

# Business Plan 2013

Transport for London's plans into the next decade.

MAYOR OF LONDON



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Transport for London's plans into  
the next decade.

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# Message from the Mayor



**Boris Johnson**  
Mayor of London

As the Capital's population and economy continue to grow, there has never been more pressure on London's transport network. Yet thanks to our neo-Victorian surge of investment in modernising the system for the 21st century, it is now more reliable and efficient than at any other point in history, with customer satisfaction at an all-time high. We are now back in what some would call a Golden Age.

Radical infrastructure upgrades and improvements to the way public transport and road networks are managed, as well as better customer support and information have made all the difference. But as the population continues to grow exponentially, projected to exceed 10 million by the 2030s, it is vital we do not rest on our laurels. We must not stop here.

In the 2013 Spending Round, Government listened to the voice of London and committed to stable long-term funding through to the early years of the next decade. We have never been in a better position to invest in our own future. Better stations, more reliable services, a new 24-hour weekend

London is a world leader in business, culture and education, and its success is, in part, fuelled by the investments we make.

service from 2015 are all on the way. Crossrail, the Northern line extension, and improved bus, Overground, Docklands Light Railway (DLR) and tram services are no longer a pipe dream. We are also delivering safer, more attractive cycling infrastructure, improved roads, high streets and neighbourhoods, and tackling air pollution.

Alongside all these improvements I will continue to bear down on fares. In January, they will only rise by the Retail Price Index (RPI) rather than our long-term assumption of RPI plus one per cent, and we continue to offer much-needed concessions to those who most need them.

With this fantastic track record of efficient delivery, Transport for London (TfL) will now get down to the business of planning the next chapter of significant transport investment – Crossrail 2, new Tube extensions and major improvements to our road network. I will set out the detail in my 2050 Infrastructure Investment Plan.

A longer-term plan stretching way beyond the next decade, and a pipeline of sustained

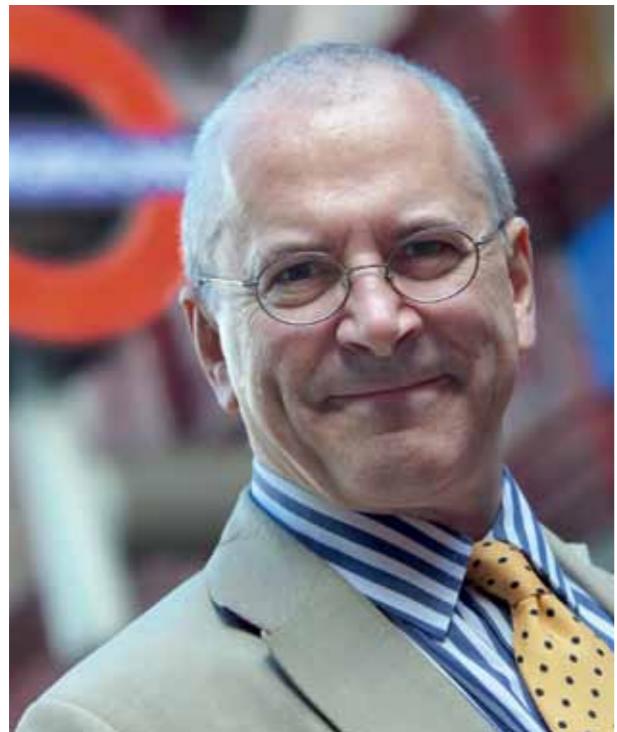
investment and improvements is absolutely essential. My next challenge is to persuade the Government to help provide the funds to support it.

London is a world leader in business, culture and education, and its success is, in part, fuelled by the investments we make. A first rate mass transport system is vital for economic growth, new jobs and providing the new homes the Capital desperately needs. I commend this Business Plan to support a growing and thriving London that will benefit the entire country and beyond.

A handwritten signature in black ink, appearing to read "Boris Johnson".

**Boris Johnson**  
Mayor of London

# Commissioner's foreword



**Sir Peter Hendy, CBE**  
Commissioner,  
Transport for London

We exist to keep London working and growing and to make life in the Capital better.

Achieving this goal is now more challenging than ever with a difficult economy and a rapidly growing population. Expectations rightly continue to rise, particularly since the success of transport during the London 2012 Games and with our track record of delivering major infrastructure renewal and expansion projects.

London's population of 8.4 million today will become nine million by 2018 and is on track to be more than 10 million in the 2030s. Our network must keep pace if London's success and growth are to continue.

This document outlines our plans into the next decade and highlights how targeted investment and advances in technology will allow us to support economic growth.

We have to balance delivering our services while continuing with one of the biggest savings and efficiency programmes in the public sector. Our success is dependent on Government support through grant and borrowing, our fare payers, developing our commercial income and achieving our efficiency targets.

This document outlines our plans into the next decade and highlights how targeted investment and advances in technology will allow us to support economic growth.

This plan sets out our proposals to deliver the Mayor's Transport Strategy. Every decision we make towards achieving the strategy's goals considers London's future, both economically and in terms of customers, users and businesses of tomorrow. This can be seen in the increased capacity that this plan provides, blended with consideration of wider benefits including safety and environmental impacts.

Every decision has four integral considerations:

- Customers: First and foremost our customers are at the centre of everything we do
- Delivery: Providing a great, safe service every day and delivering new infrastructure and enhancements on time, on budget and of the quality that London deserves
- Value: A relentless focus on getting the best possible value for fare and taxpayers' money by continually asking how we can work better, simpler and cheaper
- Our people: Motivated, committed and high-performing staff who have the right skills and behaviours to deliver our many operations and investments

This document addresses each in turn. For our plans to succeed we must excel in all four areas.

The plans set out in this document are a critical part of the Mayor's 2020 Vision for London and already form projects in the UK Government's top infrastructure developments. With this plan we will build on our successes and deliver what matters to ensure the growth and prosperity of the Capital and the whole of the UK.

A handwritten signature in black ink that reads "Peter Hendy".

**Sir Peter Hendy CBE**  
Commissioner



This Business Plan is structured around the four pillars of our strategy: Customer, Delivery, People and Value. We explicitly link the objectives and work of our staff to these pillars and provide a clear connection to TfL's goal and the Mayor's Transport Strategy



Delivering safe, reliable, clean,  
sustainable and accessible transport.

Page 28

Delivering safe, reliable, clean,  
sustainable and accessible transport.

## Our people: Dedicated to customer service

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Valuing our people, being accountable, actively seeking solutions and working with others directly, fairly and consistently.



Stratford International station  
We are focusing on what our customers need

## Customers: The heart of our business

Our customers are at the centre of everything we do.

Our customers are:

- Bus, Tube, rail, tram, river and cable car passengers
- Motorists and motorcyclists
- Cyclists
- Dial-a-ride users
- Pedestrians
- Taxi and private hire users
- Freight and logistics organisations
- Coach users

Around 30 million journey stages are undertaken on our network every day, including half of all bus and rail journeys in England. Virtually everyone who lives, works or visits London will use one of our services. Every one of these journeys matters to us, no matter how long or short or by which method.

There will be more than 10 million people in the city by the 2030s and we are committed to delivering a sustainable, effective system for all our customers and users, both now and in the future.

Growing customer expectations, combined with rapidly advancing technology, is changing the way we provide services. We have a relentless focus in operating our services in an integrated way and improving customer service and delivery.

Our priority is on the areas which our customers and users tell us matter most to them, and which are crucial to help London maintain its role as a world-leading city.



## Getting the basics right

Our customers and users rightly expect efficient, reliable, safe and secure transport services every day. The Tube is running more services and is more reliable than at any other time in its 150-year history and the bus network continues to be one of the most efficient and extensive anywhere in the world. Our rail network has improved beyond all recognition. There is a huge surge in cycling in London, although we recognise that much more needs to be done to make it a safe and attractive option for all.

### A reliable transport network

We are committed to making our services more dependable. Record investment in road infrastructure will deliver increased reliability into the next decade and we are continuing to improve the bus network to maintain high reliability and customer satisfaction scores.

The focus of the Tube reliability programme has already helped us to reduce delays by 17 per cent between 2011 and 2012, putting us on track to meet the Mayor's target of a 30 per cent reduction in Tube delays by 2015 compared to 2011.

### A safe transport network

We know that our customers expect the highest standards of safety and security on our public transport services and roads.

Our public transport system has a safety record that rivals the best systems in the world and crime is at the lowest rate recorded. There are more than 2,500 TfL-funded police officers patrolling our network and around 500 ticket inspectors. We will continue to invest to ensure that crime stays low.

All of our customers want London's roads to be safe. The number of people killed or seriously injured fell by 40 per cent in the 10 years to 2012. Our priority is to focus on reducing casualties for those who make up the highest proportion of injuries and deaths, namely pedestrians, cyclists and motorcyclists.

We have published our Safe Streets for London Road Safety Action Plan, which sets out how we will meet our target of reducing the number of people killed or seriously injured in London by 40 per cent by 2020 (against an average of the number between 2005 and 2009).

We will also make our streets physically safer, such as reworking 33 priority junctions, and providing cycling infrastructure on Barclays Cycle Superhighways. These schemes, and others, are outlined in the Delivery chapter on page 28. Part of road safety relates to how people behave, so our plans also deliver training, education, enforcement and activity that seeks to influence vehicle standards.

We are working with commercial vehicle operators to ensure that lorry and van drivers in London are trained to be more aware of vulnerable road users, such as cyclists and pedestrians. We can directly influence this; for example we only contract companies that meet agreed road safety standards, as promoted through the Fleet Operator Recognition Scheme (FORS), and we will urge boroughs and other public bodies to do the same.

We encourage all operators to fit vehicles with safety equipment and are working with industry and manufacturers to define the specifications for future vehicle design to reduce blind spots

and maximise the area visible from the driver's cab by 2015. By 2014 we will have developed a common code of practice for managing work-related road risk for our construction sector supply chains.

Through our work with the Metropolitan Police Service (MPS), City of London Police and the Vehicle and Operator Services Agency (VOSA), the Industrial HGV Task Force will help improve the safety of all vulnerable road users through education and enforcement.

We will provide education and training to all road users focusing particularly on those deemed at greater risk. We work to educate children of all

**Table 1** Crime and safety

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Lower is better</b>									
London Underground and DLR: Recorded crime per million passenger journeys	Per million passenger journey	8.6	8.4	8.1	7.9	7.9	7.8	7.8	7.7
London Buses: Recorded crime per million passenger journeys	Per million passenger journey	7.8	7.7	7.5	7.4	7.4	7.3	7.2	7.2
Londoners whose use of public transport is significantly affected by crime and disorder concerns	Per cent	28.0	28.0	27.0	27.0	26.0	26.0	25.0	25.0
<b>Higher is better</b>									
Cumulative reduction of killed and seriously injured on London's roads (from 2005-2009 base)	Per cent	27.3	29.4	31.3	33.1	34.9	36.7	38.4	40.0

Nearly 70 per cent of Oyster card queries are now settled within 24 hours compared to earlier service level targets of 20 days.

ages in road safety, whether they are walking or cycling. We begin at pre-school by introducing families to the Children's Traffic Club, primary school with the Junior Travel Ambassador and then secondary school with the Youth Travel Ambassador Programmes. Young drivers and their passengers are also being targeted through a mixture of educational initiatives.

We are currently funding the Safe Drive, Stay Alive Programme in various boroughs across London. Older pedestrians are a new focus and we are researching resources currently available for this vulnerable age group. Cycle training and safety improvements are a vital element of the Mayor's Vision for Cycling and we outline more information later in this plan.

#### **Helpful and available staff**

We are committed to providing visible and available staff on our systems and contact centres to support our customers and users. Our staff want to be able to fix customers' problems quickly using their experience, common sense and understanding of the transport network, tailoring their advice to the individual. We will continue to make our services as efficient as possible through the use of better technology and by ensuring that all those who represent us have the tools and training to provide the best customer service they can.

#### **Our vision for the future of the Tube**

In the future we propose to change how we operate our stations to better reflect our customers' different needs and to create a more personal service. Rather than being behind closed doors or glass windows, Tube

station staff will no longer be based in ticket offices, but in ticket halls, on gatelines and on platforms, ready and available to give the best face-to-face service for customers.

There will be staff at stations from first train to last and we will ensure that all stations have the right number of staff. We will build on our already high standards of customer service, to ensure our staff are easily seen and available to help customers choose the right ticket, plan their journeys and get around. We will make the best use of technology including mobile and hand-held devices to ensure our customers have the most up-to-the minute and helpful information.

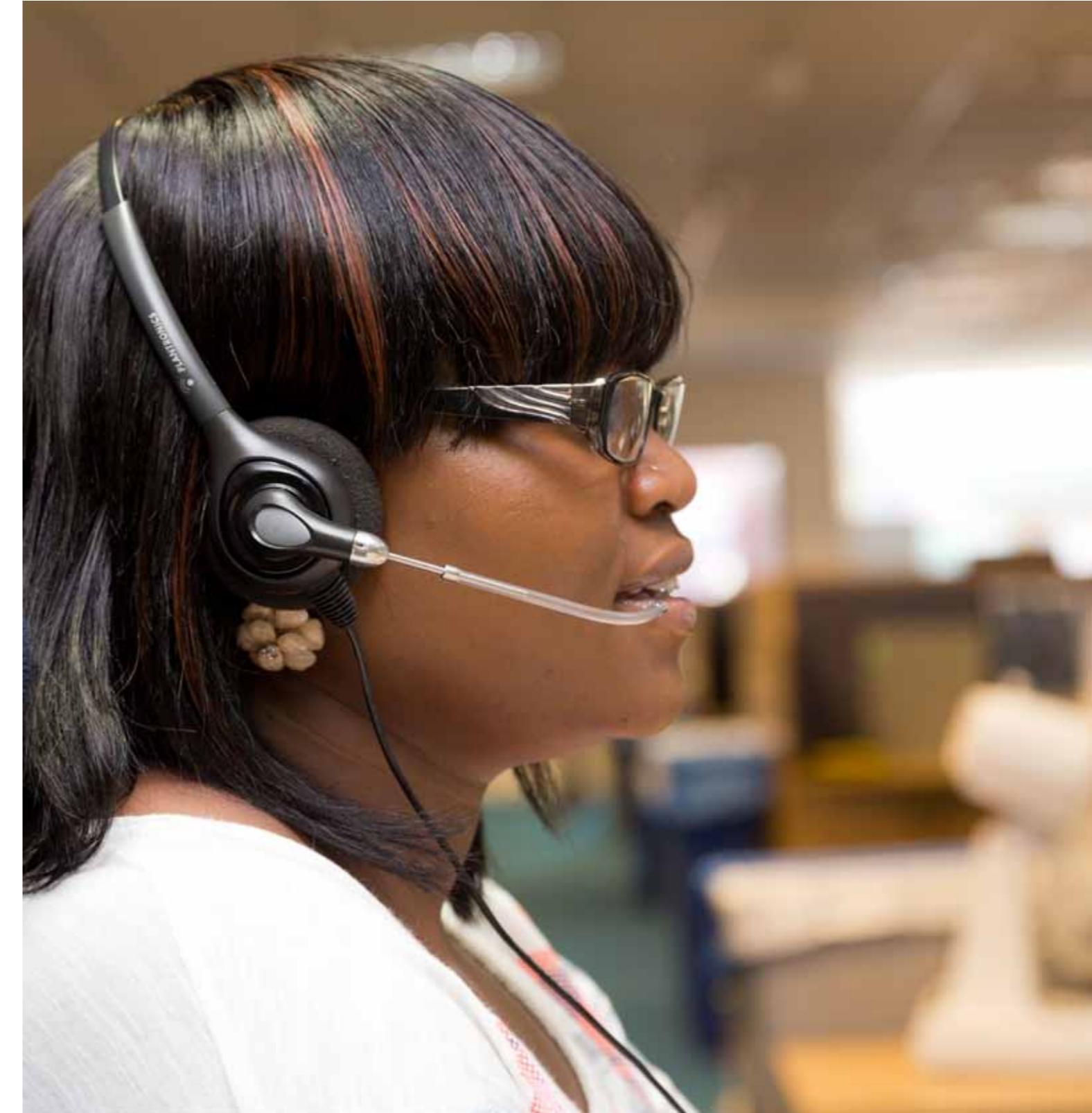
#### **The 'Night Tube'**

We will introduce a new 24-hour Tube service at weekends, running trains right through Friday and Saturday nights from 2015 to support London's vibrant night-time economy, boosting business and jobs.

The new 'Night Tube' network will run through the night on core parts of the system initially on the Northern, Piccadilly, Victoria, Central and Jubilee lines. Alongside the 24-hour and Night Bus services, this will give passengers an extensive and integrated service throughout the night. It will be expanded to include other lines in subsequent years.

#### **Resolving customer complaints**

In dealing with complaints we strive to treat each incident with empathy and common sense, ensuring that the right remedy is provided, whether that is as simple as saying



sorry, or providing a refund. We aim to get it right first time, but in instances where this doesn't happen we strive to learn from the situation and take steps to prevent it happening again.

In taking this approach, we have been able to handle cases at less overall cost and customers have benefited from immediate resolution of their question or complaint. Nearly 70 per cent

of Oyster card queries are now settled within 24 hours compared to earlier service level targets of 20 days.

For those customers and users choosing to contact us by telephone, we will complete our migration to local rate telephone numbers for all contact centres by the end of 2013, significantly lowering the cost of contacting us.

'London has one of the most accessible transport systems in the world but there is always more that can be done. This is why we are investing hundreds of millions of pounds to ensure that we take accessibility in the Capital to the next level.'

Boris Johnson, Mayor of London



## An accessible system

We are committed to removing the difficulties faced by disabled customers when using our network. We know that different customers have different needs. For some, escalators and steps present a barrier to travel and so we are expanding our step-free network every year. For others, information and staff assistance are essential, so we are continuing to expand our provision and ensure our people are trained and ready to help.

The 2012 Games were the most accessible ever in terms of transport. In December 2012, we built on that success by publishing 'Your accessible transport network', which outlined the Mayor's commitment to making it easier

for everyone to travel around London. The initiatives embedded within our plan were created with the input and support of disabled and older people and include an action plan for improvements to infrastructure, information, training and engagement, which we are now delivering.

We are already in a strong position. The DLR and London Tramlink systems are step-free throughout. We operate the London Dial-a-Ride service and support the Taxicard scheme, which both provide door-to-door transport, and we require all of London's 22,000 black cabs to have wheelchair access. Every bus in the Capital has a ramp and wheelchair space

and we are making at least 95 per cent of bus stops accessible by the end of 2016, ensuring that fully accessible vehicles are matched with accessible bus stops.

