

Board



Date: 19 July 2016

Item: Commissioner's Report

This paper will be considered in public

1 Summary

- 1.1 This report provides an overview of major issues and developments since the meeting of the Board held on 17 March 2016 and updates the Board on significant projects and initiatives.

2 Recommendation

- 2.1 **That the Board note the report.**

List of appendices to this report:

Commissioner's Report – July 2016

List of Background Papers:

None

**Mike Brown MVO
Commissioner
Transport for London
July 2016**



Commissioner's Report

19 July 2016

MAYOR OF LONDON



**TRANSPORT
FOR LONDON**
EVERY JOURNEY MATTERS

1 Introduction

This report provides a review of major issues and developments since the meeting of the Board held on 17 March 2016 and updates the Board on significant projects and initiatives.

Sadiq Khan was elected as the new Mayor of London and with the new focus and energy he has brought, we have already started to deliver his manifesto commitments.

We've worked closely with the Mayor to announce a comprehensive consultation on cleaning up London's air, which will start in the summer. He has also announced that the Night Tube will start on the Central and Victoria lines on 19 August, boosting London's night time economy.

I am also leading a full review of TfL for the Mayor, which has identified the savings necessary to fund the first two years of his freeze of TfL fares, and in September bus passengers will be able to take a second journey within an hour for free using the Bus Hopper ticket. I will find further savings, by improving procurement, reducing duplication and freezing recruitment for all but the most essential roles.

I'm pleased that the Mayor has appointed Val Shawcross CBE as Deputy Mayor for Transport. Val brings an unrivalled wealth of knowledge to the role with 16 years experience of scrutinising our work as a London Assembly Member. She is already playing a crucial part in delivering for London in the coming years, and I look forward to working closely with her.

In April, I appointed Mark Wild as the new Managing Director of London Underground. Mark's career in transport spans 30 years. Most recently he was based in Australia as Special Advisor to the Minister and Secretary of the State Government of Victoria, and Chief Executive of Public Transport Victoria. Mark has managed the world's biggest tram network, as well as large suburban railway and bus services. He has also overseen large capital and maintenance programmes. In addition, he has experience of working with us before on major Tube projects, including the introduction of modern signalling on the Jubilee and Victoria lines.

Changes to the Board

Following his election as Mayor of London, Sadiq Khan has appointed himself as the Chair of TfL and Val Shawcross CBE as his Deputy Mayor for Transport and as the Deputy Chair of TfL. Until the recruitment process for the Board concludes, the Mayor has reappointed the following Members until 5 September 2016: Sir John Armitt CBE, Sir Brendan Barber, Baroness Grey-Thompson DBE, Angela Knight CBE, Michael Liebreich, Eva Lindholm and Keith Williams.

Eight Members left the Board in May and June: Peter Anderson, Richard Barnes, Charles Belcher, Roger Burnley, Brian Cooke, Daniel Moylan, Bob Oddy and Steve Wright. I would like to thank each of them for their contribution to TfL during their time in office.¹

¹ This paragraph was amended after publication

2 Delivery

EU referendum

On 23 June the UK voted to leave the European Union. It will be some time before the timeline and detail of what this means becomes clear. In the meantime, nothing changes to the way in which we operate; we will continue to deliver transport services for London to help maintain its position as one of the world's leading cities.

Cost and efficiency review

A major cost savings and efficiencies review of how we are organised and operate is under way.

The savings identified below are expected to be delivered in the first two years of this mayoralty. The full plan for cost savings over the mayoral term will be set out in the New Transport Plan for London in the autumn.

We have been using the review to:

- Eliminate wasteful duplication across all of our functions, including our engineering operations and IT departments, while continuing to improve the transport network for everyone. We estimate this will deliver cost savings of between £20-25m
- Drive down costs, identify income opportunities and ensure we are as efficient and effective as possible through value engineering investment projects

- Improve procurement and the renegotiation of contracts from suppliers and other third party spend which account for more than two thirds of our total budget. We estimate this will deliver cost savings of around £50m-£60m
- Reprioritise and consolidate IT projects, which delivered relatively low benefits. We estimate this will deliver cost savings of £20m-£30m

To lead this work I have appointed Andrew Pollins as the Transformation Director, following his recent role as the Interim Managing Director for London Underground. Andrew will lead a programme of change to implement the opportunities identified in the review, alongside other transformation already under way across the organisation and ultimately ensure we realise the cost savings and benefits identified to date.

We are using the lessons learned from previous cost savings programmes to ensure that our new programme is transparent and reported in the clearest way possible.

In addition, I have put in place a number of measures to drive down costs. This has included freezing recruitment for all but the most essential roles and significantly cutting around 3,000 agency contractors. We have already reduced the number of IT contractors by more than 100, which will save around £2m, with more to be saved in other areas too.

I will continue to update the Board on this programme of transformation as it progresses.

Impacts of recent weather

On 22 and 23 June London experienced very heavy rainfall, which overloaded surface water and sewer systems and caused flooding incidents and delays across the transport network.

London Underground experienced significant disruption at various points of the day, mainly on the Circle, District and Metropolitan lines. On the London Overground the major issue was flooding at Surrey Quays as drains were simply unable to cope with the volume of water.

Despite disruption the core service on the East London line continued. Many sites on the road network were affected by flooding, leading to road/lane closures and bus diversions. The most significant incidents and other road closures across the Capital, including power failures affecting some traffic signals, impacted the performance of the road network and led to the diversion of around 60 bus routes, with some services in east and west London experiencing particularly long delays.

We provided information across many channels to help keep customers and users informed about the effects of the weather on the transport network. Customer communications were coordinated with industry partners, including Network Rail, the Rail Delivery Group and the Train Operating

Companies, to ensure a joined up response across London's transport services.

A full debrief and lessons learnt exercise is now under way. We are working with our partners to review procedures and plans currently in place, and to identify any further measures to mitigate and manage future events.

Night Tube

We are preparing to launch the Capital's first 24-hour weekend Tube service from Friday 19 August on the Central and Victoria lines. The service is expected to play a vital role in the Capital opening up a host of new opportunities, supporting around 2,000 permanent jobs and boosting London's night-time economy by £360m. The start of services on the Jubilee, Northern and Piccadilly lines will follow in phases during the autumn.

The service will help cut night-time journeys by an average of 20 minutes, with some travel reduced by more than an hour, and will enable shift-workers who rely on public transport to get back to outer London.

Demand for night-time travel is on the rise. Late night Tube usage is increasing at double the rate of daytime trips and demand for travel on night buses has risen by more than 170 per cent since 2000.

To meet the expected demand for Night Tube services, there will be at least six trains per hour through central London on all Night Tube lines between 12:30am and 5:30am.



We have a comprehensive plan in place to address noise issues and concerns in the lead up to Night Tube operations, and once the service has begun. We have been meeting with local stakeholders and authorities, passenger and accessibility groups and elected representatives to discuss our plans and listen carefully to their concerns and issues. We have also sought suggestions for other groups we should meet who may not have been included in our engagement to date.

Where concerns have been raised, we have carried out additional track renewal and rail grinding works to ensure that the tracks are in the best possible condition. Once services begin we will continue to liaise with lineside neighbours and carry out work to prevent noise becoming a problem.

We recently set up the Noise and Vibration Working Group to address all such issues across the LU network, prioritising Night Tube critical locations along the Victoria and Central

lines. The working group includes community relations specialists, track engineers, track maintenance and improvement representatives as well as noise and vibration engineers. The group will work with our contact centre operating agents to ensure that customers are informed about what action is being taken on their complaints.

Review of ticket office closures

The Mayor has pledged to 'Examine the impact of ticket office closures and explore what could be done at key locations to ensure everyone is able to purchase tickets and access the information they need to get around London while keeping passengers safe.'

The purpose of this review is to examine the customer impact of the recent London Underground ticket office closures to ensure that customers, particularly at key locations, are able to:

- Purchase the right ticket

- Access the information they need to get around London
- Travel safely on the network

The review, commissioned by and reporting to the Mayor's office, is recommended to be carried out by an independent body. We will provide input and information as required. A formal process of regular engagement and collaboration will be established to ensure speedy consideration of data and inputs to the report, and to advise on the background and implementation of London Underground's new station operation model.

We will look at:

- Ticketing and payment options including the ease of purchasing tickets for travel
- Customer information including the benefits of new handheld devices for staff
- Visitor offering – including at Tube stations both with and without Visitor Centres
- The quality of customer service provided at Tube stations
- Accessibility and customer service for all disabled customers including those with hidden disabilities, such as communications problems or learning disabilities
- Ticket hall congestion

Views may be sought to inform the review, with recommendations to the Mayor's office. It is envisaged that either a draft or proposed 'final' report would then be tabled by the Deputy Mayor for Transport for consideration by the TfL Board.

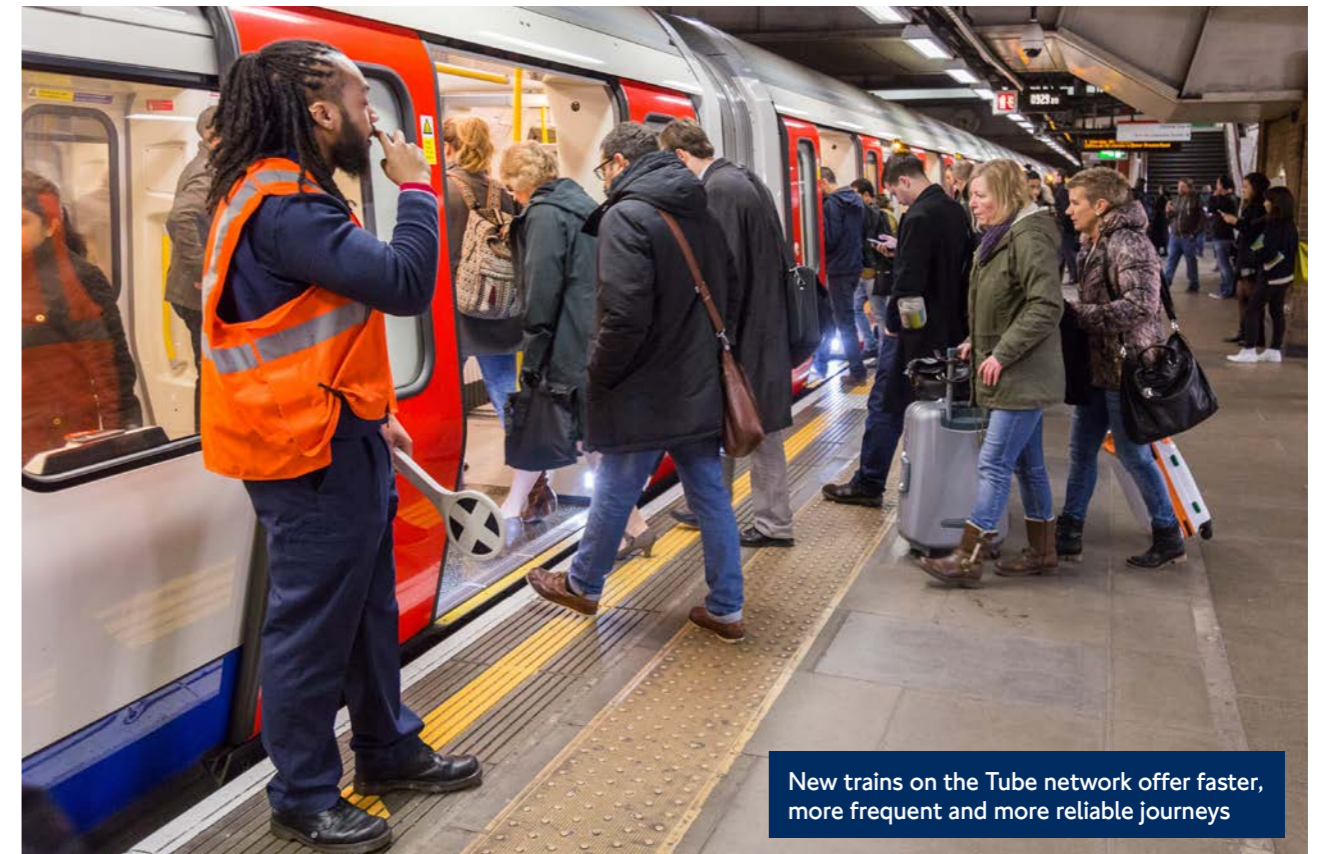
London Underground (LU) Performance

LU achieved a record customer satisfaction survey score of 85 in all four quarters of 2015/16, exceeding the target of 84. Scores have remained stable at 85 during Periods 1 and 2 of 2016/17.

On 3 April, we launched our new station staffing arrangements and we have been closely monitoring the impact of the changes on customers, employees and stakeholders. This includes regular customer satisfaction surveys, findings from Mystery Shopping Surveys, a ticketing survey, and input through regular engagement and meetings with customers and stakeholders.

Our recent ticketing survey showed an increase from 36 per cent to 60 per cent in employees' ability to help customers at ticket machines after the new staffing model was introduced. We have also seen customer satisfaction scores rise in this regard from 84 to 87.

An important part of the transformation has been moving people from back rooms and offices, out into ticket halls and platforms



where they can better help customers. We have also introduced new roles and processes and equipped all customer service assistants with the latest technology to ensure that they can help passengers. The new station model will deliver around £50 million a year in savings which will be reinvested to make further improvements for our customers.

Passenger journeys in 2015/16 saw a new high at 1,349.3 million, an increase of 3.4 per cent (43.9 million journeys) from last year, and 5.6 million more than budget. Demand continued to rise at the start of 2016/17 – year-to-date journeys at the end of Period 2 are up six per cent compared with the same period last year.

We met our underlying service performance 2015/16 targets, with full year results for both lost customer hours (LCH) and excess journey time (EJT) better than target (excluding the impact of industrial action). This was despite Period 12 being affected by external contractors digging through the roof of the Central line tunnel near White City, and problems at the

Bow substation, which affected Central line performance in Period 13.

We have received two improvement notices from the Office of Rail and Road (ORR) for two incidents in Period 3. One related to an embankment failure between Chorleywood and Rickmansworth stations. Improvements have been discussed and agreed between LU and ORR and LU has taken immediate action to tighten procedures. The other related to an injury to a crane controller involved in engineering work on the Circle and Hammersmith & City lines. LU is taking steps to comply with the notice.

London Underground investment New Tube for London

This programme is a coordinated series of infrastructure, signalling and train renewals and replacements on the Piccadilly, Central, Bakerloo and Waterloo & City lines. Train manufacturers' bids are due back for evaluation this autumn. We expect the procurement process to be completed by autumn 2017.



The signalling and train control system procurement process has begun, and suppliers' responses are being evaluated. The signalling system will be rolled out first on the Piccadilly and Waterloo & City lines in the mid-2020s.

The new trains will provide improved accessibility and safety features, including level access between the train and the platform, wider doors and more space for wheelchair users or pushchairs. They will be introduced first onto the Piccadilly and Waterloo & City lines, followed by the Bakerloo and Central lines.

The trains will mean faster, more frequent and more reliable journeys for our customers. They will also provide greater capacity, more comfortable journeys and offer the first walk-through, air-cooled carriages for our customers using the deep-level Tube.

Peak hour capacity in central London on all four lines will be boosted:

- The Piccadilly line by 60 per cent (the equivalent of up to 21,000 customers per hour)
- The Waterloo & City line by 35 per cent (the equivalent of up to 7,000 customers per hour)
- The Bakerloo line by 25 per cent (the equivalent of up to 12,000 customers per hour)
- The Central line by 30 per cent (the equivalent of up to 14,500 customers per hour)

The trains will serve London for around 50 years and will be future-proofed to harness new advances in technology.

Four lines modernisation – Metropolitan, District, Circle and Hammersmith & City lines

Of the planned 80 new, walk-through, air-conditioned S stock trains for the District line, 59 have been delivered. This follows

the introduction of S stock trains on the Metropolitan, Circle and Hammersmith & City lines. All trains will be in service by December 2016.

