entering the Congestion Charge zone, ensuring our enforcement activity supports our Healthy Streets policies, and some year-on-year variation related to third-party contributions for projects.

Our focus on delivering efficiencies and getting value from our suppliers will see operating costs decrease by an average of 1.5 per cent a year. This means we will steadily reduce the net operating deficit over the Business Plan years. However,

our current income sources will not cover the cost of operating, maintaining and renewing the road network, which includes major structural restoration to vital bridges and tunnels.

The principal elements of the capital expenditure programme to enhance our road network are the pedestrianisation of Oxford Street, increased spend on cycling and other Healthy Streets improvements. This equates to investment of £190m a year, on average, over the course of the Business Plan.

## Safety and security

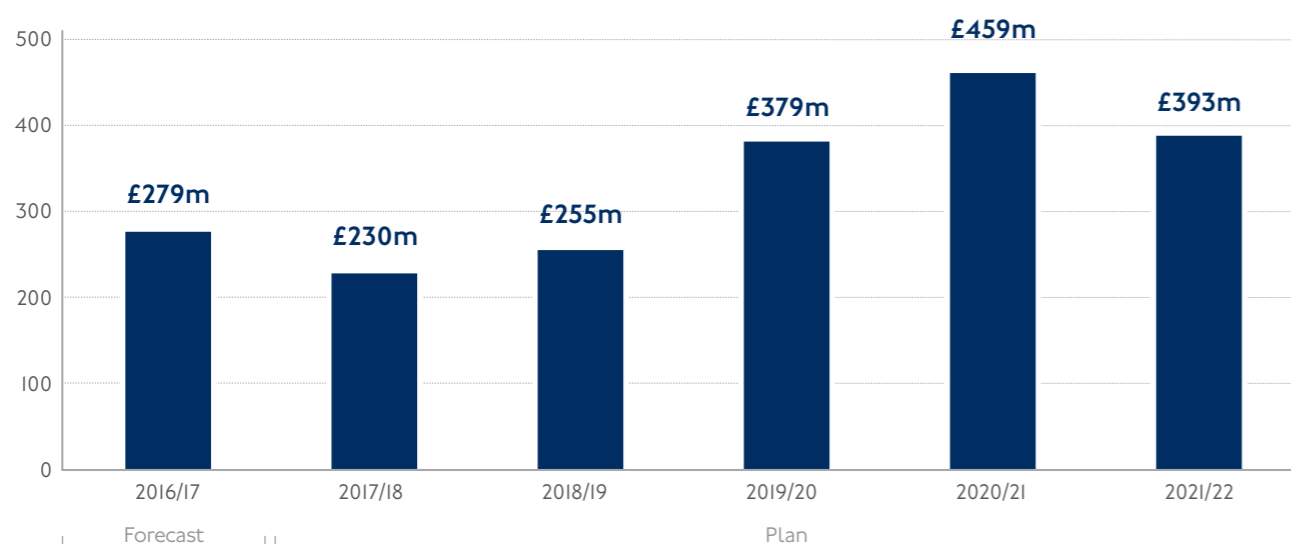
Safety and security rail measures	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Reduction in KSIs London-wide (%)	43.9	45.4	47.0	48.5	50.0	*

\* Our current target is to reduce KSIs by 50 per cent, by 2020/21. The target for 2021/22 is still being developed

In 2015, we saw the lowest number of KSIs on the Capital's roads since records began. We are on track to achieve our target of a 50 per cent reduction in KSIs by 2020, compared with the 2005-2009 baseline.

## Capital expenditure programme

### Roads capital expenditure



Examples of the projects included in this programme are shown below. These schemes are vital for unlocking the Capital's future economic viability. They mitigate growing demand for road space while supporting London as a top place to live, work and visit.

### Key schemes/programmes

#### Oxford Street transformation

We are working with the City of Westminster to make Oxford Street more pedestrian-friendly, improve the very poor air quality and create a new public space within this Business Plan period. This will be partly paid for by third-party funding.

#### Cycle Superhighways programme

We will complete phase 2 of the North-South Cycle Superhighway and new Cycle Superhighways 4, 9 and 11, as well as phase 2 of the East-West route (subject to consultation and approval). This will significantly improve pedestrians' and cyclists' safety and journey experience, and create new public spaces.