### Opening up our rail network

Over the next 10 years, we will provide step-free access to at least an extra 27 stations across London Underground and the London Overground network. The number of Tube journeys made each year by step-free routes will almost treble, from 67 million at present to 189 million in 2021.

Some of the initiatives we will deliver include:

- Providing step-free access at an additional five key London stations (Bond Street, Finsbury Park, Tottenham Court Road, Vauxhall and Victoria) by 2019 and working with third parties to introduce confirmed schemes at Bromley-by-Bow in 2015 and Tower Hill in 2016
- Making three more stations partially step-free (Paddington to the Hammersmith & City line in 2014, Bank to the Waterloo & City line in 2015, and to the Northern line at Elephant & Castle and Bank by 2021)

We have introduced a world-leading customer information system on our Victoria line trains, giving visual, real-time disruption information to help hearing-impaired people who may miss announcements from the driver.

- Surveys are under way to identify further sites where boarding ramps may be suitable to provide access between the platform and train
- Ensuring all newly-built Crossrail stations have step-free access, greatly improving east-west accessibility across London, when the link opens in 2018, and enabling around 69 million additional step-free journeys a year
- Exploring how we can deliver step-free access for the seven stations, of the 38 served by Crossrail, that do not currently have step-free funding secured
- Ensuring all new trains (including those on the Circle, Hammersmith & City, Metropolitan and District lines) have dedicated spaces for wheelchair users, a low-floor design for access between the train and platform, multi-purpose spaces throughout and advanced audio and visual information

#### The right information and service

In addition to these physical improvements, the network will also become easier to use as we improve the quality of our information.

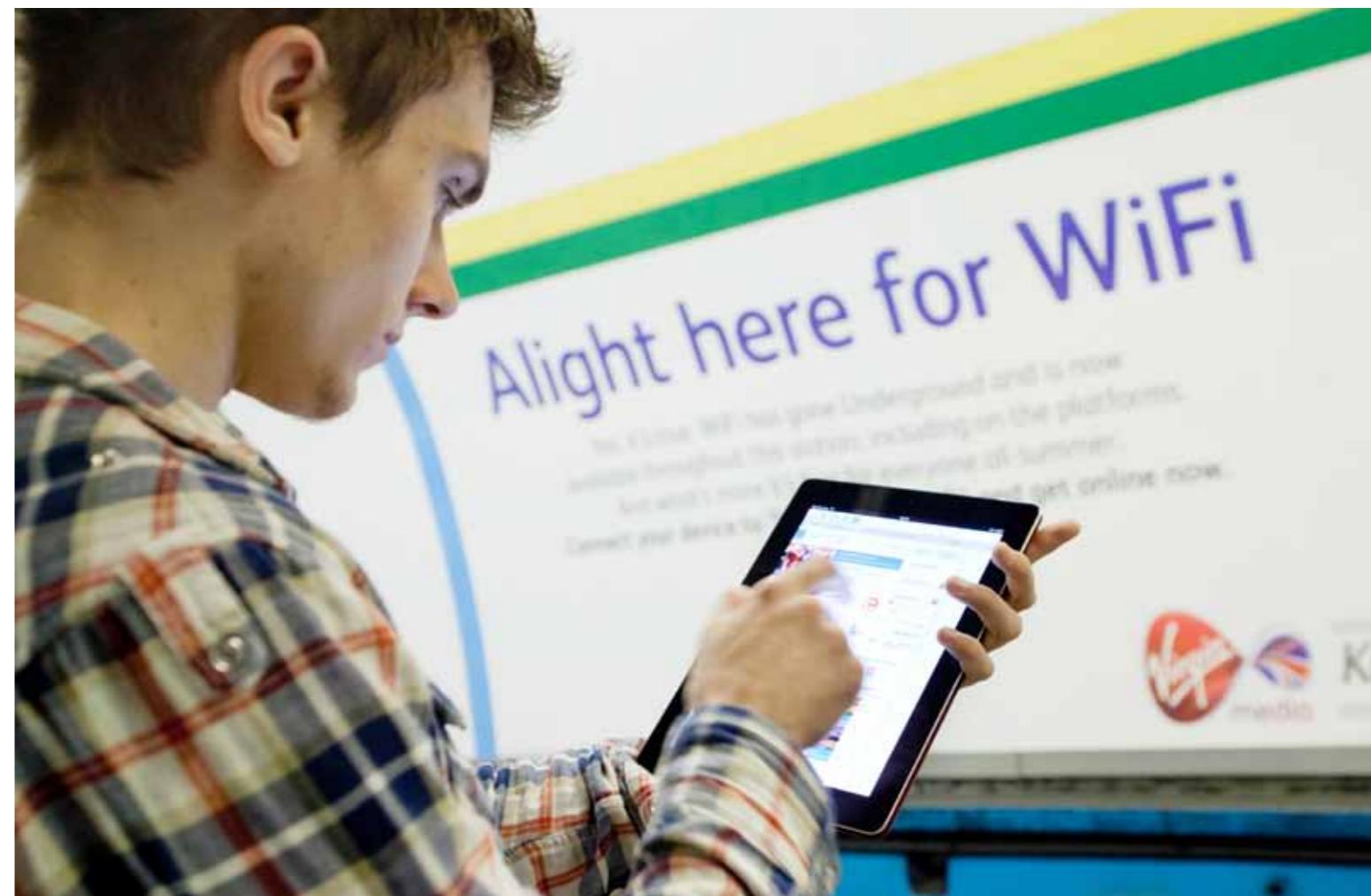
We remain committed to having staff available to help across our networks, while using technology to make the network easier to use. This year we created a team of accessibility champions within our contact centres, which we will continue to develop, ensuring the continued provision of high quality information and support to customers.

We have introduced a world-leading customer information system on our Victoria line trains, giving visual, real-time disruption information to help hearing-impaired people who may miss announcements from the driver.

Following the successful implementation of additional step-free route signage during the Games, similar permanent signage has been introduced at four pilot stations: Paddington, King's Cross, London Bridge and Stratford. This will be rolled out to further stations in 2014/15.

In addition, improved accessibility signage and a new Twitter feed (@TfLAccess) has been launched to help our customers get the most out of the transport network. It will also advise them of any planned changes that may affect their journeys – such as alterations to lifts, escalators or stations. This will extend to all Crossrail stations and will help improve the inner West Anglia franchise services, which are proposed to come under our control from 2015.

We have implemented training programmes designed to build awareness and an in-depth understanding of accessible travel in London. This is demonstrated not only in the newly launched bus driver associability awareness training 'All Aboard', but also through the creation of five accessibility centre-of-excellence stations, where staff have an enhanced level of training, delivered in partnership with disabled people.





## Improving the customer experience through technology

Advances in technology are changing the way our customers interact with us, from buying tickets to obtaining integrated travel information, allowing them to make informed, personalised decisions on travel across all services.

Technology is improving our ability to communicate with our customers and provide real-time information. With three-quarters of Londoners now using the internet on mobile devices 'on the move', our real-time service will keep pace with the way in which customers choose to access travel information. We will build on innovations like live next-bus information via text and on the web, saving people time and providing them with reassurance about the status of their services.

We are investing in mobile technology through the provision of WiFi services for customers. We have partnered with Virgin Media for Tube stations and The Cloud for London Overground. We have already provided WiFi access at all Overground stations and 121 Tube stations, with 30 more to follow in early 2014. This is allowing millions of commuters and visitors to get online and find their way around London with up-to-the-minute TfL travel information.

We are providing our station staff with the same information as our customers by equipping them with mobile devices. This will allow our staff to spend more time helping and giving timely advice to customers. These devices will be rolled out to our Tube maintenance teams enabling them to receive and update information in real-time while out on the network.

### New technology

Easier access to live travel information for our customers

**Building on what we learnt during the 2012 Games, we will offer a wide range of information and advice to our customers so they can make informed choices about how to travel.**

We have become a world-leader among transport authorities in the provision of open data. Our information feeds are openly and freely available allowing more than 5,000 developers to produce a wide range of travel apps which complement our own information services. We will continue to work proactively with the developer community to stimulate the travel apps market.

Building on what we learnt during the 2012 Games, we will offer a wide range of information and advice to our customers so they can make informed choices about how to travel and, where possible, how to avoid the times and places where transport services are particularly busy.

By working with partners including Network Rail and the train operating companies, we will provide customers with an integrated overview of our network in advance of times of planned disruption. We will enable customers and businesses in London to avoid congestion and delay wherever possible, making their journeys better and helping us to get the most value out of the transport capacity we have.

#### **Simple and easy ticketing**

Using the latest technology, we will continue to make ticketing as convenient and hassle-free as possible and find even more ways to help customers get the best value fare.

We will also continue to work with the Department for Transport (DfT), train operating companies and others to integrate ticketing and information to provide customers with seamless journeys regardless of who operates the service.

A core element of this is the introduction of contactless payments. Already available on our bus services, we'll expand this to our rail services in 2014. This will increase the choice of payment methods to our customers while offering them the same fares as Oyster. Weekly capping of pay as you go fares will also be introduced for the first time. By 2016 we will have improved the existing Oyster card to carry many of the same features as contactless payment cards.

Currently, around 110,000 customers a day find that their Oyster card needs to be topped up as they try to make their journey, often at the most inconvenient moments. The major benefit of contactless payment is that customers will no longer need to convert their money into Oyster currency. Any bank card carrying the contactless symbol can be tapped on an Oyster reader in the same way as Oyster cards are used today, with contactless cards there will be no need to 'top up'.

Customers will be able to keep track of their journeys and fares through improved online services similar to internet banking. By creating a single account with us, customers will have even better access to online journey statements, the ability to claim automatic refunds for incomplete journeys, pay the Congestion Charge and conduct transactions with us quickly and cheaply, only needing to sign in once.

We currently provide extensive advice to help customers choose the best value for money tickets. We will harness new technology to make this information even more accessible.

This includes developing a 'fares wizard' which will be integrated with our journey planning services to show not only the best route to take but also the best fare for the trip.

We are also consulting on removing the option to pay by cash on our buses so that customers can take advantage of cashless payments by card. The Mayor's decision is expected alongside the publication of this document and if the go-ahead is given, those who currently pay by cash will benefit from cheaper fares. When fully implemented in 2014, the scheme will produce savings of around £24m a year, which will be reinvested in the transport network.



## Engaging with our stakeholders

We are in regular contact with around 14,000 organisations representing a range of local and special interests. These include neighbourhood associations, schools, colleges, hospitals and agencies supporting young, older and disabled people who have limited access to transport.

We value our strong, productive relationships with these organisations as it means we can be certain that they have a voice here at TfL and can help us shape our policies and services. By working together we will continue to inform and consult our customers and ensure that we design our services for them.

London has 35 Business Improvement Districts (BIDS) that help manage key commercial areas, such as the West End. We have developed a strategy for BIDs to ensure that each one is visited regularly so that they have an opportunity to work with us on decisions affecting their areas.

The Capital is home to more than 800,000 private sector businesses that operate on an international, national, regional and local basis. We will continue to work with them and their representative associations to ensure our services support their trading environments. This includes the vital freight and logistics sectors, which keep goods and services operating via our road network.



### Building relationships

We support a variety of community projects across the Capital



#### Creating partnerships

Working well with other organisations helps to reduce cost and disruption

## Partnership working and funding improvements

Providing an integrated transport network means working in partnership with a wide range of organisations. We work closely with borough councils which we fund through a combination of Local Implementation Plans (LIPs) and specific project funding for Mayoral and borough priorities.

We are also working with boroughs to reduce costs, enabling them to do more with LIP funding. Currently, along with eight London boroughs, we are saving more than 15 per cent on unit rates through the London Highway Alliance Contract (LoHAC) highway maintenance contracts. Developed jointly, these contracts are open to all London boroughs, and we expect more will choose to participate in order to benefit from savings.

In delivering a number of enhancements and station upgrades, including Finsbury Park and Paddington, we have worked closely with Network Rail. This has achieved a coherent station design, provided integrated travel information and an improved service for our customers. We have also worked collaboratively with Network Rail on Crossrail, which is due to open in 2018.

On the Capital's roads we are also seeking to work more closely with utility companies to further reduce disruption and the Metropolitan Police Service to minimise delays during works on the Blackwall Tunnel. A revised road reopening protocol, developed in collaboration with stakeholders, will be implemented to allow us to clear up incidents quicker.

Table 2 Customer satisfaction surveys

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Higher is better</b>									
Congestion Charge	Score	82	82	82	82	82	82	82	82
Bus	Score	82	82	82	82	82	82	82	82
Transport for London Road Network	Score	76	78	78	78	78	78	78	78
London Underground	Score	82	83	83	84	84	85	85	86
DLR	Score	85	86	86	86	86	86	87	87
London Overground	Score	80	81	82	82	82	82	82	82
Tramlink	Score	88	89	88	88	89	89	89	89
Emirates Air Line	Score	92	93	93	93	93	93	93	93
Dial-a-Ride	Score	92	92	92	92	92	92	92	92

# Delivery: Our plans and our promises

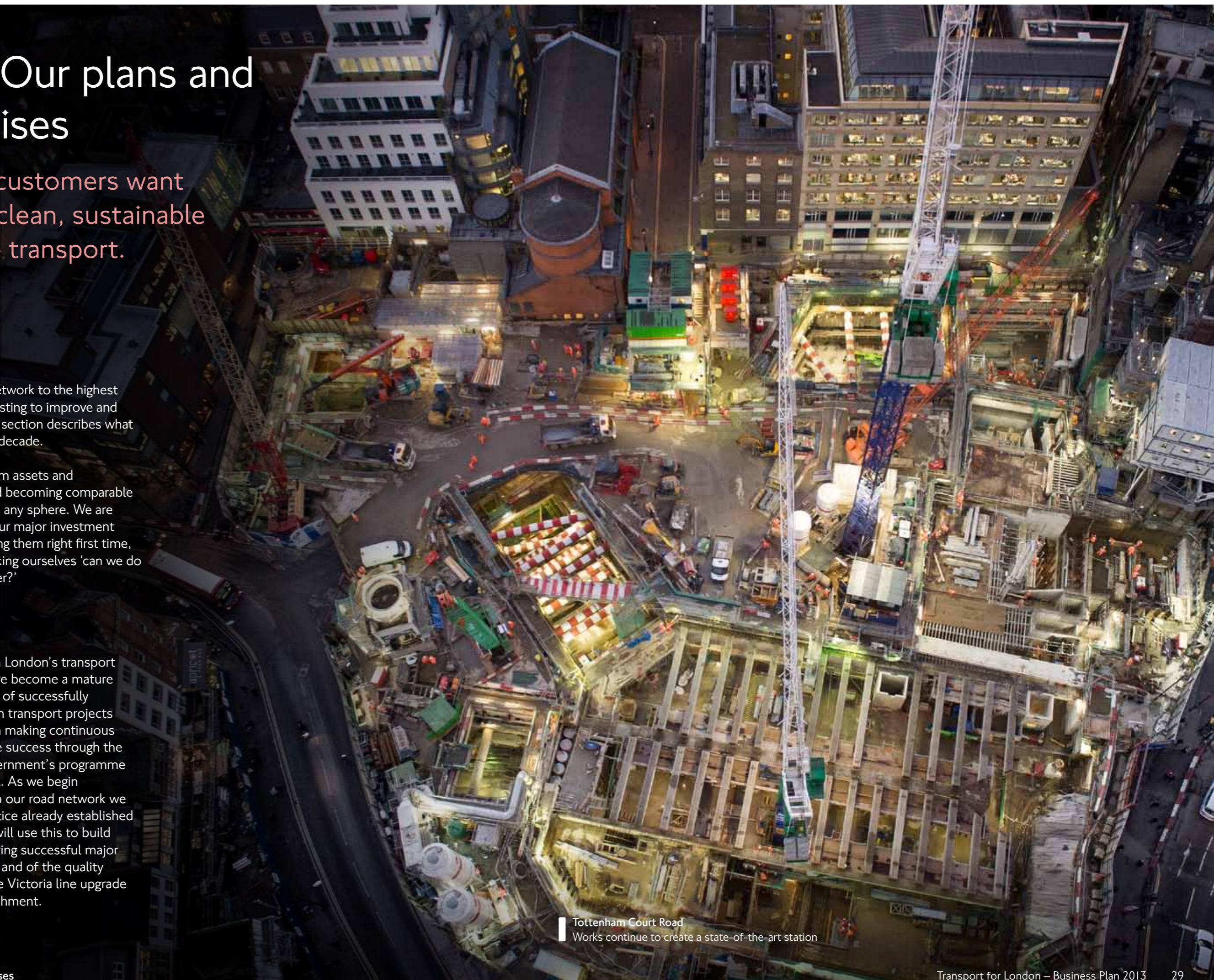
We know our customers want safe, reliable, clean, sustainable and accessible transport.

Every day we must run our network to the highest possible standards while investing to improve and prepare it for the future. This section describes what we will provide into the next decade.

We strive to get the most from assets and technology, learning from and becoming comparable with the best organisations in any sphere. We are introducing new assets and our major investment programmes efficiently, getting them right first time, every time. We are always asking ourselves 'can we do this better, simpler, or cheaper?'

## Our capability

With increased investment in London's transport over the past decade, we have become a mature delivery organisation capable of successfully investing billions of pounds in transport projects each year. We are focused on making continuous improvements to programme success through the use of the best practice Government's programme management maturity model. As we begin unprecedented investment in our road network we are building on the best practice already established within the organisation. We will use this to build on our track record of delivering successful major schemes on time, on budget and of the quality London deserves, such as the Victoria line upgrade and Blackwall Tunnel refurbishment.



Tottenham Court Road  
Works continue to create a state-of-the-art station



## A foundation of well-maintained infrastructure

We know that our customers need reliable transport. This means providing stable and well-maintained infrastructure. While not conspicuous, this work is the bedrock of all other improvements we seek to offer. There can be no sustained improvement to reliability, capacity increase or extensions to serve new areas if our underlying network is not in a fit state.

Since our organisation was created there has been a revolution in the state and condition of our track, trains, signalling, bridges and other assets. Previous ad-hoc repairs have been replaced by a sustained programme of maintenance and renewal across Tube and

rail services. Londoners are now reaping the benefits with fewer delays than ever.

On the Transport for London Road Network (TLRN) we have a commitment to major renewals and repairs, and long-term plans for all assets.