Tests of the prototype automatic train control (ATC) train have continued with speeds of up to 80km/h being reached. This is significant because this is the first time that an S stock train has been run at full speed under Communications Based Train Control (CBTC). It demonstrates that the system is capable of controlling the train in a customer service environment. Lessons from these tests are being built into the design of the pre-production train which will start to have the ATC system installed in July 2016.

Thales has begun its installation work on the first ATC migration area between Edgware Road and Hammersmith, as scheduled, and the Hammersmith Service Control Centre has been handed over to Thales to fit the signalling equipment. The new signalling equipment room at Whitechapel is nearer to completion thanks to our work with Crossrail. The room is needed to house equipment that Thales will install for the ATC signalling system.

Following weeks of planning meetings, we arranged to use Crossrail's existing road closures and track possessions to start building work on the Whitechapel signalling equipment room. During two weekend closures, we constructed the concrete base and steel frame of the building. Work was completed cheaper and in a safer environment than would have otherwise been possible, with less disruption

to our customers. We also deployed more building materials on site, which will accelerate the remaining works.

Work continues to reconfigure the track, and half the sites requiring a new layout have now been completed. This will improve reliability ahead of increases in train frequencies from the new signalling system. The work involves modifying some key junctions and crossings to enable them to operate more efficiently.

The programme continues its focus on cost savings and delivering the benefits early, and it is forecast to complete ahead of target and within financial authority.

Victoria line

As part of our modernisation plans, we carried out works last summer that will allow the operation of 36 trains per hour on the Victoria line. On 15 May, we introduced a new timetable that is delivering 34 trains per hour (four more an hour than the previous timetable) during the morning peak on the entire line. That is the equivalent of a train every 100 seconds during peak hours, making the Victoria line the UK's highest frequency railway and comparable with the very best in the world.

Northern line extension

At Battersea and Nine Elms we are building retaining walls for the 25-metre-deep subterranean boxes in which the two new stations on the extended line will take shape. The extension runs from Kennington via Nine Elms to a terminus at Battersea Power Station.



Moving waste by barge as part of Northern line extension work has taken 9,000 lorries off the road

So far, 80,000 tonnes of soil have been removed and transported down river by barge to a land reclamation site. Moving waste by barge has taken 9,000 lorries off the roads and reduced our carbon footprint by 115 tonnes. At two sites in Kennington we are making large, temporary acoustic enclosures that will reduce the impact of noise and dust pollution as we carry out construction.

We have provided the Battersea Power Station Development Company with details of the cost increases resulting from changes to its development above the new station at Battersea. We are also working with our contractor to reduce overall cost where possible.

Lambeth Council has granted planning permission for development above Nine Elms station. The development will include 332 homes, a quarter of which will be affordable, as well as office, retail and leisure space. There will be a public square, pedestrian and cycle connections, cycle parking and disabled car parking. The scheme at Nine Elms will not only

deliver some of the vital infrastructure that London needs, but also generate revenue to help fund the Northern line extension.

Tufnell Park

We have now re-opened Tufnell Park station after completing work to replace its two lifts and improve the ticket hall two weeks early. The new lifts will take customers from the ticket hall to the Northern line more quickly and reliably than the old lifts, which used to fail once a week on average. They are also more energy efficient, contributing to meeting our commitment to reduce the carbon footprint of our Tube stations.

During the closure we improved other parts of the station. This included creating a larger and refurbished ticket hall, installing an extra ticket gate and a new automatic wide gate, and adding an improved customer information area.

Walthamstow

Escalator services at Walthamstow returned to normal two days ahead of schedule after major modernisation work. The first escalator

upgrade began during the three-week station closure in August.

Over 18 million people a year use the station, with only one exit served by two escalators. The improved reliability of the escalators will help to carry the increasing numbers of customers moving through the station.

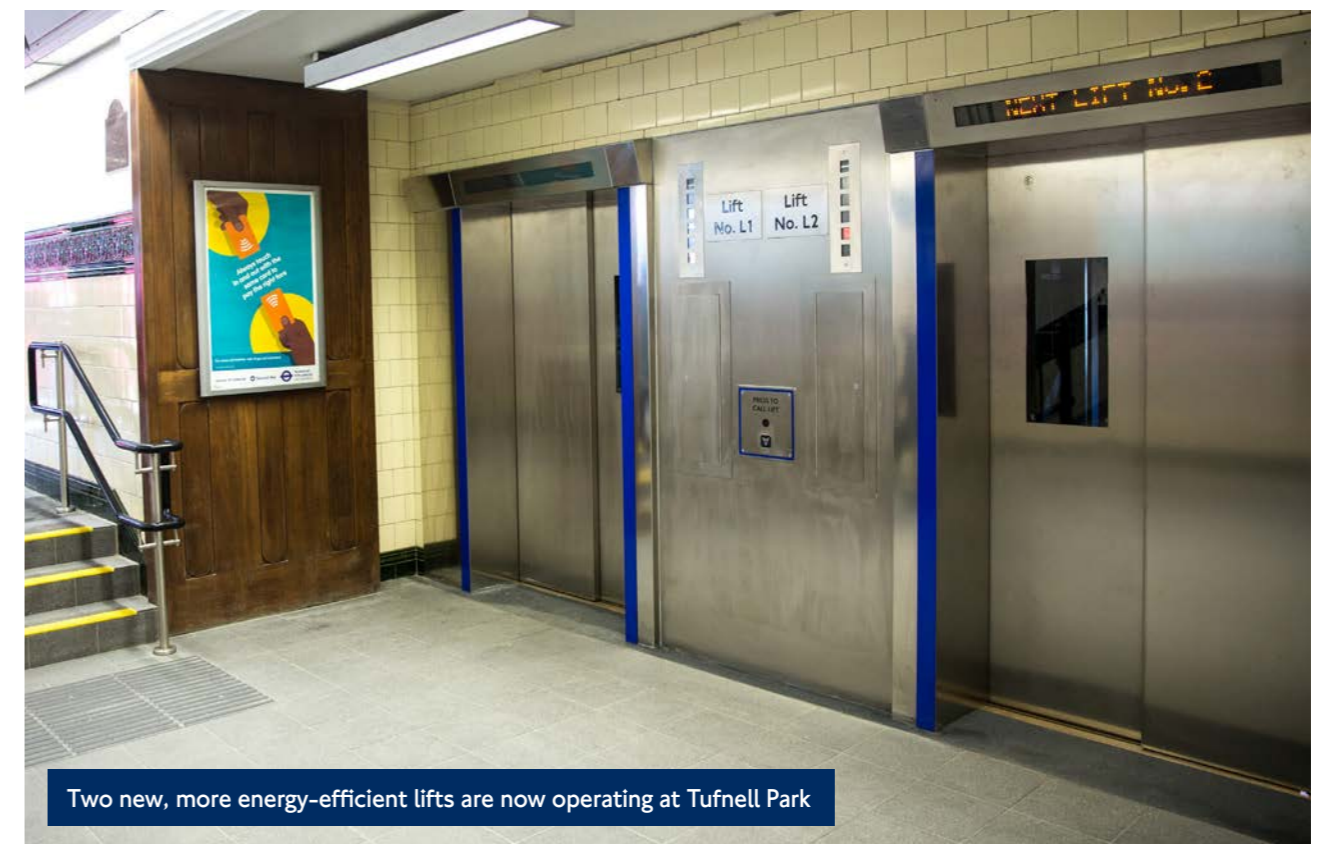
Victoria station

The continuing programme of work at Victoria will more than double the size of the existing station. It will deliver improved interchange between the Victoria, and the District and Circle lines, and provide nine new escalators in addition to the eight new lifts. We are currently preparing to open a new North Ticket Hall and entrance in Cardinal Place at the end of 2016 which will provide

better access from the Victoria line platforms to Victoria Street.

The Victoria station modernisation tunnelling programme reached a milestone with the breakthrough of the stair barrel connecting the newly built lift shaft with the eastbound District and Circle line platforms. It marked the culmination of four years of sprayed concrete lined tunnelling at Victoria. At its shallowest point the tunnel is less than two metres below ground level and the stair barrel itself was driven uphill through areas of water-bearing sands and gravel, which have been challenging from an engineering perspective to tunnel through.

When all construction is complete the tunnel will provide step-free access to the



Two new, more energy-efficient lifts are now operating at Tufnell Park



District and Circle lines from the Victoria line. Step-free access will benefit passengers coming in from Gatwick Airport, as well as from across the country and Europe via the coach station. In the future they will be able to go from street level to platform level by lift.

Bond Street station

The tunnelling works at Bond Street and the demobilisation of tunnelling plant and equipment were completed in May. The project can now move into the next phase of fit out for the tunnels, with the installation of the cable management system, blockwork and pipework, which will help form the customer passageways.

The project also sees the arrival of two escalator frames from manufacturer Otis. These have to be lowered down the construction shaft, winched into position down the escalator incline with specialist plant, and secured.

Tottenham Court Road station

Following the opening of the first of the new station entrances at Tottenham Court Road, the northern, smaller, plaza glass entrance

is now under construction and on schedule to open in October. Charing Cross Road is currently diverted around Centre Point so that work on the new plaza can take place. The road will open again at the end of July. The demolition of the old Oxford Street entrance has now started.

The modernisation is due to be completed this year, with a ticket hall five times larger than its original size, eight new escalators and five new lifts. Around 150,000 people currently use Tottenham Court Road station every day, and numbers are expected to rise to more than 200,000 when the Elizabeth line opens in 2018.

Bank station

The modernisation of Bank station has begun, and by 2021 its capacity will be increased by 40 per cent. Bank and Monument stations are used by more than 57 million passengers a year and demand has risen by over 50 per cent in the past 10 years.

Demolition of the site, bounded by King William Street, Nicholas Lane, Cannon Street



and Abchurch Lane to create one of two worksites, started on 13 June 2016. The project is currently excavating at the Arthur Street site ahead of tunnelling for the new southbound Northern line tunnel in autumn 2016. We have been working closely with Museum of London Archaeology as we start to dig the shaft.

Other projects at Bank station are continuing with the new entrance to the Waterloo & City line, as part of the Bank Bloomberg Project, and the new station operation room at Monument, both due to open in 2017.

TfL Rail

TfL Rail performance

Measured by the public performance measure moving annual average, performance has shown a strong upward trend since we took over the service, and has now hit 95 per cent (at the end of Period 2, 2016/17).

Demand has also increased as a result of lower fares, improved service and reliability, and greater marketing and connectivity into

the wider transport network. Year-on-year passenger demand growth is 18 per cent for the year to date, compared to Abellio run services last year. Passenger journeys were significantly higher than budget in 2015/16 and are above budget this year to the end of Period 2.

Passenger journeys on TfL Rail totalled 40.1million for 2015/16 – 8.3million above target. The customer satisfaction score for the year was 83, three points above the budget.

Custom House and ExCeL

We opened a new public entrance at Custom House DLR station on 10 May. Built as part of the Crossrail project, the entrance is directly opposite the site of the former North London line station and will provide a vital interchange between the DLR and the Elizabeth line when services start in December 2018. It will provide benefits to commuters, local residents and the thousands of regional and international visitors who attend events at nearby ExCeL – London's largest events venue.



New public entrance at Custom House DLR station opened by the Mayor of Newham Robin Wales who was joined by Andrew Wolstenholme, CEO Crossrail, David Pegler, CEO of ExCel London and some of the local community

Large sections were manufactured off site at Crossrail contractor Laing O'Rourke's factory at Worksop near Sheffield and then transported to east London where they were assembled onsite. This ensured safer construction while helping to minimise disruption to local residents, local rail services and events at ExCel London.

From Reading and Heathrow in the west across to Shenfield and Abbey Wood in the east, the Elizabeth line will change the way people travel around London and the South East and add much needed new capacity to London's transport infrastructure. A fleet of new 200-metre long trains will run on the Elizabeth line, with nine walk-through carriages, air conditioning, CCTV and real-time travel information.

For ExCel visitors, the line will provide a direct service to central London, reducing journey times and giving access to the whole of the city quickly and easily. It will provide an 'events super highway' linking the world's busiest airport at Heathrow to ExCel London in 43 minutes.

Acton Main Line

Acton Main Line station will get a new bright, modern building following Ealing Council's approval of designs submitted in March. The transformation, as part of the Crossrail project, will prepare for the arrival of Elizabeth line services. In addition to the tall, naturally lit new building, other major improvements will include new lifts to provide step-free access to both platforms, platform extensions to accommodate the new 200-metre-long trains, and a new platform canopy, lighting, customer information screens, station signage, help points and CCTV.

When the new railway fully opens in 2019, four Elizabeth line services an hour in each direction will serve the station, enabling passengers to travel through central London without having to change trains. Passengers will be able to get to Bond Street in nine minutes and Liverpool Street in 16 minutes, while the journey to Canary Wharf will take 23 minutes.

Crossrail project

Construction progress and railway fit out
Seven years on from construction starting

on Crossrail, the project remains on time and within the funding envelope of £14.8bn. Overall, the project is 75 per cent complete.

Crossrail's central section construction programme remains focused on fitting out the tunnels, shafts and portals. The 42km of tunnels have now been fully handed over from the tunnelling teams to the system-wide team, the final pour of first stage concrete has been completed, more than 30km of track laid and more than 75 per cent of platform edge screen frames installed.

In June, the final part of the new Moorgate ticket hall roof structure was completed. The roof sections will form part of the new public interchange areas at Liverpool Street station and follows the demolition of the old

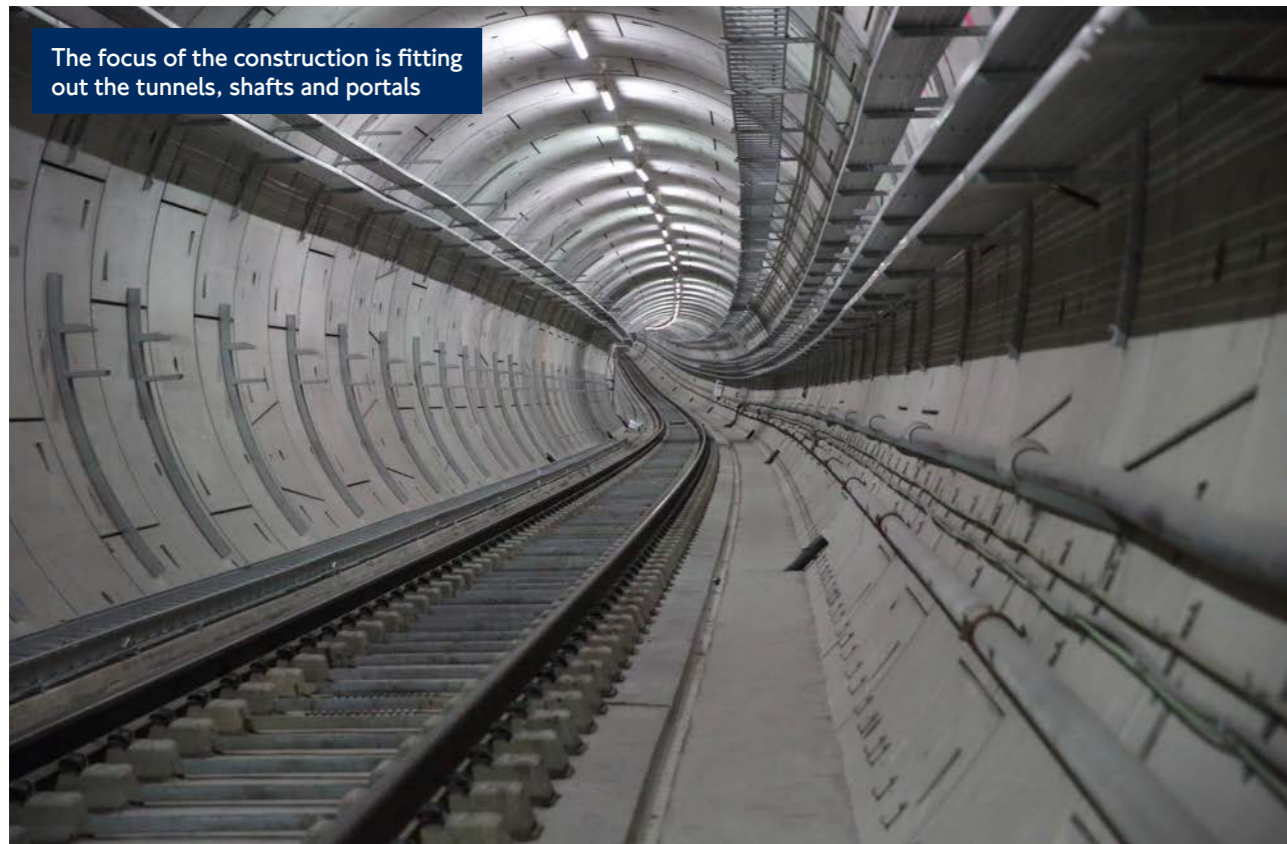
Tube ticket hall, which was directly above the operational railway. The roof completion marks the end of the main heavy civil engineering works at Moorgate ticket hall with the focus of the project now moving to the fit out phase in preparation for handover of the new ticket hall areas to the systemwide project team.