#### Vauxhall Cross

We are working with the London Borough of Lambeth to return the Vauxhall gyratory to two-way roads. Work will begin in 2018 and be completed by 2020.

#### Wandsworth gyratory

The removal of the gyratory through Wandsworth town centre will return the road network to two-way operation. This will improve pedestrian crossings and links to the existing cycling network. Work on the scheme will start in 2018.

#### A23/A232 Fiveways Croydon

We will transform Fiveways Croydon by widening the A23 and Epsom Road, and converting Epsom Road to allow two-way traffic. Construction could start in early 2019.

#### Old Street roundabout

We will make the area more pedestrian and cycle-friendly. Construction is due to start in late 2017.

#### Waterloo

Creating a peninsula at Waterloo IMAX will support growth in the area. It will include improved pedestrian crossings and cycle links, as well as upgrades to the bus station and stops.

#### King's Cross/Euston Road

We are improving the area for pedestrians and cyclists. We are also carrying out a feasibility study to remove the King's Cross gyratory.

#### Victoria Terminus Place

We will transform the bus station and streets surrounding Victoria station, improving pedestrian and cycle connectivity to important destinations and interchanges.

#### Bromley-by-Bow

As part of the wider Bromley-by-Bow development, we are enhancing transport links and the public realm.

#### Stratford town centre

We are working with the London Borough of Newham on major improvements to Stratford, including new facilities for cycling, better access to buses and public realm enhancements.



The Thames at Tower Bridge

# Other operations

We are committed to ensuring a broad range of other high-quality travel options, on London's roads and the river, so the city is open to everyone.

## What customers can expect

We regulate London's taxi and private hire industry; oversee the Santander Cycles scheme; provide infrastructure for coaches, such as the Victoria Coach Station; license London River Services (LRS) and operate Dial-a-Ride. We manage the Low Emission Zone (LEZ) and will introduce the ULEZ, which has three core elements – reducing bus fleet emissions, licensing requirements for zero emission capable (ZEC) taxis and private hire vehicles (PHVs), and emissions-based vehicle charging for other road users.

We will also:

- Introduce the Emissions Surcharge in 2017, expand the ULEZ to the North and South Circulars and tighten the LEZ (all subject to consultation)
- Deliver the Taxi and Private Hire Action Plan and increase the number of taxi ranks by 20 per cent, while making them more accessible. We are also providing £40m to enable taxi drivers to switch to ZEC vehicles
- Improve Santander Cycles infrastructure and the scheme's operation
- Work to understand how we can improve our coach infrastructure for growth and changes in demand
- Continue to harness the potential of the river by increasing pier capacity
- Look at developing a ferry service between Canary Wharf and North Greenwich
- Introduce ULEZ-compliant Dial-a-Ride vehicles and make better use of the fleet, for instance through mobile data terminals for drivers that allow smarter scheduling and real-time responses to cancellations

## 10 million

Highest ever passenger numbers recorded on the river in 2015/16



## 11,500

Santander Cycles in operation, over 100km<sup>2</sup> of the city



## 115,000

private hire drivers, and 84,000 private hire vehicles, in London



## Operational performance

Other operations measures	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Dial-a-Ride trip requests scheduled (%)	90	90	90	90	90	90
Cycle hire - number of hires (millions)	10	10	11	11	11	11
Cycle hire customer satisfaction score (points)	82	82	82	82	82	82
LRS passenger journeys (millions)	11	11	11	12	12	12

Dial-a-Ride provides step-free, fully accessible transport for older and disabled people who are less able to use mainstream services. We are working with the boroughs to integrate the provision of social needs transport across London, and improve services for customers. Performance will be maintained throughout the course of the Business Plan.

We are expecting a year-on-year increase in cycle hire use as a result of population growth and our continued investment in cycling. This includes replacing all of our cycle hire bikes.

Since 2010, river passenger numbers have nearly doubled, with more than 10 million people using the Thames every year. Our passenger target has risen to 11 million for 2016/17. Over the longer term, the aim is to reach 12 million journeys a year by 2020.

We are establishing performance indicators to monitor the impact of the ULEZ and our wider air quality programme.