### Roads

The TLRN includes 2,500 lane kilometres of carriageways carrying more than a third of the city's traffic, 1,200km of footways, 1,800 structures, 12 major road tunnels, 40,000 lighting units, more than 6,000 traffic signals, drainage and green estate – our verges and trees.

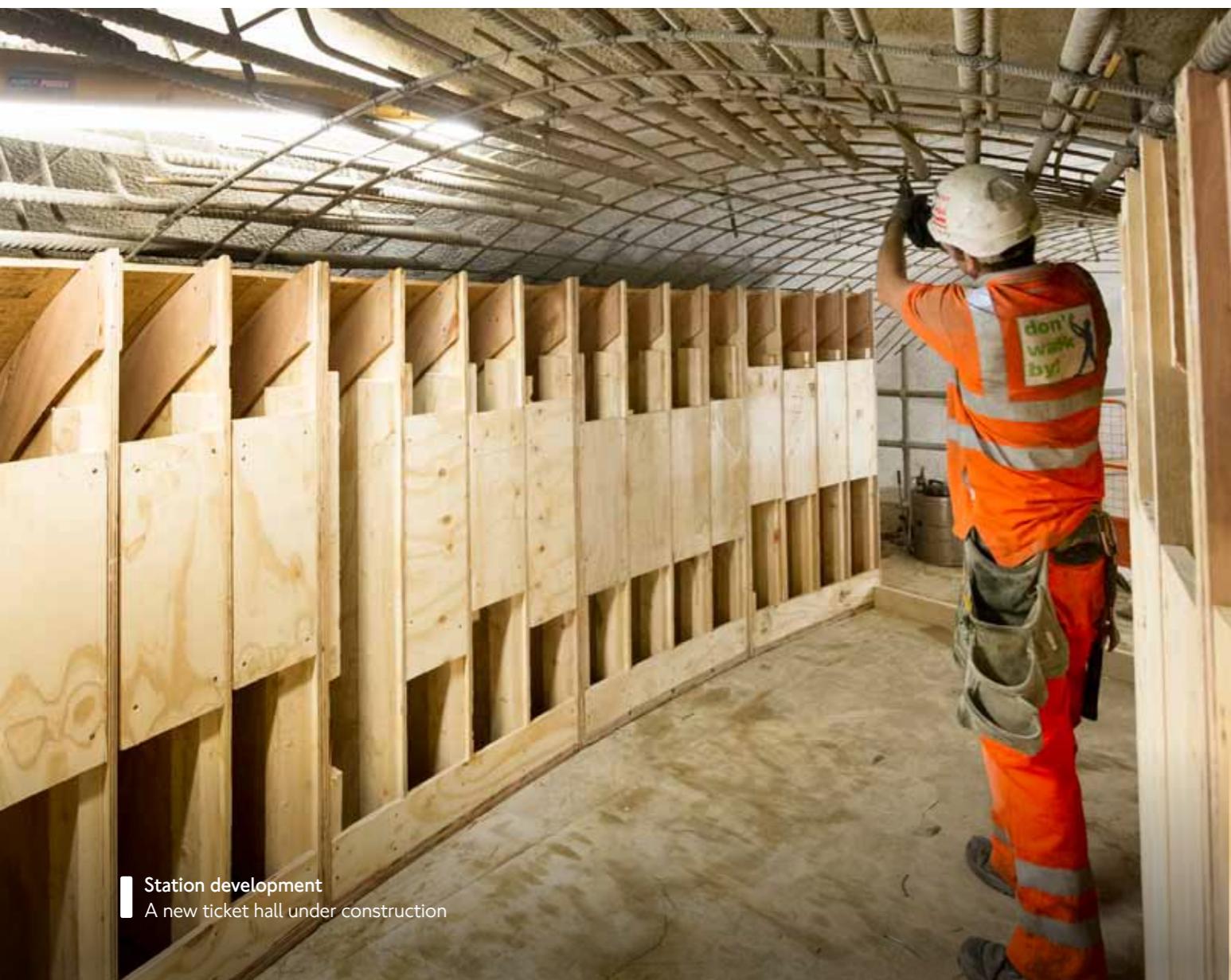
### Asset management

We are taking a long-term approach to maintaining and renewing our roads

Our long-term maintenance and renewal plans take a 30-year view to maintain a state of good repair. This means ensuring we are doing the right work at the right time. These assets typically have a long life. If they are maintained well, and our plans strike the balance between minor repairs and more substantial renewal and reconstruction activities, we can minimise disruption to our road users, deliver value for money and prevent problems before they happen.

To do this, we need to understand a complex asset base, which ranges from Victorian bridges and tunnels to more modern structures,

all of which are affected differently by use, vandalism or weathering. This programme gives us the opportunity to adopt modern technologies. We are investing in new and emerging street lighting technologies, such as LEDs, and incorporating energy-efficiency measures along bus routes, at bus stops and at shelters and stations.



### The Tube

To improve reliability on the Tube we need to reduce the likelihood of incidents that cause disruption. We can do this by introducing new assets and adopting new approaches to their management. We must also ensure that we respond rapidly and effectively to minimise delays. A 'predict and prevent' approach to failures is being adopted to reduce the frequency of disruptions through predictive rather than reactive maintenance. This involves installing remote condition monitoring equipment in key parts of our signalling system and other assets so we know when an asset is likely to fail. Our track investment will be backed up by a new Automatic Track Monitoring System, which collects real-time information from trains in service to inform maintenance work.

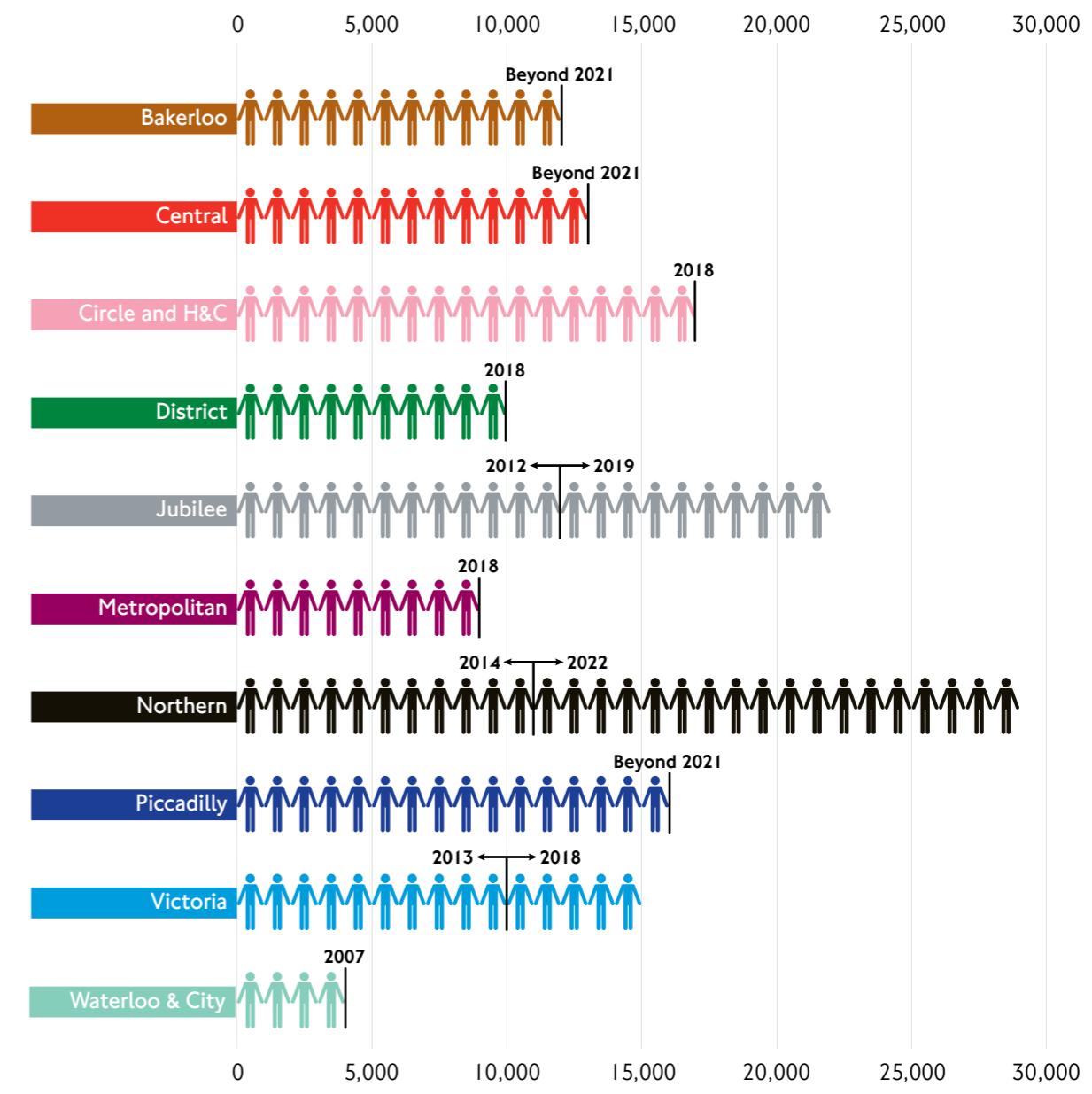
We are also improving our 'response and recovery' to ensure that when incidents happen

the impact on customers is minimised. The new London Underground Control Centre, opened in 2013, has brought operational staff and engineers together under a single command to ensure that incidents are resolved more quickly.

We are reviewing how new assets are introduced, such as the new signalling systems on the sub-surface and Northern lines, to ensure that they are not the cause of delays. We are also adopting more standardised asset designs and specifications which, when combined with more reliability initiatives set out in our supplier agreements, mean that performance is improved and costs are reduced. This has already proved successful, with train-related delays falling by 50 per cent on the Victoria and Metropolitan lines following the introduction of new fleets in 2011 and 2012 respectively. The new trains will also be 20 per cent cheaper (per kilometre they operate) to maintain than the outgoing fleet.

The new London Underground Control Centre, opened in 2013, has brought operational staff and engineers together under a single command to ensure that incidents are resolved more quickly.

**Figure 1** Additional capacity in peak hour (since 2006)



## Maximising capacity on our network

London's population is growing faster than expected with the number of residents forecast to be nine million by 2018 and 10 million by the 2030s. With a stable base of assets we are able to carry out improvements to our network that maximise its capacity. Reliability and capacity are intertwined: a more reliable system can carry more people, while many projects that improve capacity are also focused on removing factors that cause delays.

### Tube improvement programmes

#### Sub-surface lines

The sub-surface railway upgrade is the largest investment we are undertaking on the Underground. It is delivering 191 new, walk-through, air-conditioned trains on all four sub-surface lines (Metropolitan, Hammersmith & City, Circle and District), plus a new signalling system and control centre, power upgrades and extensive train depot improvements.

On the Circle and Hammersmith & City lines the trains are longer than the outgoing fleet, providing 17 per cent more capacity. Following the successful introduction of all the new Metropolitan line trains, the new fleet is now being introduced on the Hammersmith & City, Circle and District lines. All new trains will be in service by the end of 2016. The new automatic signalling system, which allows trains to run closer together and at higher frequencies, will see a phased introduction from 2016 completing in 2018, which will provide 33 per cent more capacity across all four lines. This single system replaces a patchwork of life-expired, manual signalling systems that are a major cause of delays and disruption today.

#### Northern line improvements

The Northern line is the busiest and most complex on the network, carrying more than 900,000 passengers a day. Improvements to the line are under way and the new signalling will allow us to run more trains, more often, with fewer failures. When the work is complete in 2014, capacity on the line will increase by a fifth. This means we can carry the equivalent of an extra 11,000 passengers in peak hours.

#### Unlocking the full benefits of improved assets

The recent works on the Victoria and Jubilee lines (and the soon to be delivered Northern line improvements) have led to much-needed enhancements in capacity, journey time and reliability. By building on this work we will get as much from our existing network as we possibly can.

Improvements to the Victoria line have already delivered a 21 per cent increase in capacity. There are 47 new trains in the fleet and currently the line operates 33 trains an hour at peak times. Using the same trains but completing further enabling works on the track and signalling assets, it will be possible to run up to 36 trains an hour, the equivalent to a train every 100 seconds in the peak hours. This is also true for the Jubilee line, where additional trains will provide a peak-time service of up to 36 trains an hour.

The second phase of the Northern line works will enhance capacity further. With the purchase of additional trains and changes to services at Kennington, we will be able to increase train frequency from 24 trains an hour at peak times (following the first upgrade) to



at least 30 trains an hour in the peak on each branch. This will allow us to carry an additional 18,000 people in the peak hour, providing capacity through central London and assisting with the dispersal of HS2 demand at Euston.

#### Future Tube upgrades

Over the past year we have developed our programme for future improvements on our Tube lines. Trains on the Piccadilly and Bakerloo lines are more than 40 years old and the fleet for the Central and Waterloo & City lines will also need replacing soon. Upgrading in the correct order is vital.

Detailed reviews of our current trains and signalling, together with confirmed Government funding until the end of this decade, will allow us to carry out a massive capacity upgrade as the first phase in this new programme of improvements. The Piccadilly line will lead the way for the next generation; pioneering new technology will be used to provide more capacity and greater levels of reliability. Signalling works on the Piccadilly line will begin in 2019, with the first new trains in service by 2022. This will increase the peak capacity of the line by more than 60 per cent.

The Piccadilly line will form the blueprint for a single train design that will be rolled out across the Central, Waterloo & City and Bakerloo lines over the next two decades. The programme will provide higher capacity, energy-efficient trains with walk-through, air-cooled carriages (a first for a deep-level Tube line) so customers benefit from a faster, more comfortable journey. We will also look to provide greater levels of automation on these lines.

#### The Roads Task Force and the vision for London's streets and roads

London's 13,600km of roads are vital to the UK economy. Everyday, 30 million journey stages are made in the Capital with 80 per cent taking place on the roads. That's not just motorists, but also includes bus journeys, cycling trips, walking and most freight trips.

Offering an efficient and effective road network is essential to support London's continuing success as a vibrant and internationally competitive city. With the forecast population increase, our road network will suffer from more congestion, worsening reliability and a declining environmental and safety performance if we do not take action.

The Mayor's Roads Task Force report sets out a clear vision of 'world-class streets and roads in London, fit for the future'. Supporting that vision is a strategic framework, which recognises the many different functions our streets and public spaces perform. It highlights the need to address congestion and meet growth while accommodating more walking and cycling, and improving public spaces. And it notes the importance of a longer-term strategy for investment in London's roads to achieve this.

We have worked closely with the Roads Task Force to address the challenges and deliver the vision. That is why an unparalleled £4bn of investment in London's roads over the next 10 years has been identified. This represents a wholesale upgrade of the road network with solutions appropriate to the locality and the job that street is expected to do.

A total of 3,433 days of disruption were saved in 2012/13 through closer working and early engagement with our road network partners and utility companies.



With this investment we will:

- Tackle congestion
- Improve London's public spaces and streets
- Make it easy and attractive to walk, cycle and take the bus
- Deliver a better managed network
- Help London grow
- Make our streets safer
- Make our streets greener
- Ensure our assets are fit for the future

Investing to properly maintain our assets in a state of good repair is an important foundation of this plan. Our plans to tackle congestion include a mix of technology and physical initiatives, such as smart traffic management (SCOOT) or targeted local interventions at trouble spots bus infrastructure and the Mayor's Cycling Vision all form parts of our holistic plan for our roads.

At some locations there will need to be a more radical scheme. We will invest in major road schemes that tackle the key links and junctions where there is existing or forecast congestion, competition for space, or where roads are acting as a barrier. This will mean re-imagining places to make them greener, safer and more user-friendly.

We will seek to deliver programmes to:

- Improve the strategic functioning of the network by tackling existing and future pinch-points
- Maximise redevelopment opportunities

- Support local economic activity, enhance safety or urban realm benefits, and improve public transport progression, through the implementation of smaller schemes to address congestion bottlenecks
- Provide new schemes that address better network journey time reliability and reduced congestion along key transport corridors
- Create new growth schemes, as described on page 42
- Enhance the environment, for example, through sustainable urban drainage, including permeable paving, in order to reduce rainwater run-off

Examples of planned major works include the northern roundabout at Elephant and Castle, where our investment will improve cycle facilities, urban realm and reduce collisions by 2016. At Vauxhall Cross, we will convert the gyratory to two-way working by 2018, which will also support the redevelopment of the area; and at the Fiveways junction in the London Borough of Croydon we will invest to reduce existing congestion issues providing users with more reliable journeys by 2021.

#### Maximising traffic flow with technology

To provide a road network fit for the 21st century, we will get the most out of the existing one. We will continue to use technology such as SCOOT, VMS and CCTV and we will introduce new intelligent sensors so we can balance the competing demands for road space and respond to real-time traffic conditions.

Our work with the MPS and VOSA is allowing us to coordinate action to reduce disruption and improve the reliability of journeys in the Blackwall Tunnel. We are also using new 'weigh-in-motion' detectors to help stop incidents before they happen on this vital cross-river corridor, directing users on journeys suitable to their vehicle's size.

#### Buses

Bus journeys are forecast to rise by around seven per cent to more than 2.5 billion a year, while operated kilometres will remain the same to 2015/16 and then grow by around three per cent by 2021.

We will continue to engage with our customers and stakeholders about our services and from 2015 we will be targeting bus congestion hotspots on roads across the city to allow

them to move more smoothly through busy junctions on the road network.

We are also creating high-quality bus priority corridors, which will enable fast journeys in areas of development, and provide access to rail connections in areas where there are currently none.

#### Freight

Freight is vital to London's economy and although its role is behind the scenes, its impact on the road network (which carries more than 90 per cent of freight by weight) is significant.

We aim to build on the successes of freight management practices during the 2012 Games, as well as the London Freight Plan and the Road Freight Management Programme.

**Table 3** Improving London's roads

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Lower is better</b>									
Serious and severe disruption (planned and unplanned events)	Hours	2030.0	1995.0	1990.0	1985.0	1980.0	1975.0	1970.0	1965.0
<b>Higher is better</b>									
Percentage of carriageway in a state of good repair	Per cent	91.0	91.0	92.0	92.0	92.0	93.0	93.0	93.0
Cycling levels on the Transport for London Road Network	Index	267.0	286.0	306.0	325.0	345.0	364.0	383.0	403.0
Vehicles operated by FORS accredited companies	Thousands	162.3	222.0	280.0	330.0	330.0	330.0	330.0	330.0



We will continue to work with industry – both operators and businesses – to achieve our dual goals of making freight safer, especially for other road users, and more efficient in its demands on the road network.