Surface works

The £2.3bn upgrade of the existing rail network for Crossrail, being carried out by Network Rail, is now 65 per cent complete. Network Rail undertook critical works for Crossrail over Easter on the West Anglia and North Kent Railways and over the May Bank holidays work took place at 19 locations both east and west of London. All the work was completed and the railway lines were handed back on time.



Acton Main Line station is to be transformed as part of the Crossrail project



The focus of the construction is fitting out the tunnels, shafts and portals

The remains of a rare, early, steam-powered turntable, built to accommodate Brunel's wide-gauge tracks, and several important buildings thought to be Brunel's engineering workshops, were discovered by Network Rail at Paddington New Yard. Engineers were excavating to prepare the ground for tracks, and with time limited by the need to complete the job so the railway could re-open on time, the remains were photographed and surveyed for future reference and are now preserved carefully beneath the new railway lines.

Major events

Crossrail continues to focus on health and safety and held its sixth Stepping Up Week in April with attention on health and wellbeing, working at height and hot works. In June, Martin Brown, formerly TfL's Head of Health, Safety and the Environment, was appointed as Crossrail's new Health and Safety Director. Steve Hails, Martin's predecessor, has now joined Thames Tideway as Health and Safety Director.

A total of 15 Crossrail sites were named in the Considerate Contractors Scheme as most

considerate sites for 2016. The scheme aims to improve the image of the construction industry by promoting best practice in five areas: care about appearance, respect the community, protect the environment, secure everyone's safety and value the workforce.

There are around 12,000 people working across Crossrail's worksites, more than 570 apprentices have worked on the project and around 4,400 jobs have been provided for local people. In March, Crossrail held its annual apprentice awards, with more than 100 nominations received across the project. Charley Whitlock was awarded the overall Apprentice of the Year prize. She was nominated after being hailed as the driving force behind a partnership with the Prince's Trust and JobCentre Plus that gave a group of people aged between 18 and 25 and not in employment, education or training the opportunity to work on the project.

The 'Platform for Design: Stations, art and public space' exhibition opened at the Royal Institute of British Architects and showcased

Crossrail's approach to design and architecture and unveiled new images of the central and southeast stations, alongside models of the stations and some of the architectural components designed for the stations. A 'before and after' image gallery of the new stations has been released to give the public a glimpse behind the hoardings to see how the new stations are taking shape. The exhibition will also be held at City Hall, New London Architecture and a new exhibit at the London Transport Museum opened at the end of June.

London Rail

London Overground (LO) performance

London Overground (LO) carried 184.4 million people in 2015/16, an increase of 44.6 million on the previous year. More than 66 per cent of this rise was from the new services which began operating from May 2015 on the West Anglia route.

LO reliability, as measured by the public performance measure (PPM) moving annual average, was 94.4 per cent over the full year, just under the target of 94.5 per cent. LO had a strong finish to the year, with reliability in three periods of Quarter 4 exceeding 95 per cent. The West Anglia fleet performed well in Period 13 and, together with better reliability, the lines out of Liverpool Street achieved 96.3 per cent PPM. This marks a vast improvement in reliability compared to the period before we began operating the service. LO customer satisfaction for the year 2015/16 was 84.

New London Overground operator

We have awarded the new London Overground LO operator contract to Arriva Rail London Limited. The £1.5bn contract will cover seven-and-a-half years with an option to extend for up to two more years.



LO carried 184.4 million people in 2015/16, an increase of 44.6 million on the previous year.



LO carried more than 184 million people in 2015/16

Arriva will take over from existing operator LOROL in November 2016, and will support us in delivering further improvements including modernised stations and more frequent services, the first of which will be on the North London line. New trains will be introduced in 2018, transforming journeys on routes out of Liverpool Street and on the Gospel Oak to Barking line.

Arriva is expected to deliver sustained improvements in performance. To support this, incentives have been incorporated into the new contract to encourage the firm to work closely with Network Rail, the train and freight operating companies and freight operating companies to avoid incidents causing an impact to LO services.

Gospel Oak to Barking line closure

On 6 June, Network Rail started electrification works on the LO between Gospel Oak and Barking. Owing to the scale and complex nature of the work, a phased eight-month closure of the line is needed. This consists of a part closure from 4 June to 23 September

2016, with trains running between Gospel Oak and South Tottenham on weekdays with no weekend service, and a full closure of the line from 24 September to February 2017. Replacement buses will be provided along the route. We continue to work with Network Rail to see if the timescales can be reduced. An extensive consultation and communication programme has been implemented.

The scheme, costing more than £130m, will allow the introduction of new, larger four-carriage electric trains to replace the two-carriage diesel trains from 2018, thereby doubling capacity to meet growing demand, also easing congestion and improving air quality. It will also enable a new rail extension to Barking Riverside, which will support up to 11,000 new homes. Network Rail is delivering the project, with joint funding from us and the DfT.

West Anglia

The first anniversary of LO's takeover of the West Anglia services saw punctuality of 97.53 per cent public performance measure in



Passenger journeys on the tram network are expected to rise to around 60 million by 2030

period 2. This is the best result on the route for many years and demonstrates the benefit of our management of such routes. Customer satisfaction achieved an all time high of 84 on these routes.

Thames Tunnel

On Easter Monday, we changed 14 rails and 11 welds in the Thames Tunnel. The team worked in challenging conditions within the 19th century tunnel, which was originally built by Isambard Kingdom Brunel and also known as the Brunel Tunnel. It consists of single bore tunnels that run under the river, and the track had not been changed since 1997. The team completed the work in less than 20 hours.

London Trams performance

London Trams passenger journeys were 27 million in 2015/16 – 4.1 million lower than target and 3.7 million lower than last year. Planned closures in Periods 7 and 8 coupled with declining number of visitors to Croydon shopping centres affected demand in the year. In 2015/16 overall customer satisfaction was 90.

Live Trams information

London Trams customers can now, at the touch of a button, see the status of their service and when it will arrive. The data is available free of charge and forms part of our wider commitment to make the information we hold openly available to help app developers create better products and services for Londoners and visitors.

Electronic status update board (ESUB) screens

London Trams is now showing the status of service on the ESUB screens at all locations where an ESUB is installed. This brings London Trams in line with all other services of TfL and provides real-time travel information to all our customers.

Docklands Light Railway (DLR) performance

Passenger journeys on the DLR in 2015/16 totalled 117 million, an increase of 6.1 per cent – 6.8 million journeys – on the previous year. Passenger numbers were two per cent lower than target, largely due to the industrial action in Period 8.



Passenger journeys on the DLR reached 117 million in 2015/16 – an increase of more than six per cent compared with the previous year

DLR departures performance was 99.2 per cent for the quarter and 98.5 per cent over the full year (excluding industrial action), which was better than target although just down on last year's performance.

Performance has been consistently good throughout the year, dipping below target in four periods, including Period 8 when there was a 48-hour strike.

DLR capacity increase

The DLR has seen an average growth in weekday passenger journeys of 24,000, equating to a 7.5 per cent increase, for the first two periods of 2016 when compared to the same periods in 2015.

A contract to rebuild the DLR Custom House station to include a new mezzanine floor has been awarded to Dyer and Butler. The upgrade is needed to handle the anticipated increase in passenger numbers from the new Crossrail station, the ExCeL exhibition centre and the planned Royal Albert Docks Business Park. Construction on the design and build contract

for the new station will start in January 2017, with plans to open before the end of 2017.

DLR longitudinal seating

DLR has completed converting its B2007 rolling stock to longitudinal seating, providing additional capacity in response to growing passenger demand across the network. The seats are also wider and some of the vestibules have been opened up to allow passengers to move through the carriages. Works to refresh the covering to seats on the B92 rolling stock are progressing well for completion in late summer.

Roads

Roads performance

Full-year journey time reliability in 2015/16 was 87.8 per cent, 0.8 percentage points better than target but 0.5 percentage points worse than last year. Quarter 4 saw strong performance, despite a background of challenging conditions including increased demand for road space and planned disruption from highways improvements as part of our Road Modernisation Plan.

Quarter 4 saw a total of 1,055 hours of serious and severe disruption resulting from unplanned and planned events, spread across 374 separate incidents. Planned disruption totalled 414 hours, with unplanned totalling 641 hours. Planned disruption was up 80 hours compared with the same quarter last year, largely because of the increased intensity of improvement schemes.

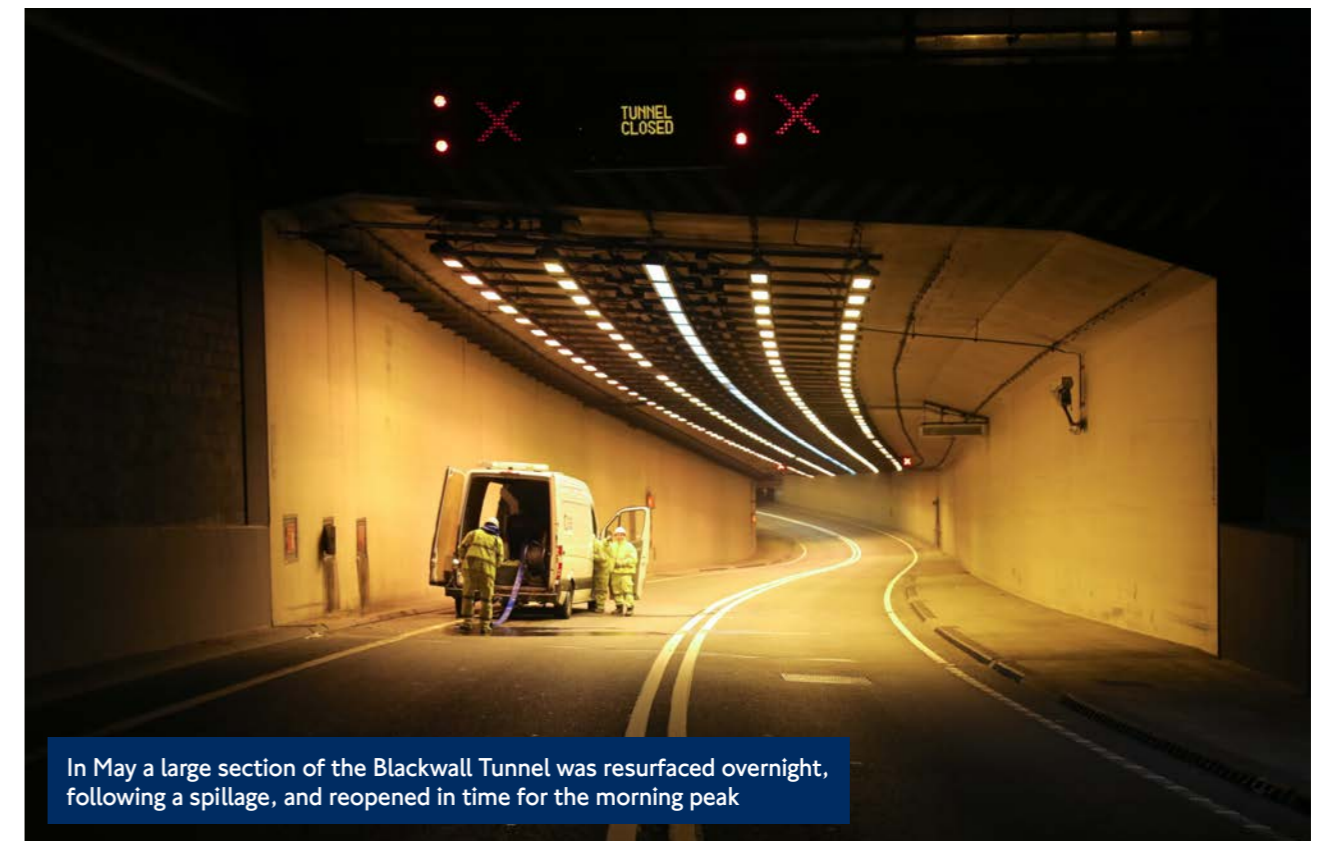
Further measures have recently been introduced to reduce the impact of major roadworks and a wider deterioration in traffic congestion on service reliability.

Major road network incidents

On 24 May, following an investigation into a motorcycle accident in the Blackwall Tunnel,

our tunnel operators discovered that hydraulic fluid had leaked from a mobile crane travelling through the tunnel, causing not only a spillage over a kilometre long, but a major safety hazard for tunnel users. Despite three attempts to clean the spillage with cleaning agents, the fluid had absorbed into the road causing significant damage and rendering it unsafe.

Working with our London Highways Alliance contractor partners, at short notice we were able to mobilise the heavy equipment, bespoke material and specialist skills and labour needed to resurface more than 2,000 m² of carriageway. To illustrate the scale of works, we removed 15 construction lorry loads of spoil to allow 200 tonnes of new asphalt to be laid, normally two to three nights



In May a large section of the Blackwall Tunnel was resurfaced overnight, following a spillage, and reopened in time for the morning peak



work, in such a challenging location where the width of the tunnel makes it impossible for two lorries to pass each other. The tunnel was opened at 03:00 on 25 May, well ahead of the morning peak.

We are currently working to recover the costs of the works from the crane operator.

Utility prosecutions

We have continued to take a tough stance with utilities and other works promoters flouting roadworks legislation and/or permit conditions.

We successfully prosecuted BT for streetworks offences committed at Brixton Road and Clapham Road between January and March 2016. BT pleaded guilty to both offences and was fined a total of £4,500 and ordered to pay our prosecution costs of £3,916.

We also successfully prosecuted BT in relation to four streetworks offences committed on 26 January 2016 in Victoria Street. BT pleaded guilty to all four offences

at Court and was fined a total of £3,250 and ordered to contribute £1,800 toward the costs of prosecution.

We have also successfully prosecuted Vodafone in relation to a streetworks offence committed in Tooting Bec between 7 and 8 January 2016. Vodafone pleaded guilty in advance of the hearing and was fined £1,250 and ordered to pay our prosecution costs of £1,386.50.

Elephant and Castle transformation scheme

The transformation scheme at Elephant and Castle was completed on 28 April. Prior to the works, Elephant and Castle northern roundabout was consistently the worst performing junction of its kind in London. All highway works are now complete and for the first time in 50 years the roundabout has been converted to two-way traffic. There are now segregated cycle lanes to support the growing number of people cycling through this area and pedestrian crossings at surface level, now the

Company	Number of prosecutions
British Telecom	37
Thames Water	13
Infocus	11
Virgin Media	10
Fulcrum	9
UK Power Network	5
National Grid Gas	5
Cable & Wireless	3
Vodafone	3
Abovenet	2
McNicholas (on behalf of Virgin Media)	1
O2	1
Total	100

subways have been removed. The urban realm improvements, which included street furniture, landscaping and a green wall on the Bakerloo line station building were completed at the end of June.

Wandsworth Town Centre

In partnership with the London Borough of Wandsworth, we are proposing a number of changes to the town centre to reduce the dominance of traffic along the high street and return the road network to a two-way operation.

Following the generally favourable outcome of the consultation which closed in January, we published the consultation report in March. We are now progressing with the scheme, largely as outlined in the consultation. Subject to the necessary financial approvals and permissions, work to introduce the scheme to Wandsworth town centre could start in 2018.