## Financial summary

### Other transport operations

£m	Forecast	Plan	Plan	Plan	Plan	Plan
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Fares income	33	24	20	20	18	18
Other operating income	135	158	187	229	367	396
<b>Total operating income</b>	<b>168</b>	<b>182</b>	<b>207</b>	<b>249</b>	<b>385</b>	<b>414</b>
Direct operating cost	(230)	(255)	(160)	(86)	(121)	(159)
Indirect operating cost	(15)	(16)	(14)	(14)	(14)	(14)
<b>Net operating (deficit)/surplus</b>	<b>(77)</b>	<b>(89)</b>	<b>33</b>	<b>149</b>	<b>250</b>	<b>241</b>
Capital renewals	(84)	(71)	(101)	(67)	(65)	(46)
New capital investment	(97)	(148)	(155)	(270)	(306)	(303)
<b>Total capital expenditure</b>	<b>(181)</b>	<b>(219)</b>	<b>(256)</b>	<b>(337)</b>	<b>(371)</b>	<b>(349)</b>

We are tripling capital investment by 2021/22 to improve London's air quality. This will deliver the world's first ULEZ in central London. Subject to consultation, we are proposing to bring forward the ULEZ to 2019, then expand it to the North and South Circulars for all vehicles, and London-wide for lorries, coaches and buses. We are also proposing to introduce an Emissions Surcharge to the Congestion Charge in 2017.

These schemes will result in a sustained rise in income from other operations in 2019/20 and 2020/21. It will help cover the schemes' operating costs and, from 2020/21, will create a small surplus that will contribute to the capital implementation costs.

In addition, more cycle hire and LRS journeys, plus a rise in the taxi and private hire licence fee (owing to the growing number of private hire vehicles), will increase our operating income. Revenue from the licence fee will fund additional compliance activity.

New licensing requirements will mean London's taxis and minicabs must become ZEC, and £85m will be invested to ease the transition and develop the necessary charging infrastructure. On a like-for-like basis, operating costs will be reduced year-on-year through more efficient ways of working.

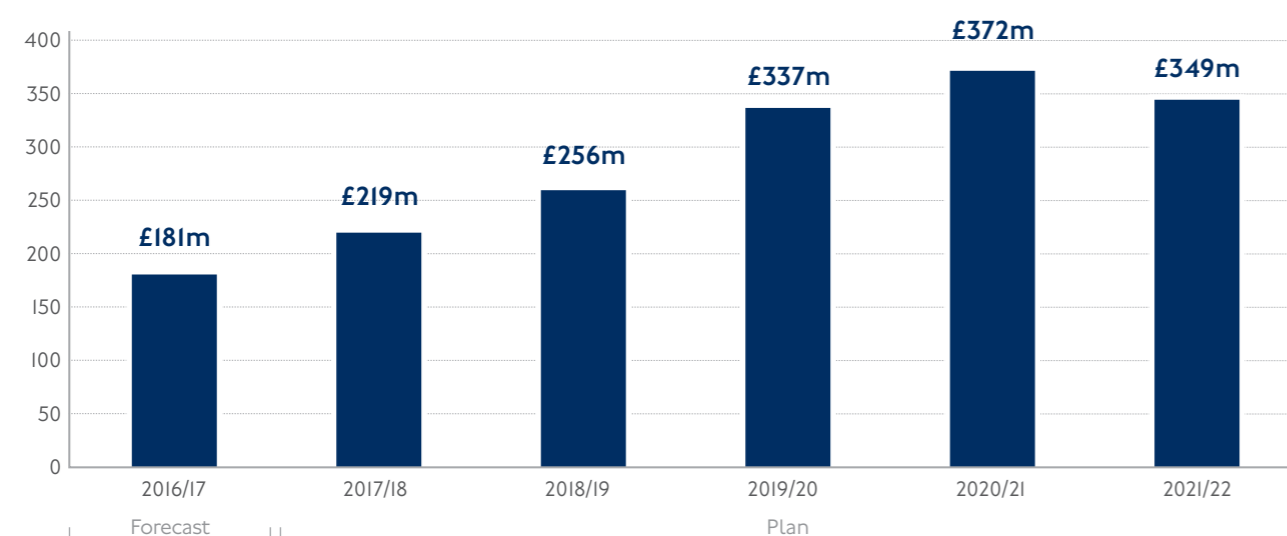
## Safety and security

Improving the safety of London's taxi and private hire industry remains a priority. We have made clear our commitment to drive up standards through an overhaul of private hire regulations, rigorous enforcement to tackle illegal activity, the recruitment of 250 additional compliance officers and lobbying for more effective enforcement powers.