Engaging with, and supporting, the industry and the businesses they serve allows us the maximum opportunity to change behaviour, minimise traffic impact and reduce the effects of freight on the environment. It also allows us to increase levels of compliance with standards and best practice, resulting in improved safety.

Building on the achievements of the London Freight Forum and its working group allows us to encourage deliveries at different times of day and develop industry-wide guidance and compliance. We are also continuing our work with vehicle manufacturers, and by 2015 will define the specifications for future vehicle design, to reduce blind spots and maximise the area visible from the driver's cab.

Accreditation schemes for responsible operators, such as FORS, which promotes safe working practices, legal compliance and corporate social responsibility, is one tangible way to make freight safer. We are working with operators to achieve the Mayor's target for 50 per cent FORS compliance by 2016.

We are developing innovative journey planning approaches, particularly at peak periods, to reduce congestion and emissions. We are also working with relevant partners to increase the use of London's waterways and rail networks as viable modes of transport for freight for the 'last mile' deliveries.

### London Overground capacity upgrades

Demand for London Overground services has grown by 160 per cent in the past five years, just on the original network. However, following the East London line opening in 2010 overall demand has quadrupled. This growth has outstripped capacity and causes severe peak-time congestion. To address this increasing demand, an extra car will be added to all four-car London Overground trains. The Gospel Oak to Barking line will be electrified and we will introduce new, higher capacity, electric trains (instead of two-car diesel vehicles improving air quality). These trains have better acceleration and braking performance, which helps reduce journey times; allow more passengers on board; and are more energy-efficient (emitting 20-30 per cent less carbon than diesel trains).

### London Tramlink

London Tramlink is now carrying 30 million passengers a year, an increase of more than 11 million journeys over the past decade. With south London's population and job market forecast to grow, these numbers are expected to continue rising. Four new trams have been ordered to alleviate congestion on the route between Wimbledon to Croydon. These new vehicles, combined with 'double-tracking' and platform works at Wimbledon, will boost capacity by 50 per cent on this section and improve access to central Croydon. These improvements will help to open the local job market by providing an additional 25,000 people with a journey time of less than 60 minutes to central Croydon. In addition, we are continuing to work with the relevant boroughs to further develop and assess proposals for tram extensions, focusing particularly on potential funding opportunities.

### Harnessing the potential of the river

The Thames has seen a rise in commuter and tourist travel boosted by one of the best summers on record, the feel-good factor of the 2012 Games and early implementation of the Mayor's River Action Plan. Passenger journeys are now heading upwards towards eight million trips for 2013/14 and are on course to hit the Mayor's target of 12 million by 2020.

To improve capacity we are adding more journeys at peak times on the popular Putney to Blackfriars service; exploring plans to add an extra stop at the privately built Plantation Wharf, between Battersea and Wandsworth; and continuing to explore, through feasibility studies, the potential for new and extended piers in central London. This will support increasing demand for river services. We are working with developers and stakeholders to achieve this vision by 2016.

We also want to make river travel seamless and accessible. We will do this by improving signage on our nine piers (by 2016), introducing Oyster pay as you go as a discounted method of payment on commuter routes and improving next-service passenger information by installing electric Countdown signs at all piers visited by River Bus services.

### Tackling overcrowding at our stations and interchanges

Demand is increasing across our network. Large capacity increases help alleviate congestion, but any bottleneck squanders these benefits, so we are tackling congestion black spots to ensure that where our capacity or services are enhanced we avoid overcrowding.

### Paddington (Hammersmith & City line) station

The station upgrade is nearing completion thanks to our successful working relationships with Crossrail and Network Rail. With Crossrail services starting at Paddington in 2018 and increased service frequencies on the Circle and Hammersmith & City lines, the improvements are essential to ensure the station has the capacity to serve this additional demand.

We have already built a new station entrance from Paddington Basin, a new station concourse and two new stairways. We have also extended platforms to accommodate the longer trains which are being introduced, and we have improved CCTV and security.

The final phase of the work focuses on the fit-out of the new ticket hall and the completion of the lifts to the platforms, which will make the station step-free. The work is scheduled to finish in spring 2014.

### Victoria station

By 2022, if left as it is, Victoria station would have to close for more time than it was open in the peak periods to maintain safety at a chronically overcrowded location. To alleviate congestion, we are carrying out major improvements, to provide a new ticket hall, a larger ticket hall, improved interchange capacity and step-free access.

Impact on the roads around Victoria will start to reduce as we complete preparations for the main tunnelling work. The western half of the new north ticket hall has been completed and work on the eastern half has begun. Demolition

The number of passengers passing through Bond Street station every day will increase by more than a third to 225,000 with the opening of Crossrail services.

has already started in preparation for the enlargement to the existing (southern) ticket hall. Due for completion in 2018, this work will ensure that the benefits from the improvements to the Victoria line are maximised.

#### Tottenham Court Road station

By 2016, Tottenham Court Road station will be completely transformed ready for Crossrail services from 2018. Once Crossrail is open, the station will serve more than 200,000 passengers every day without the overcrowding and delays passengers experience at the moment.

The work includes a new ticket hall six times larger than the current one, additional escalators to the Northern line, new entrances and step-free access to all services. Some improvements are due to be completed in 2015, including two of the four new entrances and partial access to the new ticket hall, in advance of the full opening the following year.

This project requires us to work from a very compact worksite while transforming the station layout four storeys below Oxford Street. It highlights the complexity of carrying out major construction work in central London.

#### Bond Street station

The number of passengers passing through Bond Street station every day will increase by more than a third to 225,000 with the opening of Crossrail services. We are currently carrying out a major scheme to re-build the station to relieve congestion and improve accessibility by 2017. The work includes new escalators, a new interchange passageway to and from the Jubilee line, a new entrance and ticket hall, plus step-free access to every platform.

#### Bank station

Bank station is a vital transport hub in the heart of the City of London. Every morning, more than 100,000 passengers rely on its successful operation, a level of demand that overwhelms the current station and often results in customers being prevented from entering until the platforms are cleared.

In the short term, a new entrance to the Waterloo & City line will be constructed at Walbrook Square, providing step-free access and additional capacity by 2015. At the same time a new control room will be built and the station systems upgraded to facilitate both the new Waterloo & City line entrance and the main capacity upgrade.

By 2021, a much more ambitious scheme to relieve congestion to the Northern line will be complete. A new tunnel will be constructed to provide for wider platforms and a new concourse to reduce crowding. In addition,



a new entrance on Cannon Street will provide step-free access to the Northern line and DLR. Interchange will also be greatly improved with the addition of a new route from the Northern line and DLR to the Central line. This will include moving walkways, which will significantly improve journey times.

#### Finsbury Park station

Finsbury Park is a key transport hub in north London, providing interchange between the Tube, bus routes and mainline rail services (which will include Thameslink). We are working on the station's upgrade to ensure it is capable of dealing with the demand from further enhancements to the Victoria line and the improvements to the Piccadilly line.

These works include a new ticket hall provided as part of a major commercial redevelopment to the west of the station (maximising the opportunity provided by a third party developer) as well as step-free access to all lines by 2019. In the shorter term, a new spiral staircase will reduce congestion and improve journey times and new gates will decrease fraud.

#### Future station capacity

Improvements and capacity enhancements are required at further Tube stations to ensure that the network continues to operate effectively and stations support local development. We will initially focus on Holborn and Camden Town, and have plans for further improvements to meet future demand and unlock growth in London's Opportunity Areas, eg Kennington and Elephant & Castle.

Holborn provides a vital interchange between the Piccadilly and Central lines in the West End. However, demand for these lines is already so high; customers are often prevented from changing lines or are held outside to prevent the station becoming unsafe. The work will resolve these issues and allow the area to receive the full benefits of the Piccadilly line upgrade. By 2022, a new interchange link and a re-modelled ticket hall will reduce journey times, boost capacity and make the station step-free.

We are also planning to enhance Camden Town station to complement the Northern line improvements. The station is already forced to operate 'exit-only' at the weekends. Within the Business Plan period we will begin work on a new ticket hall to help reduce capacity pressures, provide new connections at platform level and step-free access. These improvements will relieve crowding and make interchanging easier.



## Unlocking growth for the future of London

Investing in renewal and enhancement of the existing transport network will increase capacity and reliability, supporting growth. But it is only the first step. To develop new business and residential locations additional investment will be essential to extend the network. Improving the accessibility of transport to growth areas ensures that London's development can be accommodated sustainably.

The London Plan identifies 43 sites for major growth up to 2031 – 33 Opportunity Areas and 10 Intensification Areas. These sites have the potential to provide around 250,000 homes and 500,000 jobs, so investment in transport to serve these sites will be crucial to unlock these benefits and meet the needs of the growing city.

Projects are under way at Elephant & Castle, Woolwich and the Upper Lee Valley, that will directly support up to 9,000 new jobs and 10,500 new homes. Initiatives of this kind also drive improvements in other areas of the transport network to ensure growth can

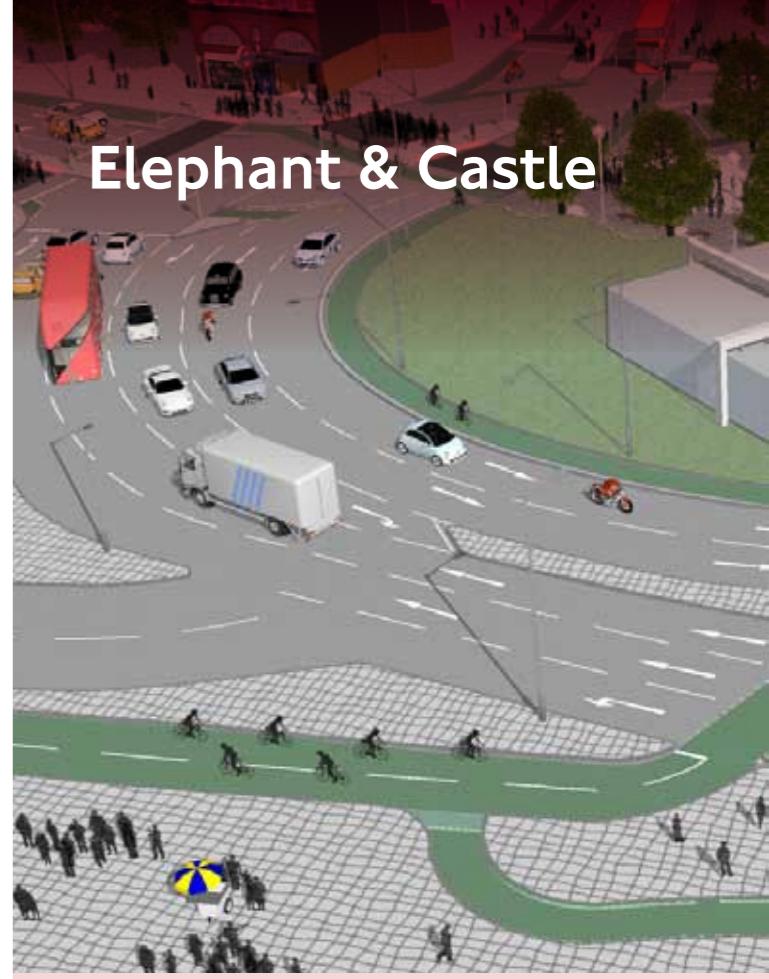
be sustained and Elephant & Castle is a prime example.

London's rail and Tube network is also seeing expansions and major capacity improvements. The Northern line extension, due for completion in 2020, will help open the Vauxhall Nine Elms Battersea Opportunity Area, creating a major new residential, business and leisure district in London's Central Activities Zone. We are also working with Hertfordshire County Council to deliver the Croxley Rail Link, a new addition to the Metropolitan line. This connection, opening in 2017, will support growth and economic development in southwest Hertfordshire, improve connections into London and reduce the strain on Watford's road network.

With the operation of services under the current West Anglia franchise planned to transfer to us in 2015, we are set to transform these routes, supporting jobs and growth in Tottenham and beyond.

The Upper Lee Valley Opportunity Area in north-east London is a priority regeneration area in the London Plan. The development sites for 8,500 new homes and 3,500 jobs are located next to Northumberland Park and Angel Road stations.

The existing rail corridor through the Upper Lee Valley requires investment in additional tracks if more frequent services are to be operated to support this growth. This improvement, along with works to the stations themselves, would help bring forward these sites for development. Further investment would enable an increase in service frequencies to four trains an hour between Stratford and Angel Road (adjacent to the development sites at Meridian Water). Currently the proposed scheme has a third track from Coppermill Junction to Angel Road station, plus a fourth track loop at Tottenham Hale.



The Elephant & Castle area is undergoing major transformation with significant investment to create 6,000 new homes and potential for new retail development.

Improvements to Elephant & Castle station are vital to help open up the growth potential in the area. The enhancements are still in the early stages of planning, but it is proposed that work will be completed in 2019. It will include a new Northern line ticket hall, which will be integrated with the re-development of the local area, with three new escalators and step-free access to the Northern line platforms.

The major regeneration of the Elephant & Castle area will also drive improvements on the road network. It will act as a catalyst to replace the northern roundabout with an improved design, resulting in safer pedestrian and cycle facilities and a better urban realm. It is designed to support residents' and workers' desire for pleasant, high-quality spaces in which to travel, socialise and spend time, delivering on the objectives set by the Mayor's Roads Task Force.

We are also exploring with central Government and Network Rail an extension of the Gospel Oak to Barking line to a new station in Barking Riverside. If funding were available this would support the largest housing development in London, with planning permission for 10,000 new homes.

All modes of transport are critical to enabling growth but areas of regeneration place pressure on existing networks. New developments need links to be created to town centres and interchanges through new bus networks, and walking and cycle paths. Over the next 10 years investment of £100m will provide fast, high-quality Bus Corridor Programmes focused on boosting growth areas and promoting urban regeneration. This aims to enhance bus routes, improve journey times and reliability, and provide new links where appropriate.

These types of bus schemes are flexible and can be implemented quickly and cheaply, compared to rail schemes. They can also be used to complement rail schemes such as Crossrail by improving access from the surrounding areas into these major network expansions.

### Growth and the TfL road network

Major road schemes will link development areas to the rest of London, allowing growth in places where it would otherwise be impeded. Major road schemes will link development areas to the rest of London, allowing growth in places where it would otherwise be impeded. For example, the regeneration of Elephant & Castle (by 2016) will act as a catalyst to replace the northern roundabout with an improved design. This will result in safer pedestrian and cycle facilities and a better urban realm, giving residents and workers pleasant, high-quality spaces in which to travel, socialise and spend time.

We are supporting the regeneration of Tottenham Hale by redeveloping the Tube station as well as working with Haringey Council to convert the one-way gyratory on the A10 to two-way traffic. The project also includes the creation of a new bus station and public square.

Construction on the gyratory started in October 2012 with completion scheduled for late 2014. Carriageway work is taking place overnight, at weekends and during off-peak hours. During the works there will be three 'switch' points where traffic goes from one-way to two-way operation. The first of these was successfully completed on time during summer 2013. The third and final switch will be in spring 2014. The bus station and the surrounding area will be the final element of the project to complete during the second half of 2014.



### Crossrail

The new rail link will provide greater capacity on our network

### Crossrail

Crossrail is crucial to London's future and will expand the city's rail network capacity by 10 per cent – the largest single increase in the Capital's transport capacity since 1945. It will also help to reduce congestion by up to 60 per cent on many Underground lines, as well as on the DLR and Southeastern train services. It will also generate £42bn for the UK economy. More than 1.5 million additional people will have access to quick, direct links to the heart of the Capital.

The new railway will link the outer suburbs in east and west London with fast, frequent, high-capacity services to the City, West End, Heathrow Airport and Docklands. New central London stations will integrate with the Underground at Paddington, Bond Street, Tottenham Court Road, Farringdon, Liverpool Street and Whitechapel.

We will let Crossrail services as a concession, similar to the concession for London Overground, which is now one of the most reliable railways with some of the highest levels of customer satisfaction across the UK. The successful operator will be appointed in late 2014, initially taking over existing services running east of Liverpool Street from 2015. The first new 200-metre trains will begin operating from early 2017 with full services through the central tunnel section beginning towards the end of 2018.

By 2015, tunnelling will have been completed on all 42km of the new twin-bore tunnels, which will carry services through central London. In addition, Crossrail's station projects will be near completion, with the main civil engineering works planned to finish at Customs House station and on Bond Street station's two ticket halls.

The Government announced its decision in principle that the operation of services under the current West Anglia franchise will transfer to us in 2015.

## Crossrail 2

Crossrail will provide a massive boost to London's rail capacity, but we must do more to support the Capital's growth and relieve chronically overcrowded services. Crossrail 2 is a proposed scheme that will provide a greater increase in capacity. It would directly link Hackney to St. Pancras and Euston (serving High Speed 2), Tottenham Court Road (for Crossrail), Victoria and Wimbledon. We are exploring both a metro option (a self-contained line similar to an existing Tube line) and a longer-distance service similar to Crossrail, which would connect to the National Rail network in northeast and southwest London.

We held a public consultation on Crossrail 2 between May and August 2013 which showed overwhelmingly positive support for the line. We will announce the full results of this consultation later this year. Our next step is to update the safe-guarding to reflect our new proposed route. This protects the route from any possible changes that could impact on its suitability, such as major building work. This will make it easier to deliver Crossrail 2.

We have been granted £2m by central Government to further explore the scheme. Working with Network Rail and the DfT we are developing a business case and a proposed funding package to allow us to set out the compelling case for investing in this major project. This can then be pursued towards formal legal powers to build the link in the 2020s.

## DLR

In summer 2013, we started work on doubling a section of track on the DLR at Pudding Mill Lane, extending double track to the Waterworks River in the north and the A12 in the south. This phase is scheduled to be completed by spring 2014 and will increase capacity between Stratford and Canary Wharf by 1,100 passenger journeys in the peak hour. The second phase of the project, to be completed in 2019, will finish the doubling of all remaining single-track sections between Stratford and Bow Church, enabling a further increase in capacity between Stratford and Canary Wharf. The whole project will improve operational reliability and is essential to serving the growth and regeneration of the area.

The DLR will also benefit from additional railcars to increase capacity. Additional stabling for the railcars will be provided at Beckton Depot. This will be completed by 2022.

We are continuing to assess ways to improve access to Lewisham and Bromley. These will be considered through a coordinated approach, which will include options such as a possible extension of the Bakerloo line, the DLR or the Overground. A key focus is how any proposal will be funded.