Highbury Corner Bridge

We are replacing Highbury Corner Bridge, which was built in 1930 and made of cast-iron

and stainless steel beams. The bridge, jointly owned by us and Network Rail, carries the A1 across the LO railway.

Demolition of three southern abutment vaults took place in March as scheduled. We have now commenced enabling and preparatory works for the LO demolition and replacement works under the station forecourt (Phase 1).

Hammersmith gyratory

Working with the London Borough of Hammersmith & Fulham, we have proposed a number of changes at Hammersmith gyratory, King Street, Beadon Road and Hammersmith Road. The proposals aim to deliver a safer and more direct east-west cycle route through Hammersmith town centre.

We proposed a direct, segregated two-way route for cyclists across the northern side of the gyratory, with separate cycle signals to protect them from traffic. These plans would address a main barrier to cycling in the area by removing the need for cyclists to travel round

the gyratory with fast-moving traffic. We also proposed bus priority measures, such as a new bus lane, to improve journey times for many bus passengers.

The consultation closed on 15 March and we are reviewing the responses. A consultation report will be published towards the end of the summer. Subject to the necessary approvals, construction could start in 2017.

Neasden

The project on the A406 at Neasden involved the replacement of the waterproofing and concrete deck and surfacing on the Iron Bridge and Dog Lane Arches and replacement of vehicle restraint system. All works on the top level (A406) were completed on time and within budget. We are now planning to start the underside works on Dog Lane Arches in late July 2016, which will last around six months. This work will not impact on the A406 carriageway but will be carried out over the Network Rail lines during night-time closures.

Oval

The Oval Triangle Better Junctions scheme was fully opened in May and now provides segregated cycle lanes and priority signals for cyclists at four junctions around the Kennington Oval area on the A3/A23. This includes delivering innovative junction layouts including 'hold the left turn', 'early release' and 'two-stage right turns' which are new to London's road network and follow extensive off-street trials. Although only recently opened, it has been extremely well received by the cycling community. The urban realm

improvements were completed at the end of June and a new sculpture will be installed later in the year following consultation with local stakeholder groups.

Archway

The Archway gyratory removal scheme is progressing well. Archway improvements will create a new public space in the heart of the town centre and introduce a new two-way traffic system, dedicated cycle lanes and improved pedestrian crossings. Construction works started in February 2016, kerblines and paving have been installed on Tollhouse Way, Archway Road (West Side) and St John's Way, works are continuing in Sandridge Street and along the central reservation of Archway Road. Completion is expected by March 2017.

Stockwell

We are delivering major improvements for cyclists at the junction of the A3 and A203 at Stockwell on Cycle Superhighway 7. The gyratory is being replaced with two T-junctions and highway layout changes will include partial closure of South Lambeth Road and a new public space. The first phase, which includes carriageway resurfacing, began on 11 April 2016. The gyratory was removed in May and two new junctions were created as part of the Safer Junctions scheme. The segregated cycling infrastructure has been completed and the remaining works involve the transformation of the Stockwell Memorial Garden. The urban realm works are expected to be complete by late October 2016.

King's Cross

We are working with the London boroughs



Changes at Archway, Stockwell and Kennington Oval are making the roads safer for cyclists

of Camden and Islington to review the road network at King's Cross, to deliver substantial improvements and a better environment for all road users. The works involve creating a simpler road network, introducing new and enhanced crossings, cycle lanes and two-way traffic in order to cut journey times and the volume of traffic on residential streets. This project builds on initial safety improvements for cyclists that completed in May 2015.

An initial public consultation to help shape the development of the designs closed on 20 March. We are reviewing the responses and will publish a consultation report later this year setting out how we propose to proceed.

Lower Clapton Road

On 1 February, in partnership with the London Borough of Hackney, we launched a consultation on proposals to redesign the junction of Lower Clapton Road and Urswick Road. The proposals involve an innovative scheme to replace the traffic and pedestrian signals with an 'informal' roundabout and distinctive informal pedestrian crossings.

The road surface would be raised to help encourage lower vehicle speeds, although we would retain a detectable kerb height between the road and footway to ensure the junction remains accessible.

The consultation closed on 13 March. We are now analysing the responses and will publish a report, later this year, which will set out the basic information on responses to the scheme alongside important issues raised. Subject to the necessary funding and approvals, construction could start in 2017.

Vauxhall gyratory

The consultation report for the replacement of the Vauxhall gyratory system was released on 18 March. More than half of the respondents supported the plans to reintroduce two-way traffic, which would make it less of an intimidating, motor-dominated area, and a range of new pedestrian and cyclist facilities. New and upgraded, segregated cycle lanes with signals and cycle crossings would be installed. The work would improve cycle links to and through the area, connecting to Cycle



Changes at Holloway Railway Bridge will make journeys faster and safer

Superhighway 5. The Vauxhall improvements are being part funded by the London Borough of Lambeth and through our £360m growth fund – designed to create jobs and homes by unlocking development across London.

We will now review the feedback from the consultation and publish a second report later this year, in which responses to common issues will be set out and the next steps confirmed.

Power Road Bridge

We are replacing the Power Road Bridge which carries the A406 (Gunnersbury Avenue) over two Network Rail lines. A service bridge was fabricated off site, with the utility ducts and cables pre-assembled in the factory, prior to being delivered to site in June.

Works to construct the cable troughs in the approaches to the service bridge have begun. Utility works will follow the trough completion and will progress through 2016, with the demolition of the first half of the main bridge planned for December 2016.

Upper Holloway Railway Bridge

We will be replacing the Upper Holloway Railway Bridge which carries the A1 Holloway Road over the railway. The bridge, which dates from 1868, carries two traffic lanes and two bus lanes and is due to be demolished at Christmas 2016. The works will be in line with those planned for LO, and are essential for Network Rail's electrification programme on the Gospel Oak to Barking line. The scheme is due to complete in 2017.

The service bridge, which will carry diverted utilities, has been completed and works to construct the approach cable troughs have started with the demolition of the main bridge planned for December 2016.

Silvertown Tunnel

On 31 May 2016 the Planning Inspectorate wrote to us to confirm that the Development Consent Order (DCO) application for the Silvertown Tunnel project has been formally accepted by the Secretary of State.

Alongside the technical assessments and environmental studies, the DCO application included a consultation report that set out our response to every issue raised during the statutory consultation on the scheme that took place in October and November 2015.

As part of the DCO process, a public examination into the scheme will take place later this year. We will be writing to all those who responded to the statutory consultation and those who have expressed an interest in the scheme to highlight the opportunity for them to register with the Planning Inspectorate, which will consider the application on behalf of the Secretary of State. Registering enables interested parties to submit written comments on the proposals and participate in the public hearings.

Following the examination, the Planning Inspectorate will make a recommendation to the Secretary of State for Transport who will then decide whether or not to approve the DCO. The DCO application must be decided in accordance with the National Policy Statement for National Networks, which sets out Government's policies for nationally significant road and rail projects.

The Mayor has confirmed that in the period before the examination begins he will review the details of the Silvertown scheme. We have therefore decided to defer the procurement process until the autumn to support the review.

Electricity savings through LED signals

As part of our commitment to reducing CO₂ emissions in the Capital, 13,000 signal heads (around 15 per cent of all sites) have been converted to light-emitting diode (LED) technology. Typically, sites converted to LED use less than one third of the energy of the

traditional halogen lamp signal heads. We have thus been able to save £450,000 per annum on energy costs and cut CO₂ emissions by over 16,000kg per annum.

A further 7,000 signal heads will be upgraded this financial year giving an additional saving of £175,000. All signal sites associated with the Road Modernisation Plan have also benefited from this technology. LED signals are also more reliable, providing maintenance benefits.

Ultra Low Emission Zone (ULEZ)

We have been progressing the rapid charging infrastructure project. In addition to identifying potential sites on our road network and estate, we are working with private and public landowners to identify suitable sites to install infrastructure. The rapid charging infrastructure project tender notice for the framework contract was published via our electronic tendering portal and OJEU on 24 March and the bidders' presentation event on 12 April attracted key charge point suppliers and operators from the UK and Europe.

We began publicising the vehicle charging and taxi/private hire vehicle (PHV) licensing aspects of the ULEZ scheme in March with adverts in press and trade publications and radio, and sent targeted information to stakeholders and customers on 20 March 2016. We continue to publicise the scheme following the Mayor's announcement on an air quality policy consultation to ensure that operators are ready for the scheme's introduction. This includes a presentation on ULEZ at the LoCITY annual conference in May.

LoCITY

LoCITY is our initiative that delivers action 12 of the Ultra Low Emission Vehicle (ULEV) Delivery Plan: increase the uptake of ultra-



low emission vehicles in freight and fleet organisations. The first LoCITY annual conference took place at London's Guildhall on 25 May. Delegates learnt the findings from two research projects and enjoyed an ultra low emission vehicle technology showcase. The programme is industry-led and will substantially reduce freight's impact on air quality and more than 600 stakeholders have participated.

London Automotive Forum

The second meeting of the London Automotive Forum took place on 31 March. Attendees included UK and European representatives from seven of the largest automotive manufacturers, and trade bodies including the Society of Motor Manufacturers and Traders, the British Vehicle Rental and Leasing Association and the RAC Foundation. Delegates attended workshops on the deployment of Connected and Autonomous Vehicles (CAVs) in London, specifically what they thought a good and bad scenario would look like for the automotive industry.

We presented an overview of the political and local authority landscape in London, and gave updates on our ULEV programme and our role in the A2/M2 Connected Corridor. There was a clear desire from the manufacturers for us to provide a steer on where CAVs should be deployed and accelerate activity to deliver pilots in partnership with the automotive sector.

Fixing street lights to buildings

Provisions contained in the London Local Authorities and Transport for London Act 2013, enabling us to fix street lights and traffic signs to buildings by serving notice rather than by owner's consent, became effective on 1 April. It will take time for these provisions to become embedded as business as usual, but this opens a fresh opportunity for further decluttering of our streets.

London coach parking map

The 2016 London Coach Parking Map was launched on 14 April. Around 30 representatives



from the coach industry including the Confederation of Passenger Transport, London boroughs and some of the Capital's major tourist attractions were invited to the event.

The map is an invaluable tool for coach drivers as it highlights coach parking provision around London, and includes advice on easy navigation around the Capital. The coach map is complemented by online information at tfl.gov.uk/coachdrivers.

A total of 30,000 copies of the map will be distributed to operators, tourist attractions and organisations involved with coach tourism.

Since November 2015, we have been trialling mixed use bays in three locations across the Capital. This trial involves reclassifying selected loading bays so they are available for coaches to pick up and set down passengers as well as for loading. The trial is an important step forward in implementing actions prioritised in the Tourist Coach Action Plan. We recognise

there are benefits that mixed-use bays can bring by better utilisation of road space and have started to assess the list of all loading bays in the Capital to understand other potential locations for mixed-use bays. We are working to explore new technology to further provide coach spaces in London.

Road safety performance

In Quarter 4, 527 people were killed or seriously injured (KSI) on London's roads. This is the lowest level of KSIs on record for Quarter 4 and represents a 43.9 per cent reduction from the 2005-2009 baseline. The fall in KSIs for quarter 4 is 3.1 percentage points better than the same quarter last year.

Annual casualties in Greater London report

We have published our annual Casualties in Greater London report, which shows that KSIs on London's roads fell by three per cent in 2015 to the lowest number since records began and by 42 per cent on the 2005-09 baseline for which road safety progress in measures.

Overall, KSIs fell from 2,167 to 2,092, with London on course to have reduced such incidents by 50 per cent by 2020. There were 84 fewer serious injuries (2,040 to 1,956) in 2015 compared with 2014, however there was a seven per cent rise in fatalities (from 127 to 136). Despite this, overall fatalities have decreased 36 per cent on the 2005-09 baseline.

Cyclist safety improved significantly in 2015, with fatal and serious injuries involving cyclists falling by 10 per cent, and four fewer cyclist fatalities compared with 2014 (nine fatalities down from 13).

The number of pedestrian KSIs decreased by six per cent, also to the lowest level on record, however there were two more fatalities for this vulnerable user group compared with the previous year (66 up from 64).

Despite overall trends of improved road safety for most road user groups, 2015 saw a concerning increase in the number of motorcyclist fatalities and serious injuries with nine more riders dying in road collisions compared with the previous year (36 up from 27). However the longer-term trend of motorcyclist KSIs is still down, having fallen by 32 per cent since 2005-09.

We are making good progress in reducing death and serious injury on our roads and meeting our targets. However, there remains an enormous amount to do and we are, in particular, deeply concerned about the rise in the number of fatal collisions involving motorcyclists. We are taking a range of

actions to tackle this, including working with the Motorcycle Industry Association, funding for accredited training centres and one-to-one motorcycle commuter training, and improving street design for motorcyclists.

Further improving lorry safety in London

Following the launch of the Safer Lorry Scheme in September 2015, we completed a public consultation on proposals to make further improvements to lorry safety. The proposal was to require the fitment of another window to the lower part of all lorries passenger-side doors to improve driver vision of vulnerable road users. A range of options for restricting or charging lorries without this window were consulted on.

The existing Safer Lorry Scheme mandates a minimum indirect vision standard, to reduce HGV blind spots, through the mandatory fitment of basic 'blind spot' mirrors and sideguards. Development of the Safer Lorry Scheme presents the opportunity to push for lorries with improved direct vision, where the basic design of the cab allows for higher levels of direct vision from the driver's seat. A report on the consultation will be published in due course.

Road Safety Priority Borough Programme – enforcement workshop

On 26 April, we hosted a half-day workshop with a focus on road safety enforcement for the road safety priority boroughs. Attendees included borough officers from the 10 priority boroughs (Barnet, Brent, Croydon, Hackney, Haringey, Lambeth, Lewisham, Tower Hamlets, Wandsworth and Westminster), senior officers



from the Metropolitan Police Service (MPS) Roads and Transport Policing Command (RTPC), borough Safer Transport Team representatives and other key stakeholders.

The aim of the workshop was for TfL and the RTPC to improve visibility of and communication of road safety enforcement activity with borough officers, and ultimately to improve road safety across London. The event was also an opportunity for the boroughs to convene to share information, best practice and discuss possible future collaboration.

Buses

Buses performance

Bus passenger journeys totalled 2,323 million over the full year, 62 million or 2.6 per cent lower than last year, and 122 million or five per cent below budget. Journeys in Quarter 4 were particularly low, with 57 million fewer journeys than the same quarter last year, a decline of eight per cent.

The primary cause is the slight deterioration in the reliability of the bus network. This is

owing to increased traffic levels driven by London's strong economic growth (including extensive building and construction projects across London), a rapidly rising population, our Road Modernisation Plan and town centre improvements.

Over the full year bus excess wait time was 1.2 minutes, 0.1 minutes worse than both target and last year. This was due to the continued high levels of congestion caused by London's population growth and our Road Modernisation Plan, the latter including major highway schemes, Cycle Superhighways and urban improvement schemes.

Hybrid buses

We now have 1,800 hybrid diesel-electric buses in the fleet following the conversion of more routes to low emission vehicles. The percentage of hybrids will rise from 20 per cent to around a third (more than 3,000 vehicles) by 2020 to comply with the Ultra-Low Emission Zone (ULEZ) requirements for cleaner double-deck vehicles.



The bus fleet is significantly cleaner following the conclusion of the Oxides of Nitrogen Abatement Programme in February. Around 2,200 Euro III buses are now fitted with selective catalytic reduction equipment; more than the original target of 1,800 by the end of 2015. Euro III buses not included in the retrofit programme have been replaced with new ultra-low emission Euro VI buses.

These two measures have delivered a 20 per cent fall of nitrogen oxides (NOx) a year from the bus fleet compared with 2012 levels. The NOx profile will continue to fall as further Euro VI buses are introduced to comply with ULEZ.

Bus driver training

We have launched our new two-day bus driver training course for the Capital's 24,500 drivers. Around 100 drivers a day are attending and the training includes interactive customer experience and a new safety module.