The Mayor's Taxi and Private Hire Action Plan included a commitment to seek additional powers to regulate rickshaws on the city's streets. Unsafe pedicabs are a public safety issue and can seriously disrupt traffic in central London. The riders are not subject to the same strict background checks we carry out for taxi and private hire drivers and vehicles, and there is no regulation of fares. We are working with the Government to address this problem.

## Capital expenditure programmes

### Other operations capital expenditure



Examples of projects included in this programme are detailed below.

### Key schemes/programmes

#### ULEZ

The ULEZ will set new emissions standards for vehicles driving in central London. It will reduce nitrogen oxides and particulate matter (the most dangerous substances affecting air quality) and improve the health of Londoners. It will also significantly cut pollution outside of the zone. The scheme is currently scheduled to be introduced in September 2020, but an earlier date of 2019 is being proposed through consultation.

#### Santander Cycles

We will take a new approach to operating the cycle hire scheme in 2017, and will renew our entire infrastructure over the Business Plan period. An upgraded bike will be on the streets in 2018, with around 500 supplied each year to replace older models. We will also integrate the scheme more fully with our other services and make operations more efficient.

#### Woolwich Ferry

We are investing in the service to make sure it continues to provide vital connectivity for east London. We are purchasing new vessels that will improve reliability and reduce operation and maintenance costs.

#### Dial-a-Ride

We will introduce ULEZ-compliant vehicles ahead of the scheme's launch.

# 12 million

Target number of LRS passenger journeys by 2020



# 100%

of taxis presented for licensing for the first time in London will need to be ZEC from 1 January 2018



# 250

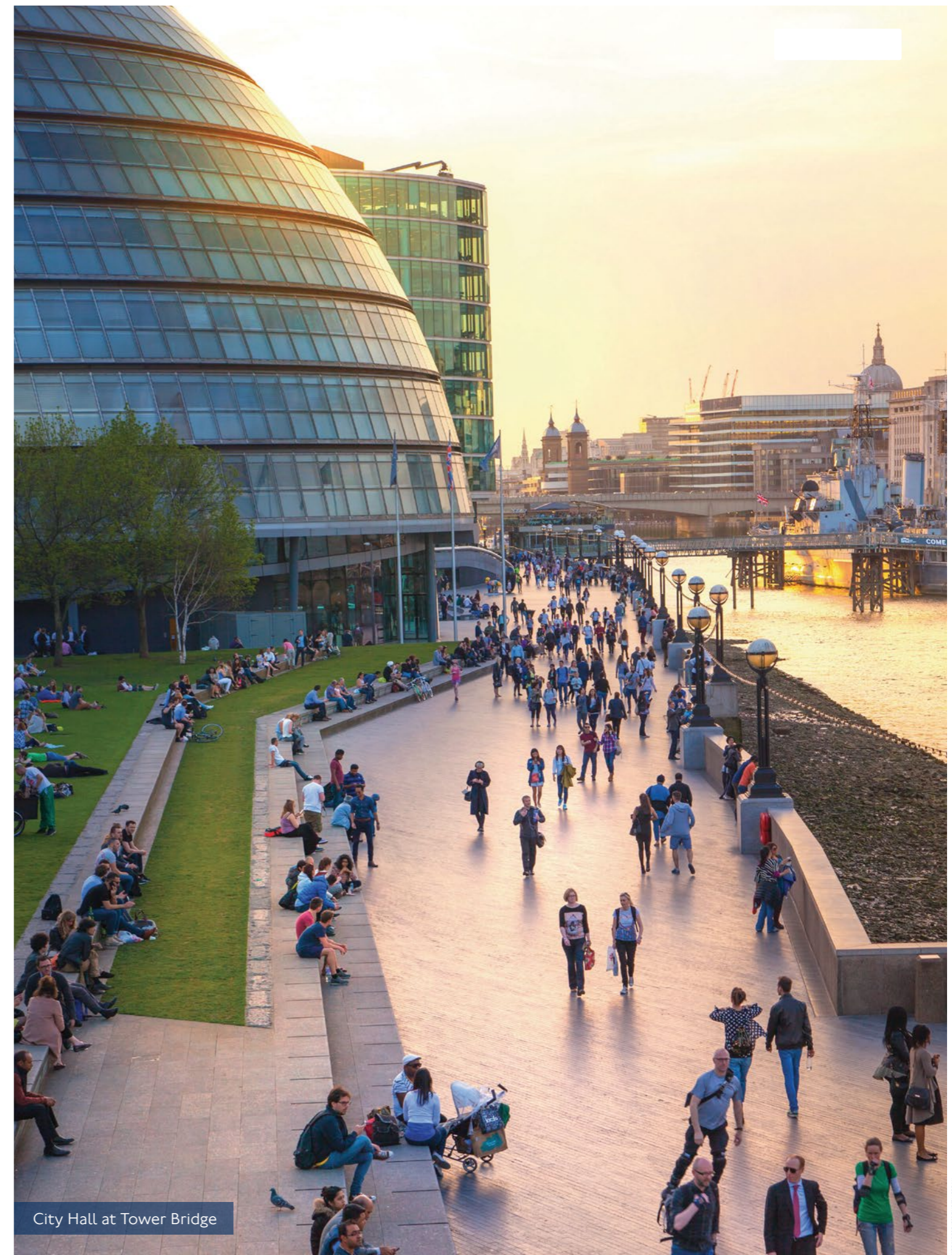
more dedicated taxi and private hire compliance officers on the streets of London by summer 2017