## River crossings

East London is forecast to have a significant proportion of the city's population growth. The availability of land in this area allows for major commercial and residential development, but this needs to be underpinned by transport infrastructure including river crossings.

Investment in river crossings will be an important element of ensuring east London can grow and successfully link with other areas of the Capital.

We are planning to build a road tunnel at Silvertown, which will provide resilience and congestion relief to the Blackwall Tunnel and support regeneration, including 13,000 new jobs and up to 25,000 new homes in the Royal Docks and Greenwich peninsula areas. We are aiming to open the tunnel by 2021.

We are extending the life of the Woolwich Ferry to ensure a key strategic link is maintained between burgeoning residential developments on the south side, the commercial hub around London City Airport and the revitalised docklands to the north. The vehicle boarding links will be refreshed over the next 18 months and all three boats will undergo servicing. Both a new ferry at Gallions Reach and fixed link options are being considered to replace the Woolwich Ferry.

## Expanding our rail services

Since opening in 2007, London Overground has proved that we are capable of running high-capacity, reliable suburban train services. The Government announced its decision in principle that the operation of services under the current West Anglia franchise will transfer to us in 2015.

As part of the Mayor's ambitions for greater control of London rail services, we will transform these routes, supporting jobs and growth in Tottenham and beyond. Operators will be incentivised to provide more reliable services through the same type of contract that has proved so successful on the rest of London Overground. Upgrades to 23 stations will provide improved ambience and facilities, while Help points and CCTV will enhance security. Staff will be more visible across the routes and customers will benefit from our integrated travel information service. Better revenue protection from the installation of ticket barriers will reduce fraud on the routes.

When the devolution decision is formalised we will procure up to 30 new four-car electric units to operate the West Anglia inner suburban services. These will replace the current ones, which are up to 30 years old, and provide a better seating layout, air conditioning and a more comfortable journey for passengers. The order for new stock is likely to be combined with the procurement of new electric trains for the Gospel Oak to Barking line to ensure best value for money.



#### Pedal power

London is rapidly becoming a cycling city

## Making life in London better

Our investment and operations help make London a city where people want to live, work and visit. This goes well beyond improving the appearance of our streets. It is about making roads safe and welcoming so people see the streets as not simply a place they pass through, but a vital part of living and working in the Capital.

A city that is welcoming to cyclists and walkers is more welcoming to all. Our focus is to make improvements across London's roads as everyone benefits when they are safer, less congested and able to support thriving local businesses.

### Realising the Mayor's vision for cycling

Cycling is a core part of travel in London. Since 2001, the number of cycling journeys on the Capital's main roads has almost tripled and every day more than 570,000 cycle trips are made – more journeys than on London Overground and the DLR. By 2020, we expect more than one million journeys a day will be made by bike, well above today's ridership on any Tube line. Supporting growth in cycling will help to mitigate further crowding on our public transport services.

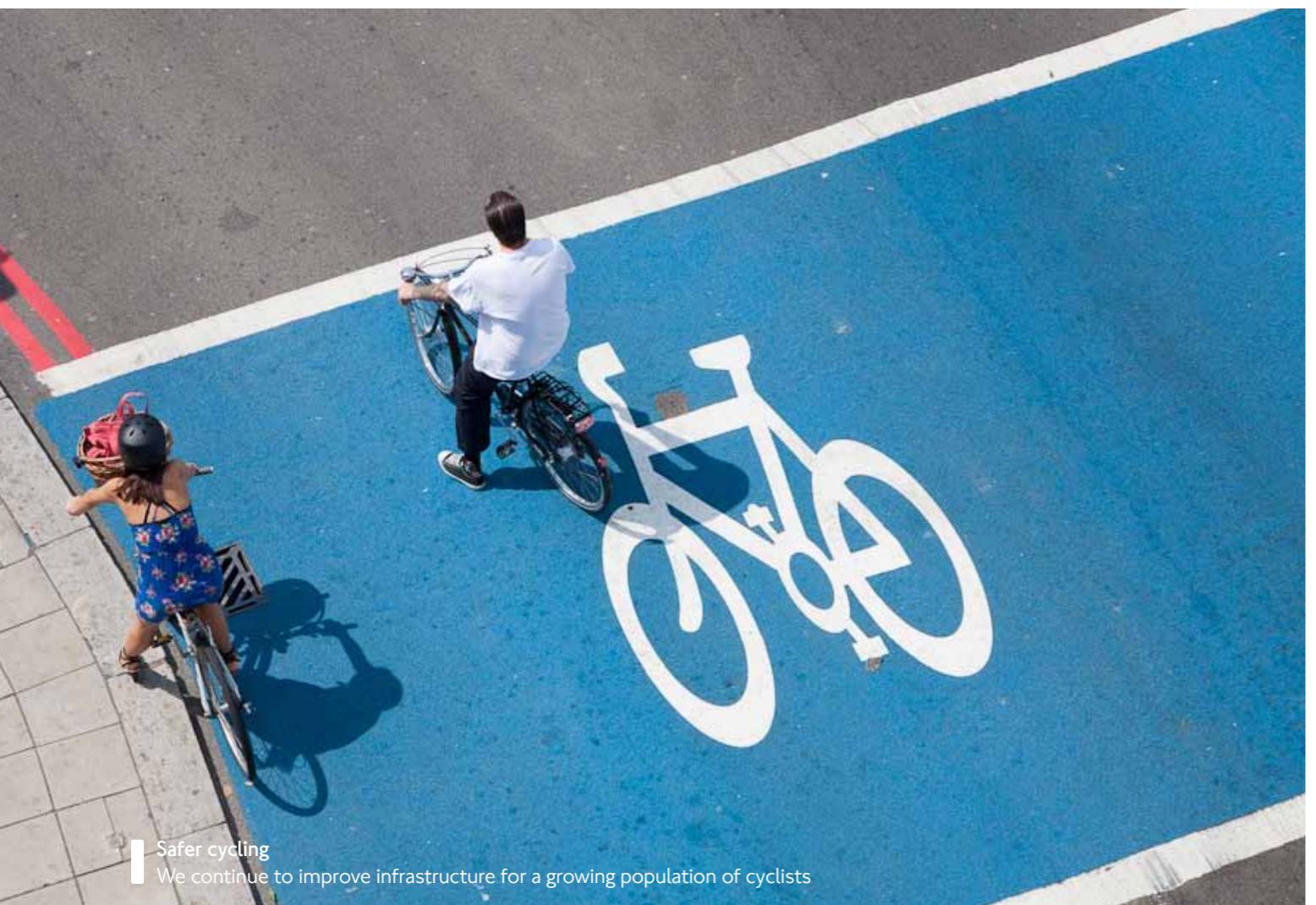
The Mayor published his Vision for Cycling in March 2013. This sets out how we will significantly transform cycling provision to support the growing numbers of cyclists across London. As a major method of transport in the Capital, cycling deserves investment and the Mayor's vision outlines plans to spend more than £900m on cycling over the decade to 2021/22.

This expenditure doesn't only bring benefits for cyclists. High levels of cycling make more efficient use of limited road space and reduce congestion and traffic emissions, while improving Londoner's health through active travel and a cleaner environment. Cycling and walking also make the Capital a more pleasant city to live and work in.

Our plan will invest in an extensive network of cycle routes that allow simpler and safer access to and around London and local town centres. Working closely with the boroughs, we will expand the network of radial routes into central London from all around the city – the Cycle Superhighways. In addition, there will be a network of Quietways across London that will provide routes for new and inexperienced cyclists. In central London, these will combine with the Cycle Superhighways to form a dense network or 'grid'. A number of outer London town centres will be transformed through our mini-Holland programme, which will make outer London boroughs as cycle-friendly as their Dutch counterparts.

Our investment in cycling falls under four broad categories:

- A Tube network for the bike
- Safer streets for the bike
- More people travelling by bike
- Better places for everyone



#### Safer cycling

We continue to improve infrastructure for a growing population of cyclists

#### A Tube network for the bike

##### Quietways

Quietways will provide a network of quiet, comfortable, safe and attractive cycle routes on back streets. They will connect to London's cycling network and offer an environment that can be used by less experienced cyclists. Construction of the first Quietway routes will start in 2014.

##### Cycle Superhighways

Cycle Superhighways provide safer, fast and continuous bike routes running into and across central London along recognised commuter routes – often in parallel with key public transport routes. Delivery will be informed by international best practice, with segregation from other traffic on main roads where possible.

A substantially segregated east-west cycle route – a 'Crossrail for the bike' – will stretch through the heart of London from the western suburbs to Barking, alongside a similar route running north-south via Blackfriars. We have

started developing concept designs for both routes and public consultation is due to take place in summer 2014.

We will deliver these routes and upgrade the existing Cycle Superhighways by 2016.

##### Central London Cycle Grid

We will develop a Central London Cycle Grid of high-quality, high-volume cycle routes using a combination of segregation and quiet, shared streets. The grid will complement and integrate with existing cycle routes in central London. We will carry out a public consultation by summer 2014, with the first parts of the route opening before the end of 2014. The majority of the Grid will be in place by 2016.

##### Mini-Hollands

The highest potential for increasing cycling levels is in outer London. The Mini-Hollands Programme aims to transform up to four outer London boroughs into cycling-friendly town centres, through a number of programmes suitable to the specific area.

#### Safer streets for the bike

##### Better junctions

We have been working closely with stakeholders including cycling, road user and safety organisations, to improve cycling provision at some of the Capital's biggest and busiest junctions. Following the release of the Mayor's Vision for Cycling in London, we plan to concentrate resources on 33 high priority locations. We will continue to work closely with our stakeholders as designs are developed.

#### Education and training

The Schools Education and Training Programme will continue to encourage safe and active travel to school through a range of projects involving primary and secondary schools. We do this by providing grants and partnering with schools through Cycle to School Partnerships and Bike it Plus.

#### Enhancing enforcement activity to improve cycle safety

We are providing additional funding to enhance police activity with the aim of improving road and cycle safety in London. A dedicated Cycle Task Force takes action against cyclists and other road users to enforce against dangerous and irresponsible road use, such as cyclists jumping road lights. Their work is supported by monthly London-wide police cycle safety operations, which tackle risks such as drivers failing to comply with Advanced Stop Lines, and illegal road use such as using mobile phones. The Cycle Task Force recently won the highly prestigious Prince Michael International Road Safety Award, for raising cyclists' awareness of the limits to HGV drivers' visibility.

#### More people travelling by the bike

##### Cycle parking and cycle rail superhubs

Demand for cycle parking across London remains high, with a number of locations at or over capacity. Our Cycle Parking Programme aims to ensure availability of secure and safe cycle parking including at workplaces, stations, residential locations and education establishments, providing a further 80,000 cycle parking spaces by 2015/16.

We are working with Network Rail and train companies to scope and create at least one cycle superhub at a mainline railway station in central London. This will offer a range of additional support services for cyclists, such as cycle repair, servicing and retail facilities, local cycle hire, signage and information.

#### Local Implementation Plan and Borough Cycling Programme support for cycling

Each borough's LIP has a target for increasing the proportion of trips by bike. To support this we provide funding for projects and initiatives that encourage cycling. These include cycle training, cycle parking and educational and awareness programmes, together with physical changes to improve conditions for cyclists on and off-street. In 2012/13, more than 6,500 cycle parking spaces were provided.

The Borough Cycling Programme provides boroughs with additional funding for 2013/14 to 2015/16 to deliver projects that encourage cycling and will be allocated to successful boroughs in April 2014.



### **Barclays Cycle Hire**

Our cycle hire scheme has already seen more than 25 million hires since its launch in 2010. More than three-quarters of the registered users have stated that the scheme prompts them to cycle more, so we are expanding the scheme southwest to Wandsworth, Hammersmith & Fulham, Lambeth and Kensington & Chelsea, bringing an additional 2,400 bicycles and 5,000 docking points into operation. We are also exploring the next generation of cycle hire and seeking ways in which the scheme can be more closely operated with our other services.

### **Walking**

#### **The Mayor's Vision for Walking**

Walking is a vital part of our transport system, integrating public transport, streets and public spaces. We are committed to making walking safer, and more accessible, attractive and enjoyable.

The Walk London Network provides seven walking routes that span the Capital, and we will continue to provide led weekend walks on these routes. These free events help people to enjoy the routes and learn about London with the reassurance of trained guides.

**Local Implementation Plan support for walking**  
LIPs include a target for increasing the number of walking trips. The funding supports a mix of infrastructure improvements, together with educational and promotional programmes for schools, businesses and other key sectors.

### **Legible London**

Legible London is a wayfinding system that helps people move around the Capital more easily and quickly. Importantly it is integrated with other transport modes so when people are leaving the Underground or bus network for example, they can quickly identify the walking route to their destination.

We have an ambition to improve way finding by expanding Legible London, working with developers and boroughs to fund it, and to have more than 3,000 signs in place by 2021.

### **Improving London's air quality**

Air pollution is a major challenge impacting on the health and wellbeing of Londoners. We are helping the Capital remain an attractive destination for people to live and work in by making it cleaner and greener. We are transforming our bus fleet; supporting new more environmentally friendly technologies; working with the boroughs to make local improvements and we are enhancing our green estate.

We have been instrumental in fitting older buses with cleaner exhaust systems, and introducing ambitious plans to retire higher-emission vehicles early and replace with the latest ultra-low emission engines. We're also trialling new electric vehicle technology and protecting and enhancing the natural environment along highways, such as planting more than 100 trees on our roads every year.

**Table 4 Air quality and environment**

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Lower is better</b>									
CO <sub>2</sub> emissions of TfL services	Grams per passenger journey	67.1	64.5	62.2	57.9	56.6	53.5	51.7	49.3
NOx emissions from bus fleet	Tonnes	5133.0	4091.0	3308.0	3290.0	3279.0	3145.0	2927.0	2709.0

### **Transforming our bus fleet**

Over the past decade we have significantly reduced bus fleet emissions. In 1997 buses produced approximately 200 tonnes of particulate matter a year. Today they emit only around 17 tonnes. However, buses remain responsible for around 15 per cent of London's nitrogen oxide (NOx) transport emissions and more needs to be done.

We are working to meet new, ambitious targets to further reduce emissions from the bus fleet. More than 450 older Euro III buses have now been retrofitted with equipment that can reduce NOx emissions by more than 70 per cent per vehicle. Another 450 are set to follow by April 2014. A similar number of vehicles will be replaced ahead of schedule with those using the latest Euro VI engine standard. These measures will significantly reduce overall bus-related NOx by 20 per cent, equivalent to 1,000 tonnes a year.

We have converted more than six per cent of the bus fleet to quieter, cleaner hybrid diesel-electric technology, and are on track to extend this to 20 per cent of the fleet – 1,700 vehicles – by 2016. Fuel economy is more than twice that of a standard diesel bus and these new models emit less than half the CO<sub>2</sub> and NOx of current diesel buses.

A major part of the hybrid programme is the New Routemaster, which is designed for fast boarding and alighting with three doors and two staircases. It has unmatched environmental performance with by far the lowest NOx and particulate matter emissions of any double-decker bus currently on the market. The order of

600 of these UK-manufactured buses by 2016, not only helps the Capital retain the largest diesel-electric hybrid fleet in Europe, but also sustains manufacturing jobs across the country, from Liskeard in Cornwall to the assembly plant near Ballymena in Northern Ireland.

### **New and developing technologies**

We are actively looking beyond diesel power to support the development of more environmentally friendly fuel sources for the future. We are pioneering the use of new technology offering zero-tailpipe emission transport. Eight hydrogen fuel-cell buses run on route RVI from Covent Garden to Tower Gateway. Two pure electric buses will shortly be running on the 507/521 bus route and we will be trialling a further four pure electric buses from 2014. We will continue to work with stakeholders to expand the use of these technologies.

Recognising our ability to create and support new industries in London, we are trialling the use of waste-derived biodiesel on 120 buses prior to wider introduction. This is intended to stimulate private sector investment in the refinement of high-quality biodiesel in the Capital to reduce our carbon emissions and waste at no cost to tax or fare payers. Broadening the use of innovative technology and alternative fuels is lending growing support to light industry and providing the basis of an emerging market.

### **Encouraging the use of green technologies**

We have already amended the Ultra Low Emissions Discount for the Congestion Charge so only ultra-low emission vehicles are eligible

## On the Victoria line, regenerative braking and other technology included with our new trains, signalling and power systems cuts the energy required to run our high frequency service by 34 per cent.

(75g/km CO<sub>2</sub> or less and Euro V standard) to incentivise their take-up. We successfully delivered 1,300 new charging points by April 2013 with more than 60 Source London partners. We are now procuring a private operator to take over the Source London charge point network to ensure its continued success and growth.

We are working with manufacturers to support the development of a zero-emission capable taxi. A prototype hydrogen fuel cell taxi was successfully tested during the 2012 Games and work with the industry continues to support the development and uptake of new technologies. We are also working with taxi drivers to encourage smarter driver training and reduced engine idling. In addition, we are working with the Mayor's office to explore options to deliver an ultra-low emission zone London by 2020.

### Enhancing our green estate

We're proud to be part of the preservation of London's historic avenues and play a key role in protecting and enhancing the Capital's green infrastructure and spaces. Around 22,000 trees along the city's main roads reduce the risk of flooding and absorb reflected heat from buildings, bringing down summer temperatures. This Business Plan provides for the planting of a further 100 street trees each year. We recognise the benefits of green infrastructure and will seek to lead by example by introducing innovative measures to manage rainwater run-off from our buildings, railways and roads to reduce our use of treated water, manage flood risk, minimise water pollution and extend the life of London's drainage systems.

### Working with London's boroughs

To support boroughs in tackling local hotspots of poor air quality, raising awareness and reducing human exposure, we have established a new Mayor's Air Quality Fund with an expected £20m over the lifetime of this plan. A total of £5.4m of investment was allocated in June to 34 projects being delivered over the next three financial years in 29 boroughs. Businesses, schools and other groups have been encouraged to take part in these projects to increase the funding available and maximise impact.

Projects being funded include:

- Promoting the coordination of deliveries and consolidation of freight activities in and around the central London Business Improvement Districts
- Working with four boroughs and Barts NHS Trust to reduce emissions and human exposure at the Barts hospital estate, and to use their network to disseminate public health messages to vulnerable patients
- Expanding the Shoreditch Zero Emission Network into surrounding areas of Tower Hamlets and Islington, to promote the use of low-emission vehicles by business and put in supporting infrastructure
- Working with a variety of schools to reduce exposure and raise awareness about air pollution, as well as to tackle local emission sources (eg engine idling)

### Sustainable use of our resources

Our customers expect our plans to be sustainable in terms of cost and impact on the local and global environment. Our actions are pivotal in improving London's environment. We are reducing our emissions (both carbon and local air pollutants), we use new technologies and, crucially, we operate a reliable, high-capacity network. This enables London to be a dense, successful city and makes it possible for people to use lower-polluting services (including trains, buses, cycling and walking).