Bus safety collisions reduction programme

On 18 March we launched a new telephone helpline to support people who have been

affected by fatal or serious injuries on London's transport network.

The helpline, operated by specially trained members of our Customer Service team, is the brainchild of Sarah Hope. Sarah was severely injured nine years ago by a bus in South London. Sarah's mother Elizabeth was killed and the incident left Sarah and her daughter Pollyanna with life changing injuries.

The Sarah Hope Line will provide a range of practical and emotional help to those affected, including helping with travel, accommodation and other needs following an incident, and referral to a number of specialised support services including counselling. Since January 2016, the Sarah Hope Line has received 12 contacts.

This is one of six network-wide initiatives that form part of the Bus Safety Collisions Reduction Programme. The other strands focus on bus design, driver training, contract incentives, reporting and data transparency. New bus technology, such as intelligent speed

assistance (ISA), will be considered for all new buses as part of a Bus Safety Standard from 2018. As an interim speed reduction measure, we are looking at how iBus data can help with speed monitoring and working with bus operators to provide targeted enforcement on priority bus routes.

Bus intelligent speed assistance (ISA) trials

We have completed trials of ISA technology fitted to buses, which demonstrated that the technology can be used to limit speeds on the bus network. The trials, the first in the UK, form part of our commitment to halve the number of people killed or seriously injured on London's roads by 2020. The ISA technology, which prevents vehicles from accelerating above the posted speed limit, was tested on two bus routes that included a variety of road environments and speed limits. The trials were particularly effective when travelling through 20mph zones, which are being widely introduced across the Capital and now cover almost a quarter of London's roads.

Priority interventions to improve bus flows

In 2015/16, our Bus Priority Programme delivered 77 schemes ahead of the annual target of 72 to improve bus flows. Borough delivery exceeded expectations, with Lambeth, Lewisham, Southwark, Havering, Harrow and Hackney delivering further schemes towards the end of the financial year 2015/16.

Our largest scheme to date, at the junction of the North Circular Road and Brentfield Road in Neasden, on the TLRN, was completed on 18 June. The scheme allows buses on route

205 to use a new bus gate, which saves over two minutes per journey. In addition, the scheme provides reliability improvements for general traffic on the North Circular Road and creates a new public space.

In this financial year, we expect to deliver 138 schemes on the TLRN and via the boroughs on borough roads, all of which will contribute to improving bus journey times. We will also continue to develop further schemes for delivery in future years.

Garage open day

We have introduced a new programme of bus garage open days to promote wider initiatives to enhance the customer experience on the network. More than 1,400 people attended Shepherd's Bush Bus Garage on 21 May and almost £1,700 was raised for the Shooting Stars Children's Hospice. Further garage open days were held at Holloway on 9 July, and planned for Bromley on 13 August, Twickenham on 17 September and Stockwell on 15 October 2016.

To sustain bus customer satisfaction scores and improve the customer experience, we are embarking on a number of new initiatives including bus driver training (see page 32), a customer information campaign to show bus drivers do far more than operate a bus and new public address announcements recorded by drivers to make passenger journeys easier.

The London Red Arrow bus network

This year marks 50 years since the introduction of the 'Red Arrow' bus service. The bus service used single-deck buses operated by a driver, allowing more room for standing passengers,



giving greater capacity than other buses at the time and included the introduction of a flat fare for the journey. These features are now universal across the whole bus network. To stand out, the buses were branded as 'Red Arrow'. The initial routes were a success and more routes were introduced. Route 507 and Route 521 can trace their origins back to the network introduced in the 1960s. To mark the anniversary, Go-Ahead London painted a bus in a similar colour scheme to the original buses.

Cycling Cycling performance

The full-year level of cycling in central London during 2015 is an average increase of 3.1 per cent from 2014, which is above the full-year target of a rise of three per cent – the annual growth in cycling required within central London to meet a target of 1.5 million cycle journeys per day by 2026.

Encouraging more walking and cycling Santander Cycles Business Accounts

The Mayor launched the new Santander Cycles business accounts on 20 May, which offer a 10 per cent discount to businesses signing up before July. This incentive scheme aims to encourage more London businesses to get their staff cycling.

Santander Cycles at Mr Porter London Nocturne

The third annual Santander Cycles race was held on 4 June as part of the Nocturne evening cycling festival.

This year's event took place on a new exciting 1.5km circuit – 400 metres longer than previous years – in the heart of the City, with the finishing line on Cheapside close to St Paul's Cathedral.

Cycle Superhighways

The first phase of the Cycle Superhighway programme is now complete and the following sections are open:



a Cycle Superhighway 1 (Tottenham to Liverpool Street Station)

b Cycle Superhighway 2 (Stratford to Aldgate), a full upgrade to the original route

c East-West Phase 1 (Cycle Superhighway 3) – Tower Hill to Parliament Square

d Cycle Superhighway 5 Inner (Oval to Pimlico)

e North-South (Cycle Superhighway 6) Phase 1 – Elephant & Castle to Stonecutter Street

f Upgrades to Cycle Superhighways 3, 7 and 8

This programme has greatly boosted safety for cyclists across the Capital. The majority of new or upgraded routes feature segregated and semi-segregated cycle facilities, and include a range of innovative measures such as bus stop by-passes and junction layouts separating cyclists from turning vehicles.

Construction works are progressing well on the final section of the East-West route between Parliament Square and Lancaster Gate with construction expected to be complete by the end of 2016.

Construction of the Cycle Superhighway Route 1 project was finished two weeks ahead of schedule at Easter 2016. This included the commissioning of Apex Junction, which was completed at the start of March 2016. Work was completed at the end of April 2016 and the full route is now open.

Construction of the Cycle Superhighway Route 2 Upgrade project was completed on schedule in mid-April. This included the commissioning of key junctions with new cycle facilities at Commercial Street, Commercial Road, Globe Road, Hartford Street and Fairfield Road. The carriageway resurfacing of the A11 from Aldgate to Bow Roundabout was done in three phases and was completed at the start of April. Final works will be finished in mid-July, but the route is open.



The success of these projects has enhanced safety for cyclists

The North-South Cycle Superhighway (CS6) construction works were completed at the end of April. Works in the City of London are complete at Blackfriars Station Junction, New Bridge Street, and on Farringdon Street. Collaborative working has taken place with Thames Tideway around Blackfriars Junction/Bridge. The westbound slip-road from Blackfriars to Victoria Embankment which had been closed permanently to vehicles re-opened for cyclists in early May.

The East-West Cycle Superhighway (CS3) construction is substantially complete. The section from Tower Hill to Parliament Square was finished in early May. Resurfacing works were completed in the Victoria Embankment/Bridge Street area and along Upper Thames Street. Works are progressing in Hyde Park on West Carriage Drive and Constitution Hill. Delays in obtaining Royal Parks' licences and local authority approval have caused a delay in starting construction within the parks and at Storeys Gate. Works in St James's Park started in June 2016 after the ceremonial events.

Construction of the Cycle Superhighway Route 8 Upgrade project at Chelsea Bridge was completed on 28 June.

On 5 May, the previous Mayor issued a direction to TfL in relation to certain aspects of the design of the cycle track at Apex Junction. This includes design changes relating to the delineation of the cycle track through the shared space for pedestrians and cyclists across the junction and removal of the shared space designation on the surface of the cycle track. I replied on 23 May confirming we would take steps to implement the direction. In relation to measures not within our control, because they form part of the road network for which the London Borough of Hackney is the highway authority, I confirmed that we will continue to work with them to ensure that an appropriate solution is found.

Quietways

These radial and orbital cycle routes across London will link key destinations following direct back-street routes, and may include

parks or waterways. Quietways are designed to appeal to both new and more experienced cyclists; providing quieter routes away from main roads for cyclists who wish to travel at a more leisurely pace.

Phase 1 Quietway routes are detailed below:

- a Quietways 1 Waterloo to Greenwich
- b Quietways 2 Bloomsbury to Walthamstow
- c Quietways 3 Regents Park to Gladstone Park
- d Quietways 4 Clapham Common to Wimbledon
- e Quietways 5 Waterloo to Croydon
- f Quietways 6 Aldgate to Hainault
- g Quietways 7 Elephant & Castle to Crystal Palace

Quietway 1 was launched on 14 June. This is London's first Quietway route and is a continuous, sign-posted route with purple branded signage. Quietway 1 connects with other cycling routes in the area including North-South Cycle Superhighway (CS6) at Webber Street and Cycle Superhighway (CS7) at Great Suffolk Street. It passes many areas of local interest, opening them up to more pedestrians and cyclists, including Patterson Park and Bermondsey Spa in Southwark, through Deptford and into Greenwich. The route is performing well and has already seen increased ridership.

Quietway 2 will be substantially complete by the end of 2016. The remaining phase 1 Quietway routes and Quietways 3 to 7, will be substantially complete by spring 2017.

Central London Grid

The Central London Grid is a network of Quietway routes in central London being delivered by the boroughs and designed to provide safe and attractive cycle routes.

The grid is progressing well with 50 of the 134 schemes now either complete or under construction – representing 30 per cent of the 85km core network. A further 48 per cent has been out to consultation and it is estimated that over 60km of the core network will be complete by December 2016. Wayfinding measures, including signs and road markings, will start appearing on routes this summer.

Mini-Hollands

The Mini-Holland programme will give three outer London boroughs – Enfield, Kingston and Waltham Forest – the funding to transform local cycling facilities and encourage people to take to two wheels.

The Waltham Forest team is making good progress, and has completed schemes at Pembroke Village, Ruckholt Road, Lea Bridge Road, and has also opened three cycle parking hubs. We have been considering designs for the 4km fully segregated cycle route along Lea Bridge Road and remodelling of Whipps Cross roundabout into a signalised junction and building is expected to start later this year.

In the London Borough of Enfield the construction of the A105/Green Lanes scheme is due to start this summer. Responses to the A105 consultation showed a majority in favour of the scheme, but responses to other Mini-Holland proposals in Enfield have been more mixed. The Council remain committed to delivering the transformation envisaged. Construction is continuing on Enfield's main Quietway route (7.5km) from Enfield Town to



The Freight Forum brought together 50 businesses and organisations from across the industry to update them on our work

Meridian Water, with the first section due to complete in July 2016.

The Kingston Mini-Holland programme includes Kingston Station Plaza and seven cycle corridor schemes, providing 15km of new cycle routes. Portsmouth Road, one of the corridor schemes, is under construction and is due to complete by October. Proposals for Wheatfield Way, Kingston to Surbiton, Kingston Station Plaza, the Kingston Bridge connectivity scheme and the Fountain roundabout are now out to consultation.

Managing the impact on bus journey times in these busy outer London town centres, while delivering meaningful change in conditions for cycling and walking, remains a big challenge.

Spring into Summer walking weekend

Close to 4,000 Londoners attended our free led-walks weekend – ‘Spring into Summer’, on Saturday 21 and Sunday 22 May. Walks ranged from a leisurely two-mile stroll to a more energetic 16-mile hike. Participants

could choose one of the 45 free guided walks across the Capital, allowing them to enjoy spectacular views of London in bloom and explore the city’s hidden gems, famous landmarks, parks and canals. We included a new design-themed walk following the Bakerloo line above ground – featuring Oscar Wilde, Arthur Conan Doyle and the Marlboro Man. This was a special walk to celebrate our Transported by Design programme, which is running until December 2016.

Sustainable freight Freight Forum

I hosted the twelfth Freight Forum on 18 March 2016, which was chaired by Karen Dee from the Freight Transport Association. It brought together 50 businesses and organisations from across the industry, and London’s boroughs, to update them on our work and provided the opportunity to discuss issues affecting them.

The forum’s focus was increasing the number of retimed deliveries with Natalie Chapman,

Chair of the Retiming Consortium, explaining the group’s successes. Other topics included the ways the industry can encourage customers to retime their deliveries, and a discussion on the future streets of London.

Construction Logistics Cycle Safety (CLOCS) progress event

I also hosted the fifth CLOCS conference and exhibition at London’s ExCeL on 23 March 2016, outlining our continued commitment to the programme.

The event was attended by almost 700 delegates and featured 29 safer and cleaner vehicles representing all of the principal vehicle manufacturers. The vehicles included the launch of new low-profile trucks from Volvo, Scania and Dennis Eagle. Vehicles were also exhibited from ‘CLOCS champion’ companies which have bought, and are now operating CLOCS vehicles in the Capital.

Build UK, an organisation representing more than 11,500 construction industry suppliers, commended the CLOCS progress and launched its own ‘Don’t Break the Chain Campaign’ in support of CLOCS across their national membership. Awareness of initiative across the industry has grown from 15 per cent to 42 per cent in the South East and from nine to 38 per cent across the rest of the UK in just two years. This reinforces CLOCS as a ground-breaking behaviour change programme that has catalysed millions of pounds of private sector road safety investment with a relatively small level of TfL funding.

London Freight Enforcement Partnership (LFEP)

LFEP agencies continue to focus on commercial vehicles safety. Since the partnership was launched in October 2015, more than 11,000 vehicles have been checked, of which only 347 were found to be non-compliant, equivalent to three per cent of all vehicles stopped. Due to targeted enforcement and education activity, compliance has continued to improve and the latest figures for May 2016 show a non-compliance rate of just over one per cent. Drivers found to be using non-compliant vehicles are issued with a Fixed Penalty Notice or summoned for prosecution at Magistrates Court. All operators found to be non-compliant are also referred to the office of the Traffic Commissioner who may choose to take further action.

Fleet Operator Recognition Scheme (FORS) annual report

The FORS Annual Report was published in March 2016 and marks the anniversary of the award winning fleet quality scheme’s first year as a national concession. In 2015, AECOM formed the FORS Community Partnership to successfully win the tender to run FORS and evolve it into a national paid-for scheme.

The Annual Report details the development, growth and activities of FORS over the past 12 months with highlights being a 32 per cent increase in accredited operators (from 2,925 to 3,800) and the setting up of the FORS Governance and Standards Advisory Group (GSAG). The GSAG is designed to

advise on the continuing development of the FORS Standard and includes representatives from organisations such as Driver & Vehicles Standards Agency, Transport for Greater Manchester, Highways England, HS2, DHL, Freight Transport Association and the Road Haulage Association. The FORS Concession contract has reduced our financial commitment to FORS by around £1m in its first year and the scheme will be run at no cost to us by year three.

Lorry driver safety training

During the past year, we reached a major milestone with more than 7,000 HGV drivers attending our Safe Urban Driving course. Participants learn how to share the road safely with vulnerable road users, such as cyclists and pedestrians.

Created in 2011, Safe Urban Driving is the first accredited training course in the UK to include practical adult cycle training. This success has been down to the creation of a training product that has stimulated the industry. More than 40 per cent of the drivers attending in the past year have been trained at no cost to us, and since its launch over 26,000 drivers have been trained.

Construction Consolidation Centre directory

We have published the first ever directory of construction consolidation centres for the Capital. The Directory of London Construction Consolidation Centres provides essential information including locations, operating hours, services provided and contact details on

the network of nine centres. The aim is to map and promote the centres and their capabilities to developers so they can use them as part of their construction supply chains.

Construction consolidation centres allow more efficient deliveries by organising materials and directing fewer vehicles to specific construction sites, reducing construction costs and improving the roads. Within two weeks of the directory being published, two centres previously unknown to us made contact and will be included in the next edition.

Taxi and Private Hire TPH engagement update, private hire regulations review

On 17 March the TfL Board approved a number of measures that will modernise and improve the private hire industry. The measures, which follow an extensive consultation process that attracted more than 20,000 responses, will make the private hire industry safer and more convenient for customers. The changes include:

- a Even more robust 'hire and reward' insurance requirements that will mean a policy has to be in place for the duration of the vehicle licence, including when the vehicle is presented for inspection by us prior to being issued with a licence
- b An English language requirement for all drivers
- c An agreed or accurate estimate of the fare for customers in advance of their journey



d The provision of driver and vehicle details to customers before the start of each journey, including a photo of the driver

e A requirement for private hire operators to ensure that customers can speak to someone at the operating centre in the event of a problem with their journey or if they want to make a complaint about their journey

f Enhanced record keeping requirements for operators and a requirement to provide driver and vehicle information to TfL regularly to make enforcement easier and more effective

The new regulations which implement the Board's decision came into effect for new licensees on 27 June. More time has been allowed for existing licence holders to prepare for some of the more significant changes required.