# Appendices

## I. TfL Group balance sheet

	Actual	Forecast	Plan	Plan	Plan	Plan	Plan
Balance sheet (£m)	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Intangible assets	123	95	50	42	39	39	38
Property, plant and equipment	34,402	37,066	39,145	40,539	41,682	42,948	44,299
Investment properties	518	515	515	513	513	513	513
Investment in associate entities	473	495	510	525	525	525	525
Long-term derivatives	7	11	11	11	11	11	11
Long-term debtors	692	34	38	48	52	52	52
<b>Non-current assets</b>	<b>36,215</b>	<b>38,216</b>	<b>40,269</b>	<b>41,678</b>	<b>42,822</b>	<b>44,088</b>	<b>45,438</b>
Stocks	71	74	74	76	79	81	83
Short-term debtors	1,262	1,506	534	500	393	391	383
Short-term derivatives	5	12	12	12	12	12	12
Cash and short-term investments	3,314	1,800	1,806	1,430	1,439	1,648	2,207
<b>Current assets</b>	<b>4,652</b>	<b>3,392</b>	<b>2,426</b>	<b>2,018</b>	<b>1,923</b>	<b>2,132</b>	<b>2,685</b>
Short-term creditors	(2,188)	(1,972)	(2,330)	(2,525)	(2,423)	(2,347)	(2,701)
Short-term derivatives	(21)	(9)	(4)	(4)	(4)	(4)	(4)
Short-term borrowings	(832)	(832)	(832)	(832)	(832)	(832)	(832)
Short-term lease liabilities	(94)	(75)	(43)	(41)	(40)	(38)	(38)
Short-term provisions	(221)	(97)	(36)	(17)	(17)	(17)	(17)
<b>Current liabilities</b>	<b>(3,356)</b>	<b>(2,985)</b>	<b>(3,245)</b>	<b>(3,419)</b>	<b>(3,316)</b>	<b>(3,238)</b>	<b>(3,592)</b>
Long-term creditors	(80)	(91)	(90)	(90)	(89)	(89)	(89)
Long-term borrowings	(8,281)	(8,983)	(9,584)	(10,186)	(10,887)	(11,488)	(12,090)
Long-term lease liabilities	(565)	(500)	(452)	(384)	(318)	(258)	(224)
Long-term derivatives	(95)	(97)	(95)	(89)	(75)	(72)	(59)
Other provisions	(46)	(31)	(15)	(14)	(14)	(14)	(14)
Pension provision	(3,208)	(3,200)	(3,187)	(3,174)	(3,164)	(3,164)	(3,164)
<b>Long-term liabilities</b>	<b>(12,275)</b>	<b>(12,902)</b>	<b>(13,423)</b>	<b>(13,937)</b>	<b>(14,547)</b>	<b>(15,085)</b>	<b>(15,640)</b>
<b>Total net assets</b>	<b>25,236</b>	<b>25,721</b>	<b>26,027</b>	<b>26,340</b>	<b>26,882</b>	<b>27,897</b>	<b>28,891</b>
<b>Capital and reserves</b>							
Usable reserves	3,233	2,061	1,698	1,221	1,148	1,396	1,544
Unusable reserves	22,003	23,660	24,329	25,119	25,734	26,501	27,347
<b>Total capital employed</b>	<b>25,236</b>	<b>25,721</b>	<b>26,027</b>	<b>26,340</b>	<b>26,882</b>	<b>27,897</b>	<b>28,891</b>