While delivery of our core transport system is the most important means by which we improve the environment we are also doing much to reduce the impact of our services.

### Reducing our carbon emissions

The Mayor has set London a target of a 60 per cent reduction in CO<sub>2</sub> emissions by 2025 from the 1990 level. Ground-based transport accounts for around 22 per cent of the Capital's CO<sub>2</sub> emissions and we are the biggest user of electricity in London. We are therefore in a prime position to reduce our electricity usage and lower carbon emissions and costs:

- All new Tube trains have regenerative braking: a technology that re-uses energy lost when train brakes are applied. It reduces the energy required and the waste heat expelled into tunnels. On the Victoria line, regenerative braking and other technology included with our new trains, signalling and power systems cuts the energy required to run our high frequency service by 34 per cent

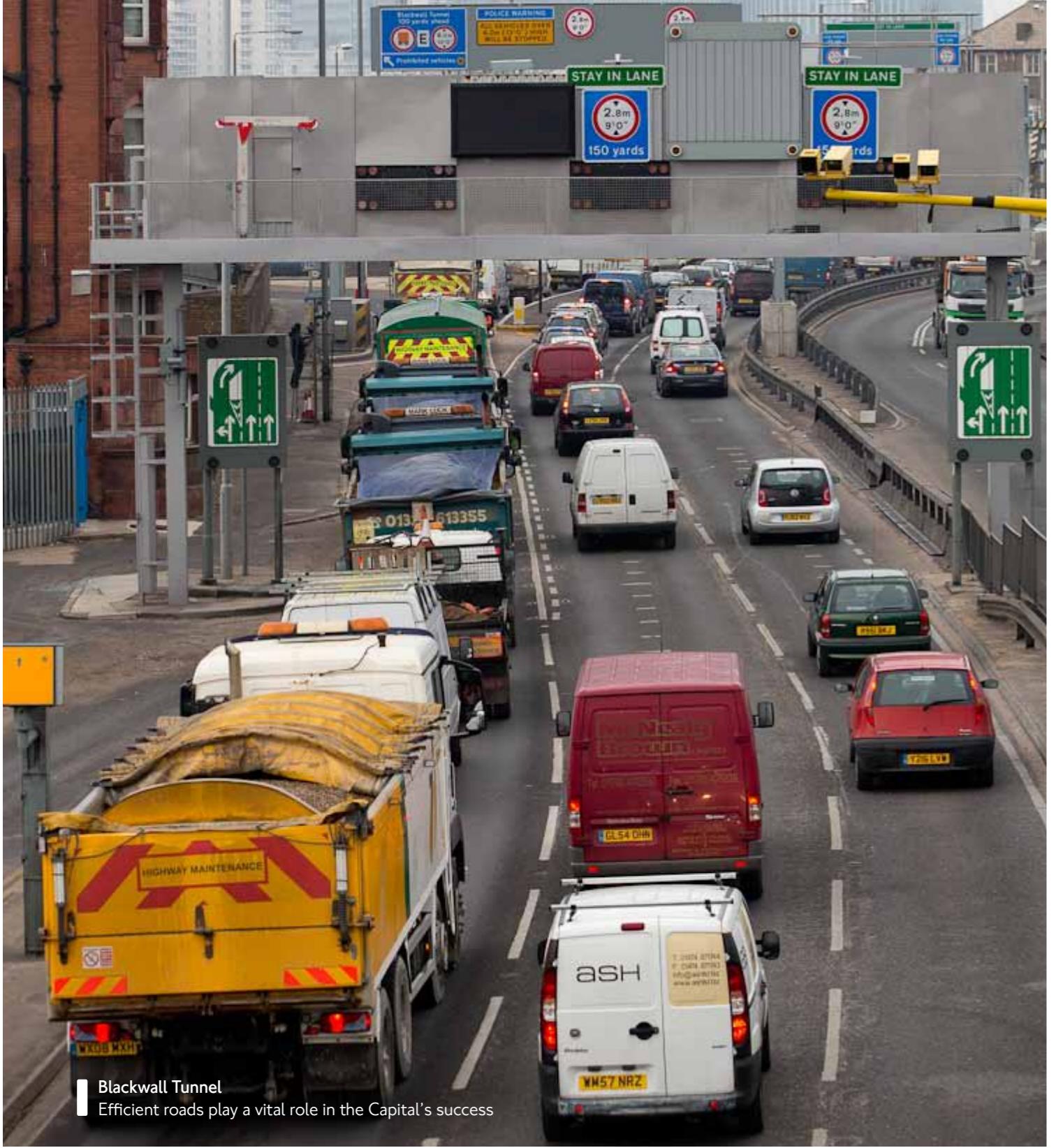
- We are continuing the introduction of low-energy technologies such as LED lighting and a central management system which will save around £20m in the cost of the 40,000 lights on the roads we manage
- We are using the Mayor's RE:FIT framework to save energy at our buildings
- We are diversifying our energy sourcing, expanding our use of low-carbon sources

The actions above help reduce carbon emissions and support our users and those we do business with to do the same by switching to more environmentally friendly forms of transport. Measures to improve air quality often also help reduce carbon emissions by improving fuel efficiency, switching to power sources other than fossil fuels or reducing road congestion.

### Energy procurement

We will work towards meeting the Mayor's target of generating 25 per cent of the Capital's energy from local sources by 2025. We aim to achieve this by purchasing electricity sourced from London low and zero-carbon electricity generators so long as there is no extra cost to the London tax and fare payer. Our aspiration is to achieve 20 per cent of our annual demand from these sources by 2016 and 40 per cent by 2020.

The intention is to use low-carbon energy generated in London to power some of our trains connecting directly to 30 megawatts of local sourced electricity by 2016. This will



reduce our energy costs and support our environmental strategy.

We will look to source an increasing proportion of our low-voltage electricity demand, supplying our stations, depots and traffic lighting from local low and zero-carbon generators by means of the Mayor's 'Licence Lite' initiative. This would mean that by 2020 all of our low-voltage demand would be met by low and zero-carbon generators located in London.

We are also looking to redevelop our power station at Greenwich, which could enable an even greater percentage of our power to come from low-carbon sources in the Capital.

**Table 5** Passenger journeys

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Higher is better</b>									
Bus	Millions	2386	2415	2450	2489	2495	2524	2551	2560
London River Service (including Woolwich Ferry)	Thousands	8.5	8.5	8.6	8.9	10.4	11.2	12.0	12.0
London Underground	Millions	1273	1313	1362	1400	1422	1444	1438	1448
DLR	Millions	102	107	116	123	129	128	111	117
London Overground	Millions	141	147	157	164	171	176	181	186
Tramlink	Millions	31.0	31.6	32.5	35.1	35.7	36.1	36.7	37.2
Emirates Air Line	Millions	1.6	1.8	2.2	2.6	2.7	2.7	2.8	2.9

**Table 6** Service volume (kilometres operated)

Service volume – kilometres operated									
Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Higher is better</b>									
London Underground	Millions	77	82	86	87	89	91	93	93
Bus	Millions	492	492	493	497	500	502	505	507
London Overground	Millions	8.1	8.3	8.5	8.5	8.5	8.5	8.5	8.5
DLR	Millions	5.8	6.3	6.5	6.8	6.8	6.9	6.9	6.9
London Tramlink	Millions	3.1	3.3	3.7	3.7	3.7	3.7	3.7	3.7

**Table 7** Reliability

Performance indicators	Unit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Lower is better</b>									
Bus excess wait time	Minutes	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
London Underground excess journey time	Minutes	4.95	4.75	4.56	4.54	4.30	4.06	4.03	4.01
London Underground total lost customer hours	Millions of hours	21.4	19.8	19.3	18.4	17.7	17.4	17.2	17.1
<b>Higher is better</b>									
Transport for London road network journey time reliability	Per cent	89.5	89.8	90.0	90.0	90.0	90.0	90.0	90.0
DLR on-time performance	Per cent	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0
London Overground public performance measure	Per cent	95.2	96.0	96.0	96.2	96.2	96.2	96.2	96.2

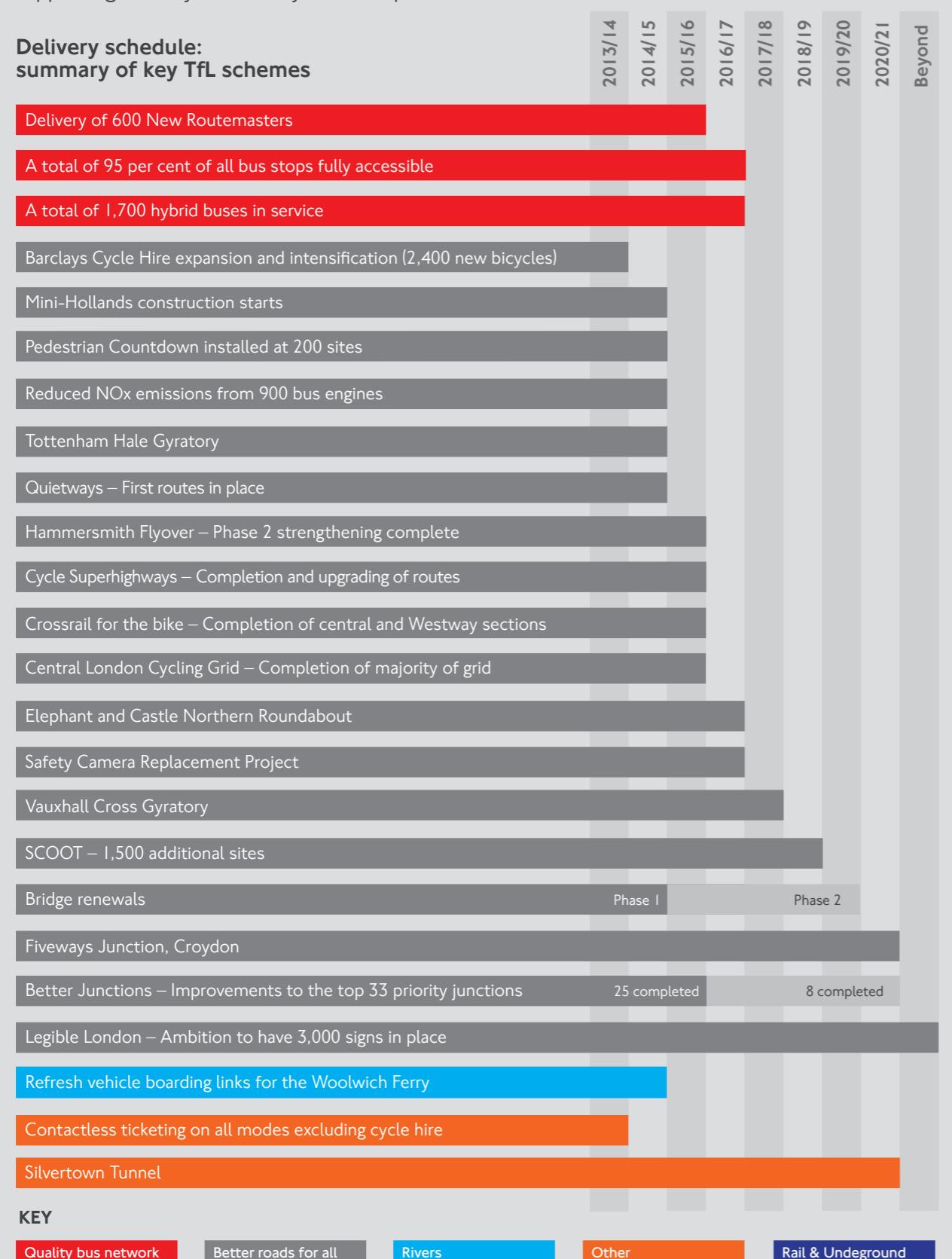
Note:

These figures do not take account of Crossrail or West Anglia, which will change the breakdown before the end of the plan. These changes will be incorporated at a future date when the proposed operations and associated performance indicators are further developed.

# Our delivery timeline

This diagram sets out the planned delivery timescales for key infrastructure schemes supporting delivery of the Mayor's Transport

## Delivery schedule: summary of key TfL schemes



Strategy. These are funded and there is significant activity planned during the period of this Business Plan.

## Delivery schedule: summary of key TfL schemes



# Our people: Dedicated to customer service

To keep London working and growing we need to recruit, reward and develop the right people.

By ensuring we have the right skills and behaviours we can achieve our business priorities. Sometimes we can better provide that service via a third party. Regardless of how we provide the service, we need to ensure our customers have a positive experience when travelling around the network and that our people demonstrate our values and behaviours of being active, accountable, fair and consistent, collaborative and direct.





## An organisation fit for London

We provide a range of transport services and are responsible for some of the largest infrastructure projects in Europe. We are committed to providing exceptional operational performance and improving services for the future through our capital programmes.

Our investment in infrastructure means we need to take a long-term view of our resourcing to attract and select people from diverse backgrounds with the skills, knowledge and behaviours we need. Workforce planning continues to be a key focus for us. We recognise that we need a variety of skills and a blend of permanent and non-permanent labour that is appropriate for each business area to meet its targets, whether operationally focused or part of capital delivery. This will be achieved by demonstrating that we are aligned to the UK employment market.

We are committed to recognising and rewarding our people for great work and creating a high-performance culture that benefits our customers, while providing value for money. The focus now is on embedding performance management at the heart of our organisation and this needs to run through everything, including recruitment, learning and development, and reward. We have to deliver more with less, and effective performance management will help us ensure our people are focused on operational performance and what is needed.

Our managers are essential to ensure that our people are supported so they can provide the best possible service to customers. We recognise that our people's experience of us is often guided by their relationship with their managers, so we are putting more emphasis on training so managers have the tools and skills they need to work effectively.

## Continually improving

Across our organisation we develop our people in line with our business goals, strategies and objectives. We also support them in their personal development by providing the training and experience required for their current and future roles. We identify and develop talent at all levels of the organisation so that our employees can reach their true potential with a wide range of career opportunities. In doing so we equip the business with the skills it needs to continuously improve and provide better customer experience.

We are always looking for ways to do things better, simpler and cheaper. We are currently exploring new technology to provide better customer service information, such as mobile devices being available to Tube station staff, allowing them to provide up-to-the-minute information to customers.

Over the past year, more than 1,000 senior managers have participated in the Frontline Experience Programme. These operational placements range from working at stations, depots and call centres to roles on buses and on our streets. The scheme ensures that senior managers understand the challenges our operational teams face and find out what really matters to customers. The success of the programme means that we are now making it a permanent part of the way we work and we are rolling it out to a wider group of managers, all of whom will spend two days working alongside operational colleagues from across the business.

We have launched new awareness training to improve bus drivers' understanding of older and disabled passengers' needs and to encourage the best customer service. Developed in partnership with lobbying organisation Transport for All and charity Age UK London, the training will be given to all of the Capital's bus drivers by the end of next year. Called 'All Aboard!', the scheme is part of plans to make London's bus network more accessible, a key priority for us and the Mayor. All routes in the Capital are served by low-floor, wheelchair accessible buses, which are fitted with retractable ramps that extend to pavement level for ease of access. The ramps are checked every day to ensure reliability. In addition, every bus is fitted with next-stop audio and visual announcements to assist hearing and visually impaired passengers.

We recognise that our organisation will continuously need to change to ensure we are able to provide our customers with the best possible service. One of the challenges we face is how we can help support the major programmes of investment within our Business Plan while running our network. A range of new initiatives is being launched, including the new engagement survey and the Communication and Engagement Programme. These provide an opportunity for our people to provide feedback and input. These initiatives focus on communicating our future direction, so that our employees understand our overall aims and strategies, and can clearly see why their work matters. They focus on two-way communication, giving employees a voice.

## Supporting jobs across the UK

Our main objective is to ensure that during change our people are supported and are actively involved in shaping our direction.

This year we have been engaging with station staff to shape our vision for the future of the Tube – more than 3,000 staff have participated in workshops facilitated by their peers or have contributed to conversations out on the network. This new, open approach of engaging much earlier and more openly, talking to staff about the possible options we have and seeking their input, instead of waiting until we have firm proposals, is in response to our commitment to manage change differently. We will be consulting formally on these proposals for change with our staff and trade unions.

### Investing in people for the future and building the industry

We believe in investing for the future, not just by upgrading our systems but also through bringing in a new generation of employees with fresh ideas and a willingness to learn from our experienced managers. We train apprentices and graduates in a number of disciplines to ensure we have the right skills for the future.

We have around 920 apprentices across 17 different disciplines and are involved in a number of programmes to support apprentices. We are a sponsor of the first transport industry school, the Royal Greenwich University Technical College (UTC). The UTC focuses on developing engineering skills to help ensure the industry will maintain the right skills levels in the future.

Each year we offer up to 150 graduate placements across 22 different programmes such as Transport Planning, Project Management, Commercial, Civil Engineering and Finance. Alongside this we are supporting an industry-wide internship programme which creates paid work experience opportunities to unemployed graduates in rail organisations. We achieved 'highly commended' for our graduate induction in the 2013 Association of Graduate Recruiters Awards and again featured in the Times Top 100 Graduate Employers in 2013.

Steps into Work is a one-year programme for learning disabled people designed to give participants the opportunity to gain practical experience of the workplace while learning and developing valuable skills needed for employment. The programme has been running for four years and three participants are now in paid work.

Our Skills and Employment Strategy identifies the need to provide leadership in working with our suppliers to develop new capability within the industry.

We have been working with a number of suppliers to develop our award-winning responsible procurement approach, 'Strategic Labour Needs and Training' (SLNT). This uses our investment to stimulate skills and employment opportunities for Londoners, ensuring in turn a competent and capable workforce benefits from the opportunities that our work programme generates. Since 2009, more than 3,000 apprenticeships have been created through the supply chain and we will continue to build on this.

Our transport services make London's dense centres of employment possible. The growth of the City, Canary Wharf, the West End and development areas across the Capital, from the Lea Valley to Vauxhall, are all testimony to the need for high-capacity transport connections.

We are critical to enabling the increase in London's employment, forecast to grow by nearly half a million by 2020. However, we have an even wider impact. Through our supply chain we directly support more than 60,000

jobs across the UK, of which 41,000 are outside London. More than 60 per cent of our procurement spend goes to suppliers outside the Capital.