The changes to the regulations have been published and brought to the attention of all

PHV operators and drivers. We will monitor implementation of the changes and are now considering further measures, including how we engage with the trades, to deliver the Mayor's manifesto pledge to stabilise and promote the Taxi trade and ensure that driver safety standards are rigorously enforced across the taxi and private hire industries.

Pedicabs

The DfT has committed to bring forward legislation that will allow us to regulate pedicabs. It is proposed that we will be given broad powers to licence pedicab vehicles and their drivers, together with associated powers of enforcement. This would be separate from the existing taxi and private hire vehicle (PHV) regulatory regime. We are working with the DfT on the Bill so that we are ready to proceed when a suitable opportunity arises to take this forward.

The DfT's proposals are designed to deliver safer roads and are being brought forward to ensure that customers – including visitors to



Enforcement as part of Operation Neon continues to deter illegal minicab activity

the Capital – are not taken advantage of by drivers charging over-the-top fares.

Taxi fares and credit cards

The credit card surcharge for taxi passengers was removed, from 2 April, as a first step towards mandating payment cards and contactless payment in taxis from 3 October. Previously the surcharge was £1 or up to 10 per cent of the fare, whichever was greater.

Other changes came into effect, including an increase of 1.6 per cent on the average taxi fare to cover rising drivers' costs such as fuel, insurance and maintenance, and a change in the night time tariff giving passengers an extra hour at a cheaper rate. Also, the minimum taxi fare (flagfall) was increased from £2.40 to £2.60 per trip.

Operation Neon

Working in partnership with the MPS, we continue to run the successful Operation Neon, a high-visibility, multi-agency

enforcement operation to deter and disrupt illegal minicab activity in a number of central London hotspots.

The operation involves police officers and Traffic Police Community Support Officers from the MPS RTPC, our own Taxi and Private Hire Compliance Officers, Revenue Protection Inspectors (RPIs) and Road Network Compliance officers, as well as Local Authority parking attendants. The operation, which runs every Friday and Saturday, continues to have a high level of support from the Taxi and Private Hire trades.

The results for the last 113 operations (8 May 2015 – 4 June 2016) include:

- a 8,886 PHV drivers advised and moved on to keep roads clear for taxis and booked PHVs
- b 436 PHV drivers reported for not having a badge and stopped from working for the rest of the evening

- c 4,875 PHV drivers reported for not wearing a badge
- d 65 PHV drivers reported for plying for hire offences
- e 1,178 PHV drivers reported for parking on taxi ranks
- f 2,406 parking tickets issued

Operation Atlas

We are working closely with the MPS to target fare evasion on our bus network. Operation Atlas, which involves more than 200 of our own RPIs and officers from the MPS RTPC, targets fare evasion, helps improve driver confidence and increases customer awareness of the various options for payment when travelling on buses.

Fare evasion is generally low, so Operation Atlas aims to remind people about the importance of tapping their card when they get on the bus, and to reinforce the fact that all our income is reinvested in the network.

The first in a series of these operations took place across London in April and resulted in more than 15,500 passenger checks and six arrests.

Crime rates and volumes

Both the rates and volumes of crime are up on our services. Since 2010/11, the crime rate fell by 29 per cent on buses to 7.5 crimes per million passenger journeys, and by 36 per cent

on the LU and DLR network to 7.3 crimes per million passenger journeys. However, despite this long-term reduction, there has been a rise in the volume of recorded crime on all networks in the full year 2015/16 compared with 2014/15. This increase is largely owing to the rise in the number of reported sexual and violence against the person offences – the latter primarily because of new crime recording practices introduced in summer 2014.

For a full analysis of crime across all our services please refer to the Quarter 4 Operational and Financial Performance Report.

3 Our customers

Amazon data hack day

We teamed up with Amazon to host a data hack day to look at our Urban Traffic Control data. This highlighted the huge external interest in our data with representatives from Highways England, Siemens, Ordnance Survey, Vizicities and Dryson attending along with our own employees. The event is part of our drive to work with the developer community to create roads products from our open data that can benefit customers and users, as well as giving an opportunity to experiment with, and learn from, the data we collate. An indication of the power of our open data is a tool, dubbed the 'London Panopticon', in which viewers can watch videos of traffic from TfL cameras on the Capital's busy red routes.

Better travel information via Twitter

In June, we launched a world-first pilot with Twitter whereby customers can opt-in to be automatically alerted of severe delays on certain LU and TfL Rail services as soon as they occur. This in addition to the four million customers who already follow our Twitter feeds. This is the first time that Twitter has partnered with a transport authority to provide live travel information in this way and more than 2,000 customers signed up for the pilot in the first week.

The pilot originally covered four existing TfL Twitter feeds (LO, TfL Rail, Central line and District line) but following its initial success it has now been expanded to cover all 14 line-specific LU and rail Twitter feeds. We will continue to assess feedback from the pilot over the summer and, dependent on customer feedback, could extend the service to alert

drivers of disruption on key road corridors in the future.

Traffic Twitter – now over 700,000 followers

The @TfLTraffic News Twitter feed (which launched in April 2012), now has more than 700,000 followers. Growth in sign-ups has been exceptional, with over 130,000 new followers gained in just four months, compared with growth of just 87,000 new followers for the same period last year.

Travel Demand Management

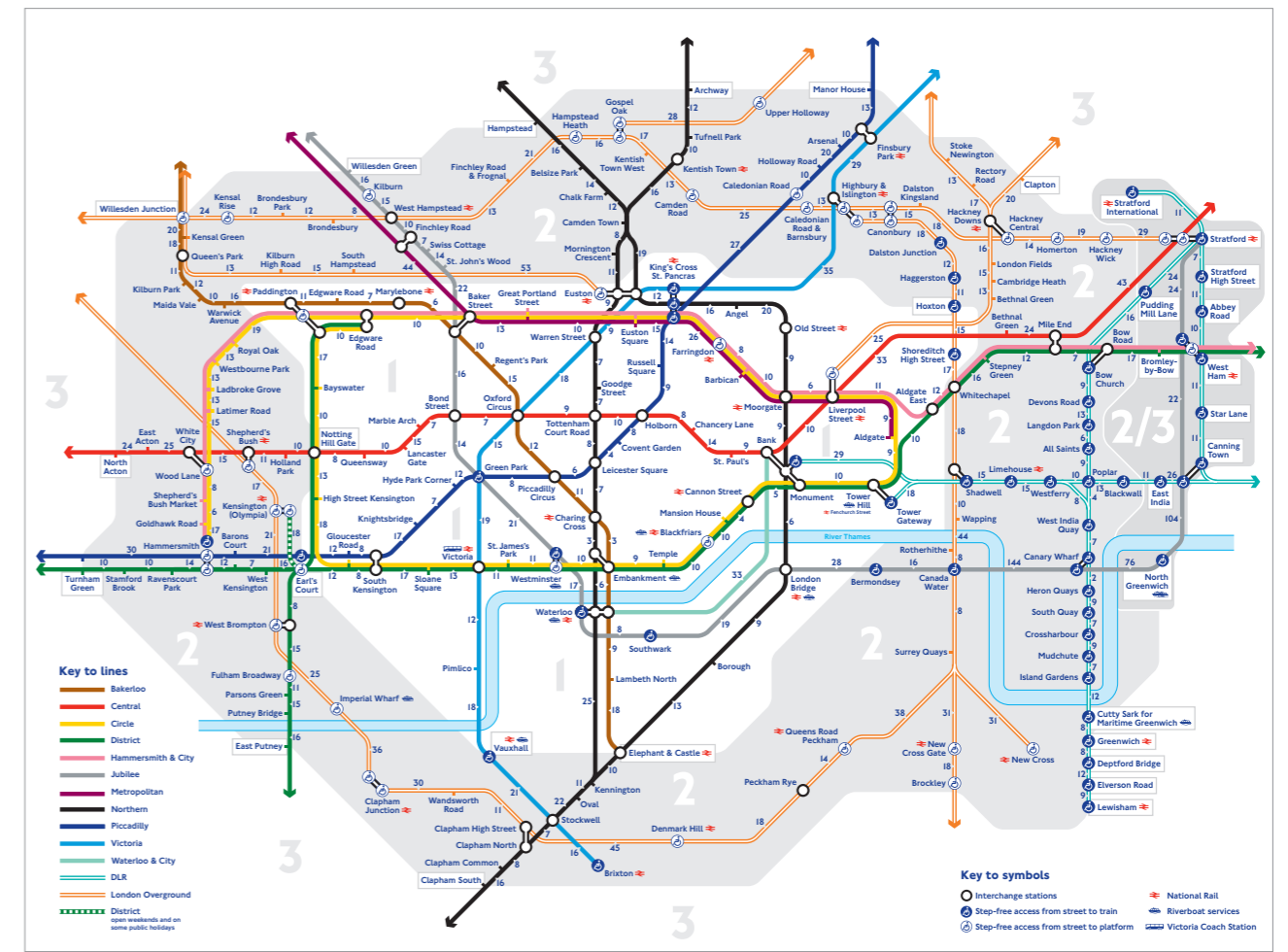
As London's population and demand for our services continues to grow rapidly, alongside our investment programme our Travel Demand Management programme is a key element of our plan for getting the most capacity out of our public transport and road networks. This strategic plan is already producing results.

Customer trials

We have conducted trials of new information for customers at 23 Tube stations that enables them to avoid crowding where possible and spread demand away from the busiest times and places. Feedback has been positive and early indications show demand reducing by up to five per cent in the busiest times of the morning peak.

Crowding information on Journey Planner

In April we integrated information about the busiest time at every LU station into the Journey Planner tool on our website. This information was accessed over 200,000 times throughout May 2016 (roughly six per cent of



Our Tube walking time map is encouraging more people to walk instead of taking the Tube

those using Journey Planner). We expect to see these numbers grow as the wider programme raises awareness of this information.

Walking Map

Research published in May indicated that a quarter of Londoners are aware of the walking time map we released earlier this year and four in 10 of those aware had changed their perception of the distances between stations. Over a third (36 per cent) say that the map has encouraged them to walk instead of taking the Tube.

Visitors

In partnership with the visitor industry, in April we launched our animated 'top tips' for the best experience while travelling around the Capital, which included information on the

busiest times to travel. This has now been viewed more than 16,000 times, helping those who are new to London to improve their travel experience.

Roads customer emails

We trialled the release of new customer information for road users; emailing information on typical journey times through the A312 Parkway's junction with the M3 in west London to 6,000 registered drivers living in the vicinity. Feedback was very positive with 60 per cent of those responding indicating they found the information either fairly or very useful. We are developing further trials to understand how enhancements in operational data can help improve customer information provision for London's road users.

The programme will also continue to support our customers and users to avoid crowding around major events and closures, with comprehensive travel advice.

Launch of Android pay

More customers are adopting contactless bank payment cards (CPCs) as their preferred payment method, with the proportion of 'pay as you go' journeys made using CPCs reaching 30.5 per cent for Tube and rail journeys, and 26.6 per cent for bus journeys. Since launching contactless in September 2014 more than 440 million journeys have been made using over 12 million unique cards.

Payments by mobile devices also continue to grow following the launch of Android Pay in May, Barclays Contactless Mobile in June, and a number of high-profile marketing campaigns such as the MasterCard – Apple Pay Fare Free Monday promotion. Overall we have seen 10.4 million journeys made using over 400,000 unique devices.

Mobile device payment plays a useful role in expanding the availability of contactless payments to an audience that may not possess a contactless card and we are starting to see new features to enhance the customer experience. Examples include an in-app view of stations and bus routes used, and notifications to customers who may have forgotten to touch out at the end of their rail journey. Overall, mobile contactless payments now represent around 4.5 per cent of the total journeys made using our contactless payment system.

Pay as you go for Swanley

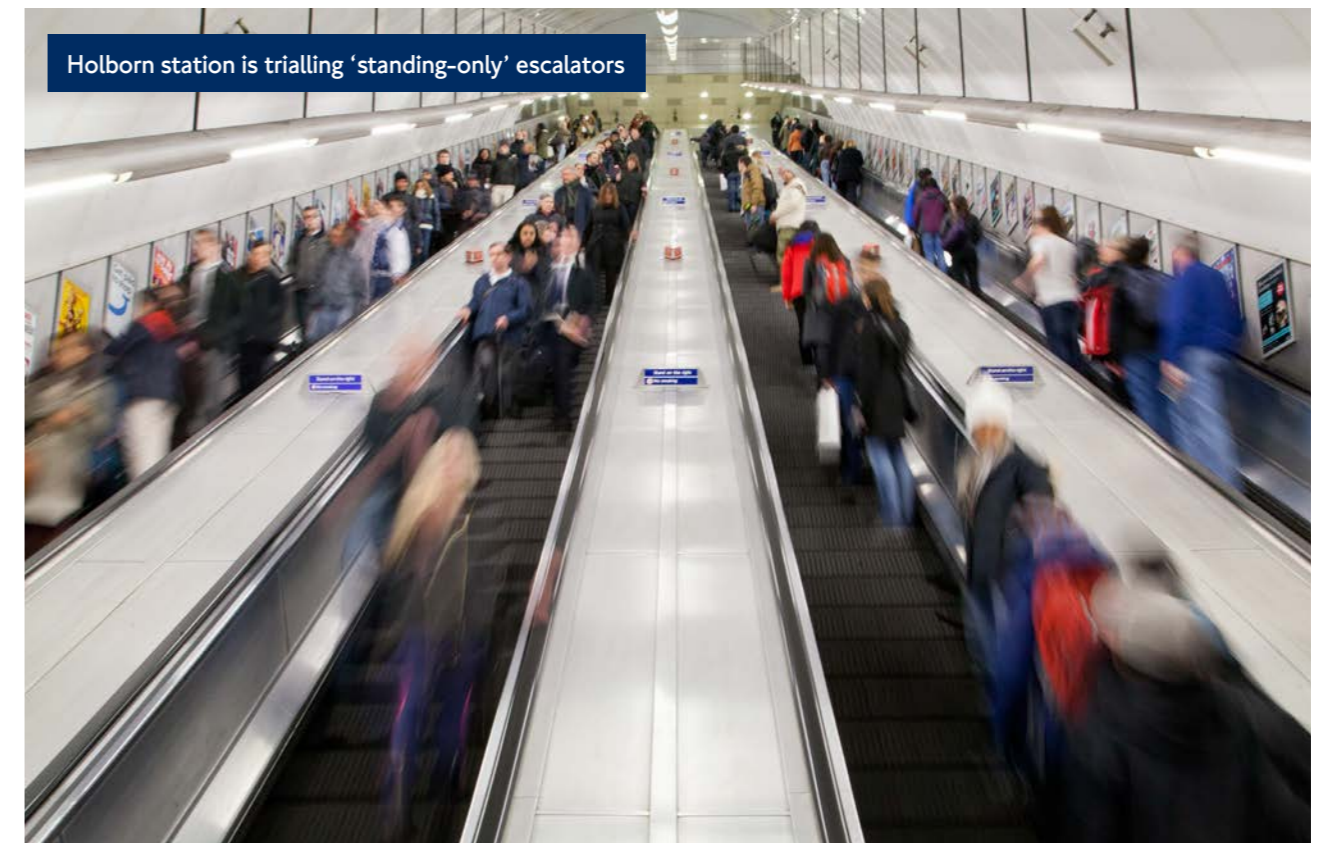
Travelling has become cheaper and more convenient for rail passengers in north Kent with the extension of pay as you go contactless and Oyster to Southeastern and Thameslink services to and from Swanley.