City Hall at Tower Bridge

## 2. Major new capital investment (net of third-party funding)

### London Underground

Project	2017/18-21/22 total
<b>Modernisation of the Circle, District, Hammersmith &amp; City and Metropolitan lines</b> Upgrade of the four lines, resulting in a 33 per cent increase in capacity	£1,388m
<b>Crossrail (trains and enabling work)</b> Procurement of Crossrail trains (and some other works) that are paid directly by TfL rather than through Crossrail Ltd	£893m
<b>Deep Tube upgrade programme</b> Modernisation of the Piccadilly (first to take place), Central, Bakerloo and Waterloo & City lines (new trains and signalling)	£1,237m
<b>Northern line extension</b> Extension from Kennington to Battersea	£612m
<b>Jubilee and Northern line capacity enhancement</b> Additional trains plus enabling work to exploit the new signalling system's capability (an extra six trains an hour in the peak on each line)	£673m
<b>Major station upgrades (including Victoria, Tottenham Court Road, Bond Street and Bank)</b> Station capacity projects that are already in progress	£483m

Project	2017/18-21/22 total
<b>Fleet and signalling renewals</b> Work to enable the existing train and signalling equipment to continue to operate ahead of renewal via the deep Tube upgrade programme and Rail Vehicle Accessibility Regulations compliance works	£419m
<b>Station step-free access</b> Additional step-free schemes beyond those delivered as part of station capacity projects or Crossrail construction	£194m
<b>Camden Town station upgrade</b> Investment to relieve congestion. Pre-requisite for Northern line upgrade 2	£120m
<b>Holborn station upgrade</b> Investment to relieve congestion. Pre-requisite for the Piccadilly line upgrade	£101m
<b>Energy/carbon reduction schemes</b> Waste heat schemes and energy and carbon reduction initiatives including the Bunhill project	£14m

## Buses, roads and rail

Project	2017/18-21/22 total
<b>Healthy Streets (capital spend only)</b> Work recognising the value of increasing walking, cycling and public transport, more sustainable freight and servicing, plus initiatives that improve air quality	£1,327m
<b>Public transport infrastructure</b> Largely the remaining costs for the New Routemasters and the new ferries for the Woolwich crossing	£65m
<b>DLR enhancements</b> Asset renewals, capacity enhancements and supporting infrastructure for new trains in 2022	£301m
<b>Silvertown crossing</b> New road crossing at Silvertown via a tunnel under the Thames	£90m
<b>Barking Riverside extension</b> Extension of the Gospel Oak to Barking line to Barking Riverside, supporting new housing	£82m
<b>Overground enhancements</b> Electrification of the Gospel Oak to Barking line and investment in stations transferred to TfL in 2015	£54m
<b>Rail devolution</b> Development funding for devolution of suburban rail routes	£20m
<b>Tram enhancements</b> Principally the construction of the Dingwall Loop to support higher frequencies as part of the Westfield development	£12m

## Other operations

Project	2017/18-21/22 total
<b>Elephant &amp; Castle station upgrade</b> A new entrance for the Northern line station at Elephant & Castle, replacing the current lifts with escalators to support local development	£53m
<b>Woolwich Crossrail fit-out</b> Installing station equipment to allow Woolwich station to open with the rest of the Elizabeth line	£24m



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