The suppliers we work with are in the same industries that will fuel UK economic growth. We are a major purchaser of high-tech, precision engineering and manufacturing, and regularly employ the very best in computer programming for simulations and signalling control software.



## Supporting UK jobs

We work with tens of thousands of suppliers across the UK. These contracts not only support our transport system, they also support around 41,000 jobs outside the Capital helping to regenerate local economies.



**Wrightbus**  
Ballymena,  
Northern Ireland  
New Routemaster  
assembly



**Camira**  
Huddersfield,  
West Yorkshire  
Seat assembly



**BIC**  
Bristol  
Tactile units for  
pedestrians



**Tiflex**  
Liskeard, Cornwall  
New Routemaster  
flooring



**Alexander Dennis**  
Falkirk, Scotland  
Supplier of buses  
to operators



**Romag**  
Consett,  
County Durham  
Supplier of glass for  
'S stock' trains



**Cleveland Bridge**  
Darlington,  
County Durham  
Supplier of steel  
to Crossrail



**Tata Steel**  
Scunthorpe,  
Yorkshire  
Supplier of rails

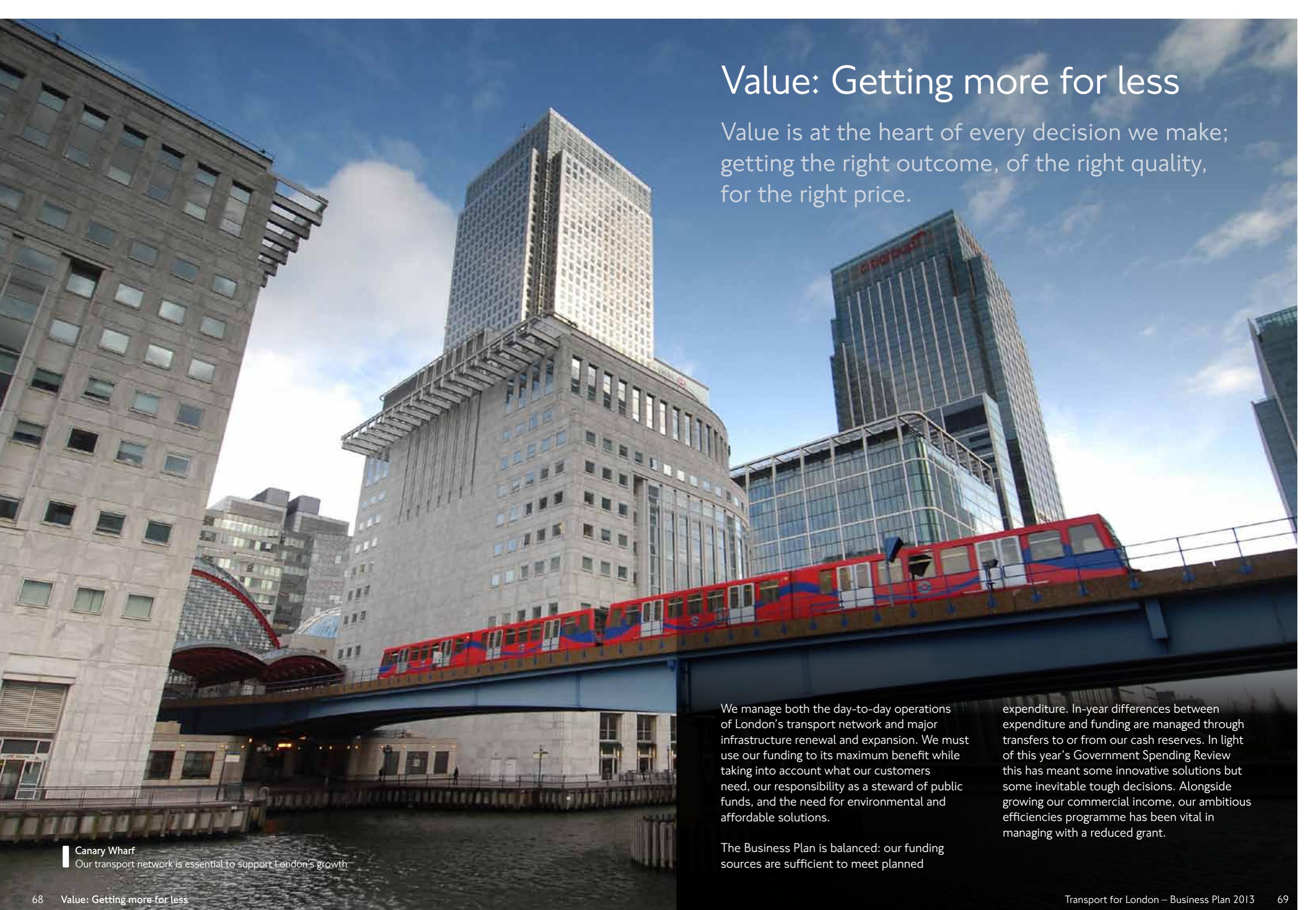


**Bombardier**  
Derby,  
Derbyshire  
Supplier of trains



**Trapeze**  
Trowbridge,  
Wiltshire  
Countdown bus  
information – iBus

Snapshot of 2012/13 data.



## Value: Getting more for less

Value is at the heart of every decision we make; getting the right outcome, of the right quality, for the right price.

### Canary Wharf

Our transport network is essential to support London's growth

We manage both the day-to-day operations of London's transport network and major infrastructure renewal and expansion. We must use our funding to its maximum benefit while taking into account what our customers need, our responsibility as a steward of public funds, and the need for environmental and affordable solutions.

The Business Plan is balanced: our funding sources are sufficient to meet planned

expenditure. In-year differences between expenditure and funding are managed through transfers to or from our cash reserves. In light of this year's Government Spending Review this has meant some innovative solutions but some inevitable tough decisions. Alongside growing our commercial income, our ambitious efficiencies programme has been vital in managing with a reduced grant.



## The 2013 Spending Review

### A fair deal for London

We are mindful of the tough economic environment and our previous Business Plan reflected the challenges that could emerge from changes to our settlement. Last year we assumed our level of grant would be cut and we included a large increase in our targeted efficiency savings (the New Savings Programme) to accommodate this.

The outcome of the Spending Review was a 25 per cent cut to our operational funding from central Government. Our excellent record of delivering investment was recognised, and our vital role in London's growth preserved through the protection of our capital grant to 2020/21.

Despite these savings the grant reduction still leaves a shortfall in funding and will require further efficiencies to be made. We

are committed to protecting key projects: the major Tube line and station improvements, the road upgrade, rail capacity increases and the renewal of our assets. Where necessary we have stopped or reduced the scale of some of our lower-priority activity. As an example, we will still meet our target of a 30 per cent reduction in Tube delays by 2015 (against a 2011 base) but at a 20 per cent lower cost. Alongside this we are developing commercial third party revenue schemes and are working on innovative solutions to further bring down costs. Examples are outlined below:

### Our efficiencies programme

Our Savings and Efficiencies Programme was established to meet the challenge of operating one of the world's most extensive transport networks while delivering a huge upgrade at a time of unprecedented financial pressure.

The programme, which is one of the largest in the public sector, is vital to ensure the organisation maximises value for our customers. Since 2009/10, we have continually worked to reduce costs and, out to 2020/21, we have identified more than £16bn of efficiencies which have allowed us to invest in infrastructure while holding down fares and managing with lower Government grant levels.

TfL represents greater value for money than ever before. We are more customer-focused and better placed to help London and the UK succeed. We have established a culture of rigorous efficiency which is demonstrated by our commitment to an ambitious cost reduction programme covering all areas of the business.

We have already secured nearly £12bn of savings to 2020/21, leaving £4.2bn still to be secured. This will be achieved by reducing back-office expenditure and driving out inefficient activity to protect front-line services

and our capital investment programme. Two examples of the way we are cutting costs are outlined below:

- Our vision for the future of the Tube – evolving expectations and technology are changing the way we provide customer service and are allowing us to provide a better service for greater value. People – our customers and staff – are at the heart of our vision and, in future, there will be more staff visible and available to customers. We will take advantage of technology to provide a simplified ticketing system and multi-modal information at every station, as well as online. Handheld technology and streamlining back-office processes mean staff no longer need to be confined to station control rooms or ticket offices. This allows them to be more easily seen and available to customers and is more efficient. When implemented, the savings would equate to around £270m over the term of this plan

From 2007/08 to 2015/16 we have driven down our real net costs on the bus network by 46 per cent while seeing a 13 per cent increase in passenger journeys.\*

- Innovative re-tendering and use of technology - a number of operational delivery contracts within Surface Transport are due for renewal within the next few years, including those for the bus network system, cycle hire and traffic signals maintenance. A rigorous tendering process sees us working with potential suppliers to seek the best possible value and challenge how the operational service will be delivered. We have a strong track record in this area. For example, at the previous re-let of the Congestion Charge contract in 2009, we secured savings that have amounted to £120m. For the next re-let we aim to not only maintain this level of saving but significantly increase it

We are consulting on removing the option to pay by cash on our buses so that customers can take advantage of cashless payments by card. If we move forward with this proposal those who currently pay by cash will benefit from cheaper fares. Once fully implemented, the operational cost savings will be around £130m over the life of the plan.

Such a target requires independent review. For this reason in May 2013 we commissioned PriceWaterhouseCoopers to review the governance, controls and processes associated with the efficiencies programme. The review recognised that while it would become progressively harder to secure the residual targeted savings, focused reviews conducted by our most senior staff would, in conjunction with reviews across the business, provide the right level of scrutiny to guarantee the savings.

#### Innovative ways of procuring

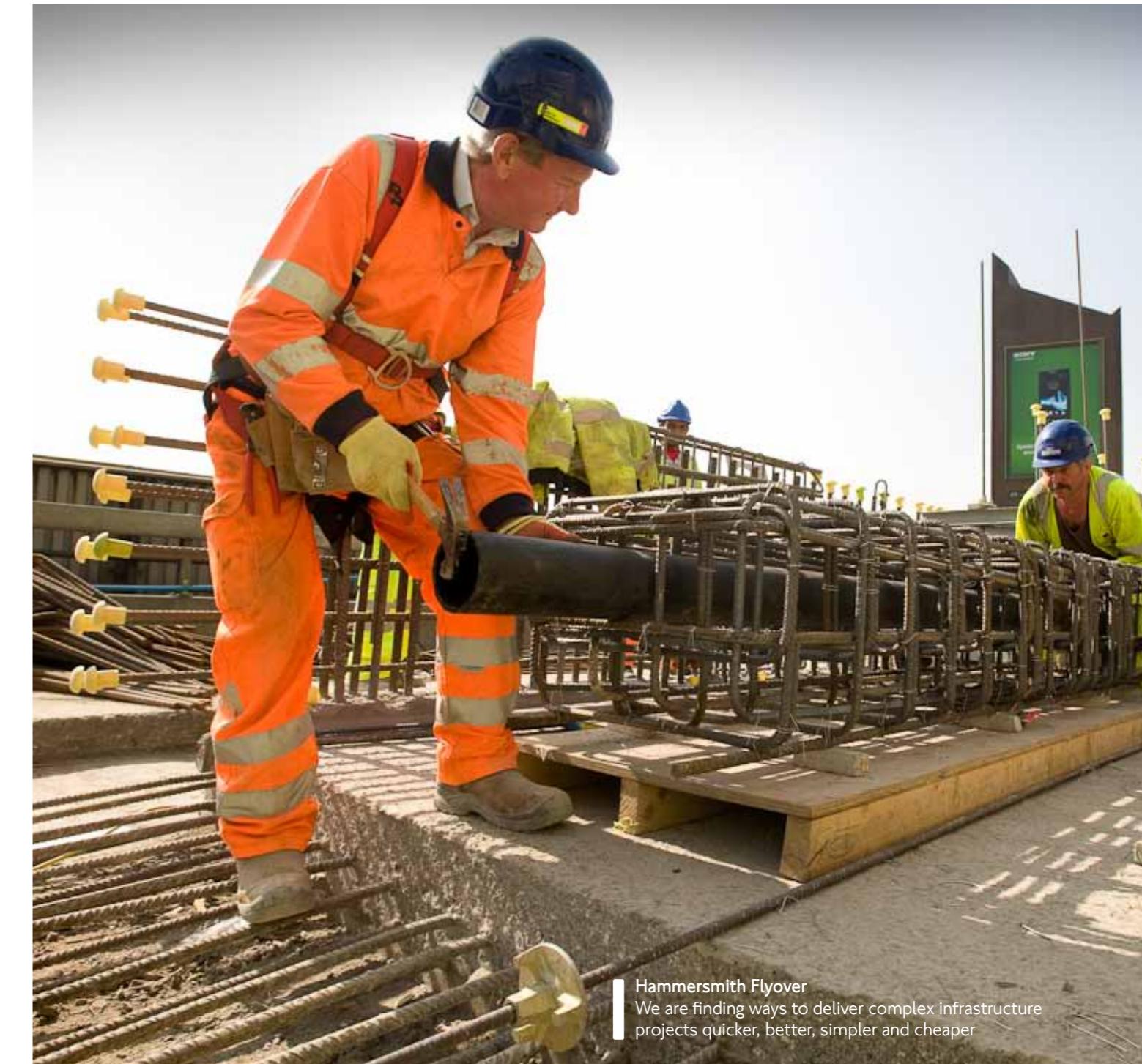
Our suppliers are critical to the successful delivery of major investment projects, and we are working with them to deliver these more efficiently. Together with eight London boroughs, we have saved more than 15 per cent on unit rates for road maintenance and renewal works by procuring through the London Highway Alliance Contract (LoHAC)†. More boroughs are expected to join the contract in the coming year.

The improvements to Bank station have pioneered a new procurement approach called 'Innovative Contractor Engagement'. This process was designed to get the benefits of early contractor involvement while protecting the commercial interests of each bidder. This resulted in a reduction in the overall cost, increased benefits from an improved and cost effective design and an efficient construction schedule.

At Bank, the improvements will contribute to a 19 per cent reduction in journey times through the station. The stable capital funding settlement secured will allow us to give our suppliers the assurance they need to allow this approach to be used on the Northern Line Extension and other projects.

\* In 2013/14 a form of Government support for bus services changed from being paid directly to bus operators to be paid through TfL. To present the numbers on a consistent basis this element has been removed from the quoted figures.

† The joint contracts could save up to £450m during the next eight years.



#### Hammersmith Flyover

We are finding ways to deliver complex infrastructure projects quicker, better, simpler and cheaper

The Structures and Tunnels Investment Portfolio (including Hammersmith Flyover) is being delivered under an 'Early Contractor Involvement' (ECI) arrangement. The main contractor works alongside the client and design team from concept design to completion in order to ensure that 'constructability', safety and minimising travel disruption are thoroughly considered and optimised before starting. This is about finding ways to deliver complex infrastructure projects quicker, better, simpler and cheaper.

Fifty out of 430 escalators on our London Underground network are due to be replaced

over the next 10 years. By working closely with suppliers, we have adopted a standard product, allowing a longer-term commitment to higher volumes to create economies of scale. This means that the cost of each escalator is now 57 per cent cheaper than the Underground's previous bespoke designs.

The bus network is kept under continuous review with up to 20 per cent of the total 700 route contracts re-let each year. Over the past five years, real bus subsidy has been reduced by 40 per cent, with London buses requiring a third less subsidy per passenger than other metropolitan areas.



## Our funding

### Fares and charges

Fares and other user charging represent the single largest category of our income. This Business Plan assumes that fares will increase at RPI plus one per cent each January for the period to 2015/16 over which we have a funding settlement with Government. However, in January 2014, our plan allows for fares to rise on average by RPI to help Londoners with the current high cost of living. We continue to work with the GLA on future economic assumptions on which to base the plan.

Every year, the Mayor makes his fares decision by balancing the need to keep them affordable while funding operations and investment in the network.

The Congestion Charge remains an important tool for managing central London's finite road space and keeping down congestion. Satisfaction from users of the scheme is at 82 per cent and is expected to remain high over the course of the plan. As part of the contract renewal to operate the scheme, customers will benefit from an improved system, making it easier to pay the charge online.

### Taxpayers

Government grant and retained business rates account for the second largest part of our funding. Without this we could not deliver the investment that our network badly needs in order to keep up with London's growing population. Our funding settlement is reviewed regularly; most recently in this year's Spending Review, which resulted in a reduction to our operating grant funding.

**Table 8** Prudential borrowing limits

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Incremental borrowing limit	345	650	600	700	700	600	600	600

Government grant is broken down into three main parts

- Operating grant: Subsidises the day-to-day running of the network. This was reduced by 25 per cent in the Spending Review and we only have confirmed operating funding to 2015/16
- Capital grant: Used to fund investment in our network. Central Government has recognised the need for stable capital funding and provided a constant grant to 2020/21
- Crossrail grant: Capital funding ring-fenced for building Crossrail. This was unchanged in the Spending Review

Retained business rates, which were first paid to us in 2013/14, are controlled by the GLA at the prerogative of the Mayor. They represent a share of London business rates that are paid to the GLA rather than central Government and have replaced a share of what was previously paid through Government operating grant.

### Prudential borrowing

A proportion of our funding comes from borrowing. This is undertaken within prudent limits set out in our funding agreement with central Government and approved by our Board. The maximum amounts we can borrow each year (beyond borrowing already held) are set out in the table above. We constantly assess the conditions and will only borrow where it is prudent to do so.

There is enormous scope for innovative retail solutions and quality service to come together to support the 10 million passenger journeys on our network each day.

We borrow from a variety of sources, with consideration given to the cost of borrowing, market conditions and the level of flexibility offered. These sources include:

- A £5bn Medium Term Note programme, created in 2004 and updated annually, which saw us become the first UK local authority to raise medium to long-term finance through the issuance of bonds independently of Government
- A £2bn Commercial Paper programme created in 2010, which made us the first UK local authority to raise short-term finance through the issuance of up to 12 months paper independently of Government
- The European Investment Bank, with loans linked to specific infrastructure projects
- The Public Works Loan Board
- Finance leasing arrangements, used for specific assets such as rolling stock
- Bank loans, including a £200m bank overdraft facility that is in place to provide contingent liquidity

We believe our proposed levels of borrowing remain affordable and consistent with prudent financial management, which is reflected in our strong credit ratings.

#### Commercial development

Work is under way to double our commercial income. We have one of the largest property

portfolios in London and we are working to retain it, invest in it and develop it in a way that provides much larger revenues for us. One example is the regeneration of Earls Court in which we are now a joint venture partner. Earls Court is one of 80 opportunities that we are currently developing.