Pay as you go fares are cheaper than paper tickets and the same for both contactless payment card and Oyster. Swanley has moved into the London zones for the first time, so customers can now use a Zone 1-8 Travelcard to complete their journey. Extending pay as you go to Swanley means that concessions, such as free travel for children under 10 and veterans, will also be available on services into London. Contactless payment also offers weekly (Monday to Sunday) capping for the zones travelled in. This automatically limits the cost of travel to the price of a weekly Travelcard.

The extension of pay as you go to Swanley is part of TfL's, Southeastern's and Govia Thameslink Railway's wider work to make life easier for customers. Last year, it was extended to Dartford, with around 16,000 journeys a week now made with either contactless payment cards or Oyster from this station. We are working to expand the benefits of pay as you go further to all London airports as well as other key locations in the commuter belt.

Contactless on the river

On 24 May contactless payment went operational on the River Bus network, which covers around 28km of the Thames between Putney and Woolwich Arsenal. The adult fares



for journeys using contactless payment and Oyster cards are the same. Travel is charged according to three river zones – west, central and east.

Around 500,000 journeys have been made along the Thames using Oyster pay as you go since it was introduced on MBNA Thames Clippers River Bus services last September.

Stand on both sides

Customers at Holborn station are being asked to stand on both sides of two escalators in a six-month trial to ease congestion at the station. The standing-only arrangement will be in use for the two escalators closest to Central line platforms. The pilot builds on the success of an earlier test that showed 30 per cent more people could travel on an escalator if they stood on both sides.

At stations with very long escalators, such as Holborn, few customers choose to walk, meaning that much of the left-hand-side of

the escalator is unused. Holborn station is one of the busiest on the Tube network, with more than 56 million customers each year.

Signs and customer information, developed with the help of the behavioural science team at the London School of Economics, will be tested at different times to see which work best. They include a talking projection of a customer service assistant, electronic versions of the triangular 'stand on the right' signs, signs on the floors, footprints on the escalator steps, handprints on the handrails and station announcements.

In the previous trial of standing on both sides, station control – temporarily preventing customers from entering the station because of crowding – was used on only one day during the first week of tests and not at all in the other two weeks. Before the tests, this happened several times a week.



Events around London are made easily accessible by Tube

Major events in London

In June, we had the ceremonial and celebratory events to honour the Queen's 90th birthday. The weekend of 10-12 of June was celebrated with a thanksgiving service in St Paul's Cathedral, Trooping the Colour and the Patron's Lunch in the Mall. The world-wide media coverage of these events demonstrated London's ability, through multi-agency working, to deliver ceremonial events of the highest quality while keeping traffic impacts to a minimum where possible.

Sporting events have remained an important part of the schedule. So far this year, we have helped deliver the London Marathon, the Vitality 10k, the London to Brighton Charity cycle ride, the British 10k and Formula E in Battersea Park. All have been planned and operationally managed effectively with event organisers to mitigate the impacts.

10 years of our Safety and Citizenship programme

The London Transport Museum has delivered

a decade of the TfL Safety and Citizenship initiative. The programme offers every Year 6 pupil in nearly every London school, every year a chance to learn about using public transport safely and responsibly. It also encourages children to walk and cycle. The programme keeps children safe and healthy and reduces congestion. Since the programme began, 1.1 million children have benefited from the training, which reaches 97 per cent of London's primary schools.

TfL Safety and Citizenship works with children in their last year of primary school in order to reach them before they start travelling independently. Studies show that messages delivered stay with children as they grow older and have a significant long-term impact on their knowledge, attitudes and behaviours. This gives children the knowledge and confidence to use transport to access the opportunities on offer in our city.

At the centre of the programme's success is a team of highly trained Schools Liaison Officers

and volunteer Transport Youth Engagement Officers drawn from TfL, London's bus companies and the police. They are supported by resources such as pop-up stations, buses, trams and riverboats, and sophisticated audio-visual material that enables the Museum to tailor discussions to any group.

The programme was expanded into secondary schools to address specific local concerns around safety, behaviour and ticketing issues. The Museum has delivered training for London Overground and the Canal & River Trust; and helped Emirates Air Line establish a successful schools scheme. The Museum's close relationship with the MPS has seen joint working on community events and targeted campaigns such as 'snatch' theft and Project Guardian, aimed at increasing reporting of unwanted sexual attention on public transport.

Transport skills for young Londoners

In March, I launched London Transport Museum's Enjoyment to Employment, a programme which brings together its work as a visitor attraction and several employability and skills programmes to create a clear journey into work, new partnerships and corporate support.

One way to increase the numbers and diversity of young people considering careers in engineering and transport is to start young, harnessing a child's early enthusiasm for transport. For the under-sevens the journey starts with a visit to a new play facility, All Aboard. Here, thousands of children each year act out mending vehicles, help passengers

with travel information and dress up as drivers and engineers.

The Museum makes sure this young enthusiasm for transport is not lost by taking real-life engineering challenges into schools, inspiring more young people to choose STEM subjects – science, technology, engineering and maths.

At age 16+, young people participate in the Museum's Route into Work employability programme. This is open to all young Londoners and links young people to apprenticeships and real jobs. The programme sees 50 per cent positive progression with 100 young people graduating from the course each year and going on to secure employment in transport and engineering. The Museum encourages young Londoners from black, Asian and minority ethnic (BAME) communities, young women and ex-offenders to apply for jobs and apprenticeships in the transport sector. In addition, it delivers its own Level 3 NVQ apprenticeship in Cultural and Heritage Operations, which offers entry routes into the cultural sector.

This transforming journey is achieved in coalition with the transport industry, TfL's Supplier Skills team, and the Museum works alongside organisations like A Fairer Chance and Job Centre Plus. Enjoyment to Employment is now funded by Siemens and Telent and the Museum is actively looking to expand financial support for its work.

4 Value – efficient and effective delivery

Advertising policy

On 13 June, the Mayor announced a ban on unhealthy body image advertisements across our network. Working closely with the Mayor, we have revised our advertising policy to reflect these changes, and this has been done in full consultation with our advertising partners Exterion Media and JC Decaux.

The Mayor has also asked us to establish an Advertising Steering Group including representation from our advertising partners, as well as a range of stakeholders, reflecting the full diversity of London. This group will monitor our approach to advertising and to keep the policy and its application under regular review.



Advertising contract

On 17 March, we appointed Exterion Media as our advertising partner for the world's largest rail advertising contract. The partnership covers the advertising space on trains and at more than 400 stations, bringing together for the first time all activity across LU, LO, London Trams, DLR and the Victoria Coach Station. Once it is operational, the Elizabeth line will also be included. As well as

selling the advertising space, the partnership will also invest in a number of new and innovative advertising products. These new products will enable us to maximise revenue from our advertising estate and improve customer experience.

The partnership will provide around £1.1bn to our commercial revenue targets of £3.4bn by 2023.





Emergency Services Network (ESN)

The ESN project, which supports the Home Office's plans to move emergency services from the Tetra radio system to a 4G mobile phone service, began following the completion of Home Office £3.9m grant agreement.

The project will deliver a 4G signal connected to EE's network in all sub-surface stations and all tunnel sections.

The target date for completion is December 2017 at an estimated cost of £62m. The first phase – a pilot of six stations and the tunnel section on the Waterloo & City line – will be finished by the end of August 2016.

Actimel

Launched on 11 April, for a period of five days, the activities centred around Canary Wharf, Farringdon, Westminster, Green Park and Tottenham Court Road stations. The stations had a mix of Actimel branding, music provided by 'The Stay Strong Brothers' on our busking

spots, and product sampling. This activity generated £225,000 for us.

Energy and water efficient technologies

A collaborative project involving teams from across LU and Rail has led to a cash rebate claim in excess of £1m being submitted to HMRC for the 2014/15 tax year.

Enhanced Capital Allowances (ECAs) enable a company to reclaim 19p for every pound spent on the design, purchase, delivery, installation and commissioning of energy and water-efficient plant and machinery. A wide range of assets qualify for ECAs, from lighting, motors and air conditioning units to low flush loos and taps.

The ECA steering group has worked to ensure that qualifying technologies are installed (and that the information needed for the claim is collected) as stations, depots and office buildings are upgraded. As we continue to invest in our network, it's vital that we

minimise both capital and operational costs – and installing efficient technologies helps us achieve this.

We are launching a new tool in July to simplify the process of claiming ECAs, and will continue to make sure that eligible products are specified in procurement and contracts and used across engineering departments. Our aim is to increase the value of ECA claims year on year in proportion to our investment plan.

Transport for London Act 2016

The Transport for London Act 2016 received Royal Assent on 4 May 2016. The powers in the Act will:

- Give our subsidiaries the power to grant security when they borrow and acquire companies with existing security, subject to the consent of the Mayor and, in respect of core operational assets, the consent of the Secretary of State

- Expand the list of entities through which we can undertake commercial activities to include limited liability partnerships and companies limited by guarantee, so we are able to conduct our affairs more flexibly and get the maximum value from our assets

- Give us greater hedging powers, responding to changes in the way that financial institutions hedge risk away from specific commodity trading to trading by indices, for example in relation to fuel prices. It allows us to mitigate our exposure to risk by virtue of contractual arrangements with others for the provision of transport services and in respect of our liability to the pension fund

These welcome legislative changes will allow us to work more efficiently and cost effectively by providing access to cheaper finance; compete more effectively for investment opportunities; and limit our exposure to market risks such as fluctuations in fuel prices.

5 People and awards

Queen's Birthday Honours

Two colleagues were recognised in the Queen's Birthday Honours. Dr Olivia Carlton, Head of Occupational Health, has been given an OBE for services to TfL and Occupational Medicine. Charles (Chad) Frankish, Programme Manager, has been recognised with a BEM for services to transport and the community in London.

Crossrail chairman Terry Morgan CBE was also recognised with a Knighthood for services to UK infrastructure, skills and employment. Sir Terry was appointed as Crossrail Chairman in 2009 and last year he was chosen by the Government to lead the development of a transport infrastructure skills strategy, which was published in January.

ICE London Civil Engineering Awards

The Victoria Station Upgrade project team has won an industry award for its work on a new underpass: the 2016 ICE London Civil Engineering Award for Complex Infrastructure. The project team includes colleagues from LU and contractor Taylor Woodrow BAM Nuttall.

Ground conditions and space constraints made building the underpass challenging. The team decided to remove the tracks and put the roof slab in place during a six-day Christmas blockade. They built the underpass without further closures, reducing the effect of the project on customers' journeys.

The win crowned a good night for LU, as the team behind the tunnel relining works between Baker Street and Bond Street also picked up the Best Digital Engineering award.

Cool winners

LU's Cooling the Tube team has received the prestigious Collaboration of the Year Award at the Heating & Ventilation News Awards. The winning partnership between LU and London South Bank University (LSBU) designed and trialled a new air handling unit for station platforms, which uses an innovative fan chiller system to pump cold air into the station and reduce temperatures on the network. The LU team has been working with LSBU on a number of projects exploring how the network can be kept cool in a cost-effective and environmentally friendly way.

European Women in Construction and Engineering Awards

Two of LU's three finalists at the European Women in Construction and Engineering Awards, have gone on to win their respective categories.

Against tough competition, Sharon Fasanya won Best Woman in Construction Planning and Melanie Ogden won Best Young Woman in Construction. Romany O'Dell, who was also nominated, did very well as a finalist in an equally competitive Young Woman Engineer category.

As well as recognising outstanding achievement, the European Women in Construction and Engineering Awards help to create role models for women considering a career in construction or engineering, by shining a light on the successes of others.



European Women in Construction Awards helps women by highlighting their success in the field

20 Most Inspirational Women in Rail

Sally Clarke, Upgrades Delivery Manager (Crossrail & 3rd Party), has been recognised as one of the 20 Most Inspirational Women in Rail.

Launched in February, the Women in Rail survey is the first of its kind, celebrating women in the UK railway sector who have positively influenced others through their railway careers and are an inspiration to peers, colleagues and those interested in joining the industry.

Nominees were judged on the number of nominations, and their impact on colleagues, customers and on the future of the rail sector. There were nearly 200 nominations from across the industry. The top 20 were chosen by Women in Rail's Steering Committee.

Inclusion and Diversity Champion of the Year

We were recognised as Inclusion and Diversity Champion of the Year at the ACE Consultancy and Engineering Awards ceremony.

We were commended for our work to encourage the increase of the proportion of women in our workforce and supporting staff networks for carers, BAME, LGBT, faith and wellbeing, disability and women.

The judges were impressed with one of the main campaigns over the past year promoting 100 Years of Women in Transport.

Industry Champion Award

Jo Field, Head of Campaigns, Communications and Engagement, won the Industry Champion accolade at the Everywoman in Transport and Logistics Awards on 26 May. These honours celebrate the most inspirational women in transport and Jo was recognised for the vital role she has played in encouraging more women into the industry.

Women in Transport legacy launch

The 100 Years of Women in Transport (YOWIT) programme launched its legacy phase at City Hall on 16 May and will now be referred to as just Women in Transport.



More than 180 people attended the Women in Transport legacy event in May

Attended by more than 180 people from across the industry, the event opened with a short film summarising the great success of the programme to date. Val Shawcross CBE and I spoke about the critical need for a more diverse workforce and how essential it is if we are to deliver faster for London.

I also unveiled the new schools toolkit 'Inspiring a generation', which can be accessed at www.inspiringageneration.tumblr.com. It is an important part of the legacy and aims to engage, inspire and motivate young people to choose careers in transport. It brings together an overview of all the wonderful opportunities available in our industry for the first time.

The original programme was launched in November 2014 to mark a century since women began working in transport and celebrate their enormous contribution. The main aim has been to inspire, engage and motivate not only those currently in the field, but also the next generation.

It has achieved an unprecedented amount – a Guinness World Record for National Women in

Engineering day 2015, international recognition from the Inter-American Development Bank and the World Bank, and inclusion as a case study in the DfT's Infrastructure and Skills Strategy launched earlier this year.

Women in Transport will continue to build its pan-industry network, which now has more than 12,500 people across 270 organisations. A full programme of events will take place in the coming months to further engage and inspire.

Awards for Women in Transport

On 12 May the programme received the Diverse Marketing Campaign of the Year honour at the Excellence in Diversity Awards. More than 1,000 nominations were received from companies throughout the UK.

HR Excellence awards

YOWIT programme was successful in winning the 'Diversity and Inclusion award' at the prestigious HR Excellence awards recently. The judges described the programme as 'in a different league' and 'streets ahead'. This makes it a hat-trick of awards for YOWIT, having also recently won 'Diverse Marketing

Campaign of the Year' at the Excellence in Diversity awards and the 'Inclusion and Diversity award' at the Consultancy and Engineering awards.

New diversity traffic signals for Pride in London

In the run up to the event, we installed 48 pedestrian signals around Trafalgar Square showing symbols celebrating same-sex relationships. This was made possible through a joint venture with Siemens and our Traffic Infrastructure team, part of the Asset Management Directorate.