In addition, we're improving our existing commercial assets and services, including retail, in and around our stations. There is huge scope for innovative solutions and quality service to come together to support the 10 million passenger journeys on our network each day. We're working with retailers, advertisers, telecoms companies and others to develop proposals and implement these at everything from major Underground stations like King's Cross and Canary Wharf, through to local Tube, bus and coach stations, and London River Service piers. Asset management and business development activity, coupled with property development, can generate more than £2bn over the years of the plan, while also transforming the stations environment and customer experience.

#### Third-party funding for specific projects

Where appropriate we make use of third-party contributions for a variety of specific projects. We look to work with third parties to fund transport improvement, including those through the statutory Section 106 and Section 278 processes.

Specifically, there are separate funding arrangements for Crossrail and the NLE.

#### Crossrail

The new tunnels are being built beneath London's busy streets



#### Crossrail

Nearly 10 per cent of the estimated £14.8bn project cost is being funded from third party sources. Section 106 contributions and receipts from the Community Infrastructure Levy (CIL) are expected to raise almost £600m towards the project. Another £600m is being raised through the Business Rates Supplement on non-residential properties in London and £250m in voluntary contributions has been secured from key stakeholders.

#### Northern Line Extension

The NLE is a £1bn project connecting Kennington Underground station on the Northern line with Battersea Power Station, via an intermediate station at Nine Elms. This project is essential to realising the opportunity

to regenerate the Vauxhall Nine Elms Battersea Opportunity Area (VNEB OA) and will help to deliver up to 25,000 new jobs and 16,000 new homes as part of wider regeneration plans.

The project will be financed by borrowing, repaid entirely from third-party contributions comprising Section 106 and CIL receipts and income from incremental business rates. Section 106 and CIL receipts will come from certain developments within the VNEB OA. The retention of incremental business rates will be permitted by the Government under the plans for designation of the VNEB regeneration area as an Enterprise Zone. Business rates receipts will be retained for project funding from new development expected to occur within the future Enterprise Zone boundary.



## Sustainable use of our resources

Our customers expect our plans to be sustainable both in terms of cost and our impact on the local and global environment. We are pivotal in improving London's environment. Firstly we will reduce our own emissions (both carbon and local pollutants). Secondly we help demonstrate new technologies that promote emerging technologies. Finally, and most importantly, we operate a reliable, high-capacity network. This enables London to be a dense, successful city and makes it possible for people to use low-polluting services (including trains, buses, cycling and walking).

While delivery of our core transport system is the most important element by which we improve the environment there is much we are doing to reduce the impact of our services.

### Reducing our carbon emissions

The Mayor has set London a target of a 60 per cent reduction in CO<sub>2</sub> emissions by 2025 from a 1990 base. Ground-based transport accounts for around 22 per cent of London's CO<sub>2</sub> emissions. We are the biggest user of electricity in London, and in a prime position to reduce our electricity usage and therefore lower carbon emissions and costs:

- All of our new Tube trains have regenerative braking – a technology that re-uses energy lost when train brakes are applied.

It reduces the energy required and the waste heat expelled into tunnels. On the Victoria line, using regenerative braking and other technology included with our new trains, signalling and power systems cuts the energy required to run our high-frequency service by 34 per cent

- We are continuing the introduction of low-energy technologies such as LED lighting and a central management system which will save around £20m in the cost of the 40,000 lights on the roads we manage
- We are using the Mayor's RE:FIT framework to save energy at our buildings
- We are diversifying our energy sourcing, expanding our use of low-carbon sources

These actions reduce carbon emissions and support our users and those we do business with to do the same by switching to more environmentally friendly forms of transport. Measures to improve air quality, described earlier in this document, often also help reduce carbon emissions by improving fuel efficiency, switching to power sources other than fossil fuels or reducing road congestion.

## Managing risks

Our ability to deliver this plan depends on many factors. These include achieving the Efficiency Programme and Commercial Development target, which is essential to keep the plan balanced. We must also consider risks in operating, maintaining and upgrading a diverse transport network in the context of London's economic and political climate.

We currently capture strategic risk through the Strategic Risk Register. The objective of this is to capture the key non-project risks that could impact the delivery of our strategic objectives. Our strategic risk register is available publicly and discussed in open session at the Audit and Assurance Committee. We are working with the committee to enhance the way we manage strategic risks.

Our Investment Programme is a source of many of TfL's risks. Our project risks are actively managed both at a portfolio (ie a collection of programmes with the same aim) and a programme level to ensure that common risks are identified and managed across TfL's programme. Projects are thoroughly reviewed through our gateway review process, which reassesses projects continually and at key stages such as immediately before detailed design or construction.

Our project risk management is standardised across the business and meets the ISO31000 standard and the HM Treasury Management of Risk requirements. All project risks are assessed

and the range of potential financial implications is calculated. We hold sufficient risk funding at a programme level to cover the predicted impact on our plan. We also hold an additional contingency provision across our organisation to cover adverse effects that may occur outside of this.

Our financial plans, including this Business Plan, are subject to independent review and approval by our Board. In addition, the Independent Investment Programme Advisory Group (IIPAG) provides independent assurance and expert advice to the Mayor of London concerning our Investment Programme. These are two examples, bolstered by many other independent reviews, of initiatives where we are seeking a wider view of our plans to identify and resolve potential risks.

## Financial tables

**Table 9** TfL funding, income, operating and capital expenditure plan, part a: TfL operating plan

TfL Group (£m)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Fares income	4,093	4,323	4,715	5,048	5,361	5,836	6,426	6,875	42,676
Other operating income	642	678	719	762	762	788	813	828	5,993
Total operating income	4,735	5,001	5,434	5,810	6,123	6,623	7,240	7,703	48,669
Operating expenditure (net of third-party contributions)	(5,931)	(6,161)	(6,342)	(6,543)	(6,678)	(6,978)	(7,344)	(7,549)	(53,527)
Operating Margin	(1,196)	(1,160)	(908)	(733)	(555)	(355)	(104)	153	(4,858)
Debt interest	(346)	(372)	(416)	(461)	(507)	(543)	(584)	(624)	(3,853)
Interest Income	18	22	37	43	47	50	16	28	260
Group items	(13)	(16)	(11)	(50)	(39)	12	53	289	225
Margin	(1,536)	(1,527)	(1,298)	(1,201)	(1,054)	(836)	(619)	(154)	(8,225)
General Grant	1,094	835	629	640	651	662	673	684	5,867
Overground Grant	29	28	29	30	31	32	33	34	247
GLA precept	6	6	6	6	6	6	6	6	48
Business Rates Retention	803	828	853	883	914	946	979	1,013	7,221
Other revenue grants	37	6	0	0	0	0	0	0	43
Total revenue grants	1,968	1,704	1,517	1,559	1,602	1,646	1,691	1,738	13,425
Surplus/ (deficit) to fund capital plan	431	177	220	357	548	810	1,072	1,584	5,200

**Table 10** TfL funding, income, operating and capital expenditure plan, part b: TfL capital plan

TfL Group (£m)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Capital expenditure	(1,751)	(2,525)	(2,519)	(2,269)	(2,644)	(2,104)	(2,496)	(3,215)	(19,523)
Third-party contributions - capital	85	35	35	29	99	143	149	156	732
Capital expenditure (net of third-party contributions)	(1,665)	(2,490)	(2,484)	(2,240)	(2,545)	(1,961)	(2,347)	(3,060)	(18,791)
Sales of property and other assets	70	24	33	59	17	132	0	248	581
Net capital expenditure (Core TfL)	(1,595)	(2,466)	(2,451)	(2,181)	(2,528)	(1,829)	(2,347)	(2,812)	(18,210)
Crossrail net activity	(1,757)	(1,619)	(1,632)	(1,017)	(613)	(335)	(88)	(13)	(7,074)
Total capital expenditure	(3,352)	(4,085)	(4,083)	(3,198)	(3,141)	(2,165)	(2,436)	(2,825)	(25,284)
Financed by:									
Operating surplus/ (deficit) from above	431	177	220	357	548	810	1,072	1,584	5,200
Investment Grant	895	909	925	941	957	973	990	1,007	7,597
Metronet Grant	184	0	0	0	0	0	0	0	184
Other Capital Grants	100	141	213	323	264	60	0	0	1,100
Crossrail funding sources	2,051	1,687	906	91	121	86	25	25	4,992
Working Capital	(376)	583	(52)	(10)	63	(304)	(145)	48	(194)
Net borrowing and reserve moments	67	588	1,872	1,496	1,188	539	493	161	6,405
Total	3,352	4,085	4,083	3,198	3,141	2,165	2,436	2,825	25,284

**Table 11** London Underground and London Rail income, operating and capital plan

TfL Group (£m)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
<b>Fares Income</b>									
London Underground	2,286	2,439	2,635	2,824	3,002	3,184	3,313	3,484	23,168
London Rail	307	330	440	490	546	743	1,106	1,292	5,255
<b>Total Fares Income</b>	<b>2,593</b>	<b>2,769</b>	<b>3,075</b>	<b>3,315</b>	<b>3,548</b>	<b>3,927</b>	<b>4,419</b>	<b>4,776</b>	<b>28,422</b>
<b>Other Operating Income</b>									
London Underground	196	210	134	148	172	179	185	192	1,416
London Rail	22	14	14	15	15	22	37	43	181
<b>Total Other Operating Income</b>	<b>218</b>	<b>224</b>	<b>148</b>	<b>163</b>	<b>188</b>	<b>200</b>	<b>222</b>	<b>234</b>	<b>1,597</b>
<b>Operating Expenditure (net of third-party contributions)</b>									
London Underground	(2,069)	(2,174)	(2,150)	(2,174)	(2,171)	(2,213)	(2,308)	(2,329)	(17,587)
London Rail	(356)	(400)	(483)	(505)	(551)	(735)	(883)	(928)	(4,842)
<b>Total Operating Expenditure</b>	<b>(2,425)</b>	<b>(2,574)</b>	<b>(2,633)</b>	<b>(2,679)</b>	<b>(2,722)</b>	<b>(2,948)</b>	<b>(3,190)</b>	<b>(3,257)</b>	<b>(22,429)</b>
<b>Renewal &amp; reliability projects</b>									
London Underground net renewal & reliability projects	(163)	(160)	(122)	(108)	(80)	(53)	(55)	(47)	(788)
<b>Net Capital Expenditure</b>									
London Underground	(1,263)	(1,562)	(1,371)	(1,284)	(1,373)	(1,086)	(1,108)	(1,378)	(10,426)
London Rail	(63)	(344)	(434)	(271)	(412)	(182)	(106)	(66)	(1,876)
<b>Net Capital Expenditure</b>	<b>(1,326)</b>	<b>(1,906)</b>	<b>(1,806)</b>	<b>(1,555)</b>	<b>(1,785)</b>	<b>(1,269)</b>	<b>(1,213)</b>	<b>(1,443)</b>	<b>(12,302)</b>
<b>Net Investment Spend</b>	<b>(1,489)</b>	<b>(2,066)</b>	<b>(1,928)</b>	<b>(1,662)</b>	<b>(1,865)</b>	<b>(1,321)</b>	<b>(1,268)</b>	<b>(1,490)</b>	<b>(13,090)</b>
<b>Net Service Expenditure</b>									
London Underground	(1,013)	(1,248)	(875)	(593)	(449)	11	27	(78)	(4,217)
London Rail	(90)	(400)	(463)	(271)	(403)	(152)	155	341	(1,282)
<b>Net Service Expenditure</b>	<b>(1,103)</b>	<b>(1,647)</b>	<b>(1,338)</b>	<b>(864)</b>	<b>(852)</b>	<b>(141)</b>	<b>182</b>	<b>263</b>	<b>(5,500)</b>

**Table 12** Surface Transport income, operating and capital plan

TfL Group (£m)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
<b>London Buses</b>									
Bus fares income	1,500	1,555	1,640	1,733	1,813	1,908	2,007	2,099	14,254
Bus Contract costs & ticket commission	(1,873)	(1,981)	(2,063)	(2,167)	(2,257)	(2,365)	(2,461)	(2,557)	(17,723)
Direct Bus Subsidy	(373)	(426)	(424)	(434)	(444)	(456)	(454)	(458)	(3,469)
Other Bus Income	26	26	25	21	22	22	23	24	188
Bus Operating Expenditure	(94)	(91)	(92)	(94)	(95)	(99)	(103)	(106)	(773)
Bus Capital Expenditure	(79)	(110)	(71)	(22)	(25)	(25)	(48)	(32)	(412)
Net Bus Service Expenditure	(521)	(601)	(562)	(528)	(543)	(558)	(581)	(572)	(4,466)
<b>Other Surface Transport</b>									
Other Operating Income	353	358	366	371	367	372	371	369	2,926
Other operating Expenditure	(756)	(745)	(769)	(880)	(880)	(854)	(863)	(874)	(6,621)
Other Net Capital Expenditure	(175)	(331)	(446)	(435)	(329)	(296)	(327)	(281)	(2,621)
Net Service Expenditure	(1,098)	(1,320)	(1,411)	(1,473)	(1,385)	(1,336)	(1,400)	(1,359)	(10,782)

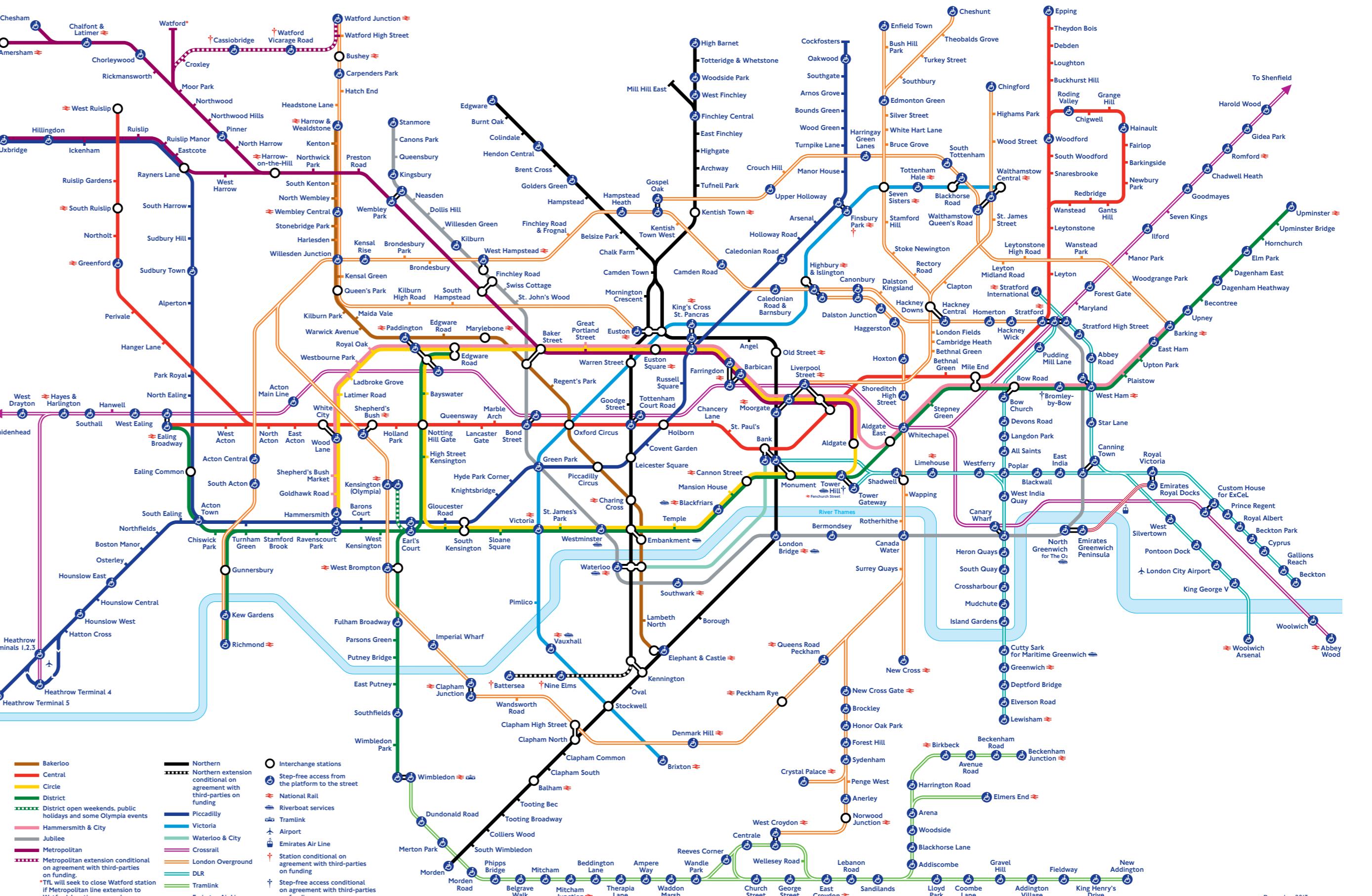
# Rail Transport Network at 2021

**Table 13** Corporate income, operating and capital plan

TfL Group (£m)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Other Operating Income	39	63	174	202	181	189	194	197	1,238
Operating Expenditure (net of third party contributions)	(612)	(602)	(656)	(610)	(638)	(656)	(668)	(705)	(5,147)
Net Capital Expenditure	(16)	(119)	(128)	(169)	(389)	(240)	(759)	(1,055)	(2,875)
Net Service Expenditure	(589)	(658)	(609)	(578)	(847)	(707)	(1,234)	(1,563)	(6,784)

**Table 14** Crossrail financial summary

TfL Group (£m)	Prior Years	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Sponsors' funding commitment	(5,355)	(2,247)	(2,002)	(1,481)	(549)	(622)	0	0	0	(12,257)
External funding sources of which:										
DfT committed funding	(2,114)	(1,123)	(1,082)	(800)	0	0	0	0	0	(5,119)
GLA funding (incl. Crossrail Business Rate Supplement)	(2,689)	(884)	(529)	0	0	0	0	0	0	(4,102)
Developer contributions	(25)	(35)	(76)	(106)	(91)	(121)	(96)	(25)	(25)	(600)
Sale of surplus land	0	0	0	0	(164)	(194)	(87)	0	0	(445)
Cash funding from TfL Group	(528)	(205)	(316)	(575)	(294)	(307)	183	25	25	(1,992)
Total funding	(5,356)	(2,247)	(2,002)	(1,481)	(549)	(622)	0	0	0	(12,257)





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