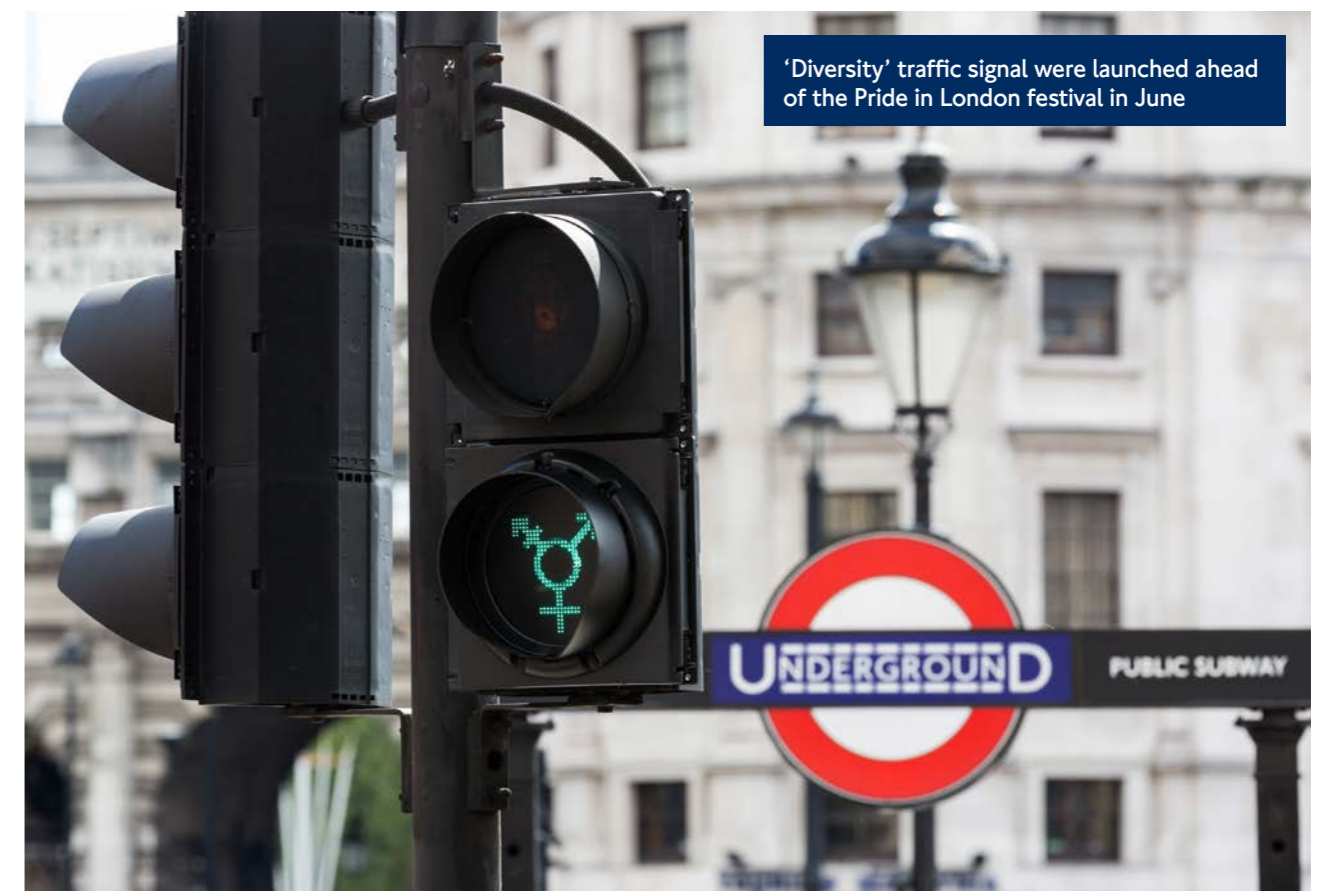
Similar to a scheme in Vienna, the initiative followed an approach by the Mayor. It was overseen and approved by OUTbound – our

lesbian, gay, bisexual and trans network. Unique to the London scheme was the introduction of gender images that, for the first time anywhere, included a widely recognised trans symbol.

The Traffic Infrastructure team completed the entire process within four weeks, which included in-house design. The final installation was carried out free of charge by Siemens, with the Mayor attending the press launch along with OUTbound Chairman Martyn Loukes BEM.

Northern line extension (NLE) – inspiring the next generation

The NLE team has been busy with educational and engagement events aimed at inspiring and encouraging young people to consider a career in construction.



'Diversity' traffic signal were launched ahead of the Pride in London festival in June

6 Planning

In February, the team partnered with Talent Match, an organisation that enables young people to overcome the barriers they face when entering the world of work, for an event at the NLE Battersea Power Station site. It offered an insight into the anatomy of a major infrastructure project and career paths in the construction industry.

In an event that coincided with International Women's Day, the team also visited Burntwood School for Girls to promote female role models and encourage careers in science, technology, engineering and maths. It was an opportunity to introduce the students to the NLE project and to break down the stereotypes that surround the construction industry. More than 300 pupils attended and the response was overwhelmingly positive.

Old Street Station

Old Street station pop-up mall won a prestigious British Council of Shopping Centres Opal Award on 20 April in the 'Other Retail Environments' category.

Employer Brand Management Awards

On 26 April we were presented with a gold award at the Employer Brand Management Awards, recognising the 2015 recruitment campaign for technology roles within our Customer Experience team. It reached more than 1.3 million people via social media and videos, highlighting to candidates the many opportunities available.

Barking Riverside London Overground Extension

On 31 March we submitted our application to the Government for a Transport and Works Act Order to start building the 4.5km extension of the Gospel Oak to Barking line. This extension would deliver LO services to a new station at the heart of the Barking Riverside community, with construction beginning in late 2017 and train services commencing in 2021.

The extension will unlock a wide range of benefits for people in the local area and beyond, including almost 11,000 new homes, many of which are affordable, along with a new school and healthcare facilities and the construction of a new district centre with commercial and leisure facilities. The extension will deliver a sustainable public transport alternative to car travel and link Barking Riverside into London's public transport network through connections at Barking, with District and Hammersmith & City Tube services and c2c services to London Fenchurch Street and Essex.

The extension is fully funded, with the majority of the £263m cost of the scheme being met by the developers, Barking Riverside Limited, a newly reformed joint venture between the GLA and London & Quadrant, who are providing £172m of funding. The remainder is being provided by us.

Air quality

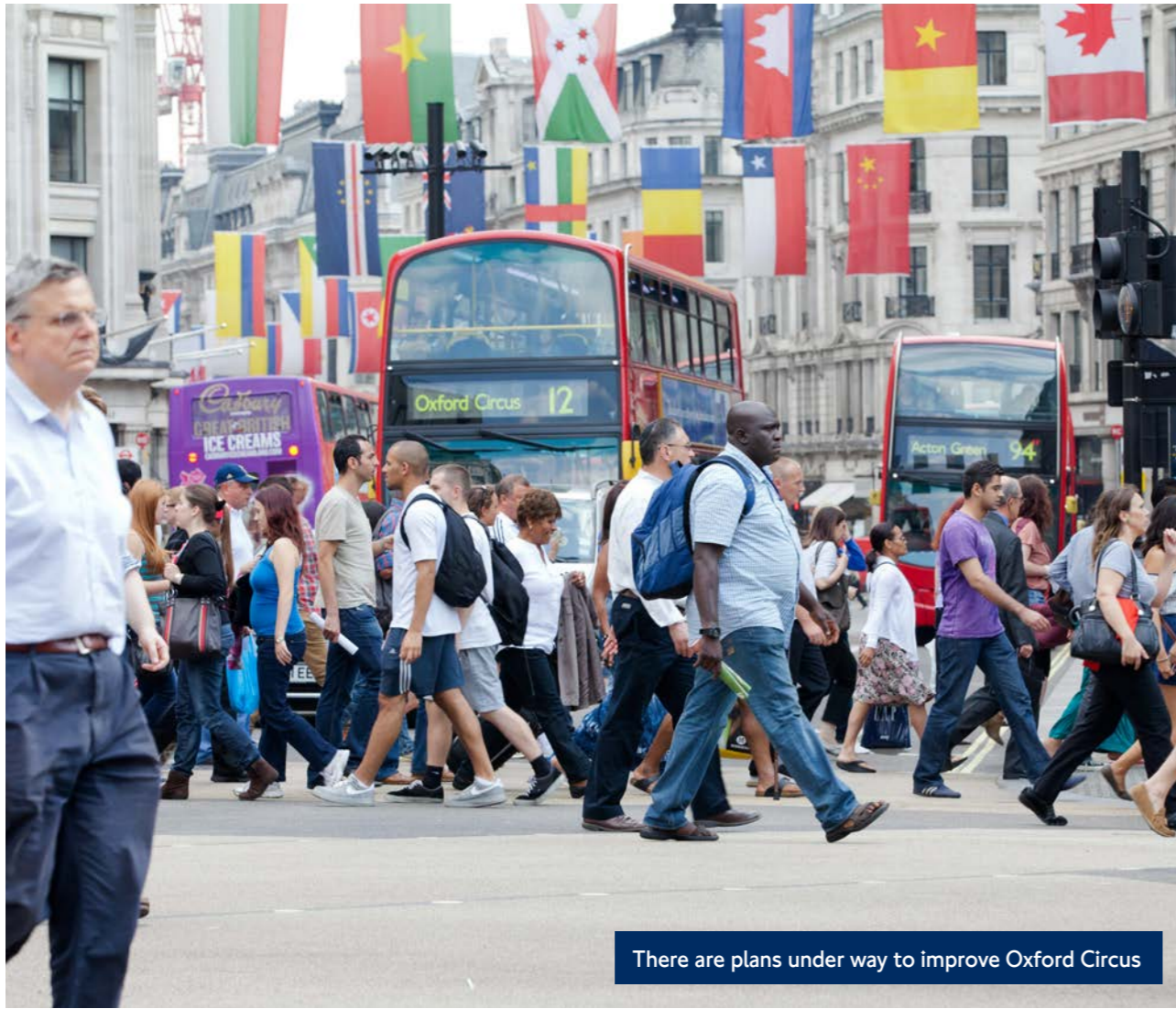
On 5 July, the Mayor launched ambitious plans to crack down on the most polluting vehicles in London.

Research shows that around 9,500 Londoners die prematurely from long-term exposure to air pollution every year and latest figures have revealed that more than 440 schools in the capital are in areas exceeding safe legal pollution levels.

Londoners are being asked for their views on the Mayor's Clean Air Action plan. The public have until Friday 29 July 2016 to feed back on the first round of the consultation, which is being run by the GLA. A more detailed consultation will take place later this year and some measures could be in place as early as 2017.

Key proposals include:

- Introducing a £10 Emissions Surcharge (dubbed the 'T-charge') on the most polluting vehicles entering central London from 2017. The charge would apply to all vehicles with pre-Euro 4 emission standards (broadly speaking those registered before 2005) and will cost an extra £10 a day on top of the existing Congestion Charge
- Introducing the central London ULEZ one year earlier in 2019
- Extending the ULEZ beyond central London from 2020 for motorcycles, cars and vans, to the North and South Circular; and for lorries, buses and coaches London-wide
- Developing a detailed proposal for a national diesel scrappage scheme for Government to implement



There are plans under way to improve Oxford Circus

- Bringing forward the requirement for all double-deck buses to be ULEZ-compliant in central London from 2020 to 2019
- Implementing clean bus corridors – tackling the worst pollution hotspots by delivering cleaner buses on the dirtiest routes

The Emissions Surcharge in 2017, followed by an expanded ULEZ in 2020, would be the toughest crackdown on the most polluting vehicles by any major city around the world.

On the 60th anniversary of the Clean Air Act, the Mayor delivered a keynote speech at the consultation launch and visited a Great Ormond Street Hospital specialist ward caring for children with a variety of respiratory

conditions which are all adversely affected by poor air quality.

Oxford Street – London Assembly Transport Committee

On 15 June, Alex Williams, Acting Managing Director of Planning, appeared in front of the London Assembly Transport Committee to discuss plans to improve Oxford Street. Representatives from Westminster City Council, the New West End Company, Living Streets, London Travelwatch and the Licensed Taxi Drivers Association also attended.

Issues discussed included pedestrian safety, options for pedestrianisation of Oxford Street and the potential impact on the bus network and taxi and private hire services of any

changes. Further work on all of these issues is under way and we will discuss options in more detail with the West End Partnership.

Crossrail 2

The National Infrastructure Commission (NIC) published its 'Transport for a World City' report in mid-March, endorsing the scheme and recommending that Crossrail 2 should be taken forward as a priority. It further recommended that funding should be made available now for submission of a Hybrid Bill in 2019, with the opening of Crossrail 2 in the early 2030s.

In his March Budget, the Chancellor announced a large programme for rail investment in the UK. Crossrail 2 was given the green light to proceed to the next stage of development with £80m of funding; TfL committed to match fund the development work.

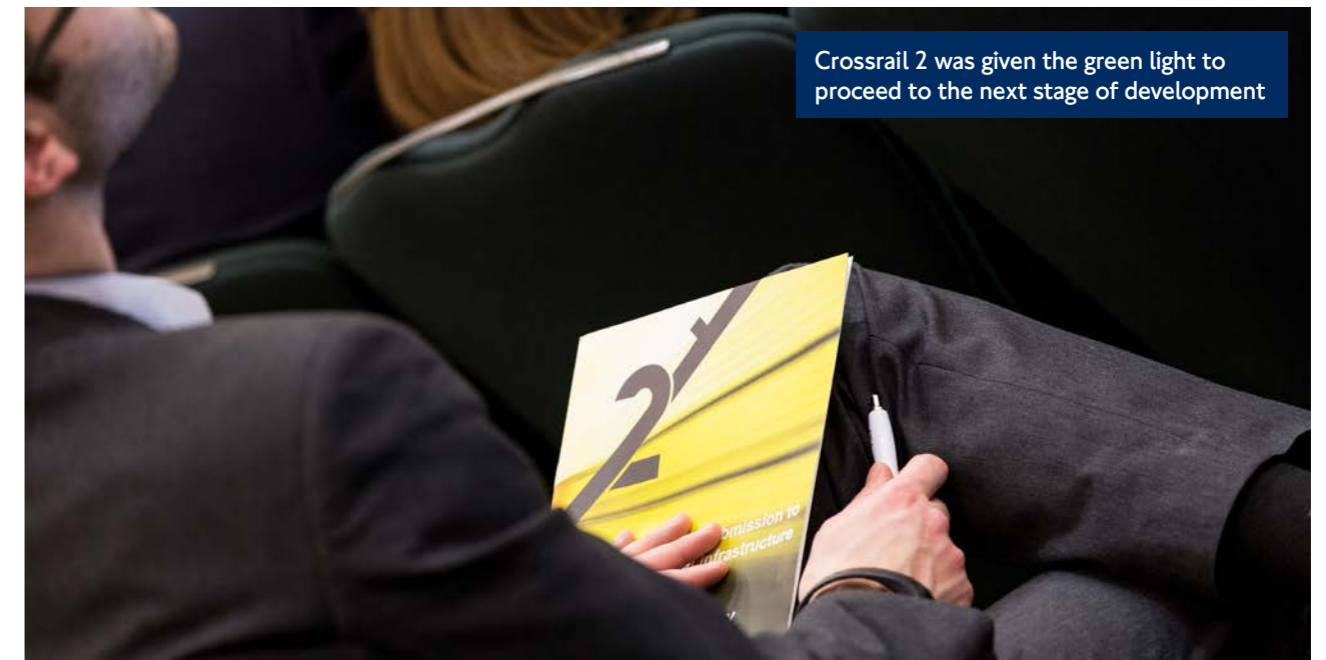
Lord Andrew Adonis has been appointed by the Mayor and Secretary of State for Transport to the role of Chair of the Crossrail

2 Programme Board. Lord Adonis is a strong advocate for Crossrail 2 and has taken up this position alongside his current role as Chairman of the NIC.

The first meeting of the Programme Board took place on 30 June and was attended by representatives from TfL, the DfT, Network Rail, HM Treasury, the Infrastructure and Projects Authority, the Department for Communities and Local Government and the GLA. Attendees were given a briefing on the project before discussing the programme for the next period and looking at important decisions that will need to be made in the coming months. The next meeting of the Board will take place at the end of July.

A number of Crossrail 2 reports were published over the past quarter:

- Analysis from the autumn 2015 consultation was published in March. The Consultation received nearly 21,000 responses and the



Crossrail 2 was given the green light to proceed to the next stage of development

report details the issues and concerns raised along the route. Further design and development work is continuing and another consultation will take place in the autumn

- Following the consultation analysis report, a Response to Issues Raised document was also published. This demonstrated how responses to the consultation have been considered and sets out how comments made through the most recent consultation have helped to shape the scheme

A programme of targeted local engagement activity at 'hotspot' areas along the route is under way. This includes email updates, stakeholder meetings, press briefings and focused social media activity. Crossrail 2's social media presence continues to grow with over 2,500 Twitter followers to '@Crossrail 2', as well as a new Crossrail 2 Facebook page. The Crossrail 2 website is being refreshed to ensure it is more customer focused, with more content and visuals and an improved content layout.

List of appendices to this report:

None

List of background papers:

None

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