

Board



Date: 30 January 2018

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 9 November 2017 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 – January 2018

List of Background Papers:

None

**Mike Brown MVO
Commissioner
Transport for London
January 2018**

Commissioner's Report

30 January 2018



About Transport for London (TfL)

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

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

We manage the city's 'red route' strategic roads and, through collaboration with the London boroughs, can help shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency and improve air quality, revitalise town centres, boost businesses and connect communities.

We run most of London's public transport services, including the London Underground, London Buses, the Docklands Light Railway, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, we can make people's lives easier and increase the appeal of sustainable travel over private car use.

We are moving ahead with many of London's most significant infrastructure

projects, using transport to unlock growth. We are working with partners on major projects like Crossrail 2 and the Bakerloo line extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when it opens, will add 10 per cent to London's rail capacity.

Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

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

We are constantly working to improve the city for everyone. This means freezing fares so everyone can afford to use public transport, using data and technology to make services intuitive and easy to use, and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income to continually improve transport networks for the people that use them every day.

None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services. We all need to pull together to deliver the Mayor's Transport Strategy; by doing so we can create a better city as London grows.

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1 Introduction

This report provides a review of major issues and developments since the Board meeting of 9 November.

2 Safety and security

Croydon tram derailment

On 7 December, the Rail Accident Investigation Branch (RAIB) published its report into the tragic overturning of the tram. This was considered in detail alongside the independent report we commissioned from SNC Lavalin at a special meeting of the Safety, Sustainability and Human Resources Panel on 22 January.

We have accepted and fully support all of the RAIB's recommendations, which are presented in a separate paper at this meeting. We will continue to work to ensure all of the recommendations it makes are met.

Our thoughts remain with everyone affected. The Sarah Hope Line continues to be available to all those affected to provide help with counselling and other support.

King's Cross fire: 30th anniversary

The 18 November was the 30th anniversary of the fire at King's Cross station. A multi-faith service was held at St Pancras Church. It was attended by family and friends of the victims, the Mayor and representatives from London Fire Brigade, British Transport Police, London Borough of Camden, London Ambulance Service and National Health Service England, as well as London Underground and TfL staff, past and present.

The Mayor and I also attended an event and wreath laying ceremony at King's Cross station alongside the Trade Unions, survivors and their families.

Thirty-one people lost their lives in the 1987 fire. The tragic events of that evening fundamentally changed the way we manage safety across London Underground (LU) and have had a lasting impact on everything we do.

Customer safety

Over the summer, we have improved safety at the stations with the highest number of customer accidents, with particular emphasis on finding new ways to communicate with our customers. We have since focused on sharing experience across stations and employees have come up with a wide variety of approaches. These include station-specific posters, and having family members help spread the word. At Vauxhall, for instance, the 10-year-old daughter of the Customer Service Manager there recorded the PA message 'If you've got young kids like me, or are carrying heavy bags and cases, why not use the lift?'

These messages are already making a difference. During the month of the trial, there was a 100 per cent reduction in the number of incidents on escalators at the station. Several customers have said the messages have made them stop and think about their safety when using our network.

We have been trialling a new announcement on our bus network to help reduce the number of people hurt in slips, trips and falls, which caused up to 3,000 injuries on London Buses last year. We encountered some initial problems with the timing of the announcements but this has now been rectified. We will carefully monitor the trial to see how effective it is in reducing injuries.

Alcohol awareness

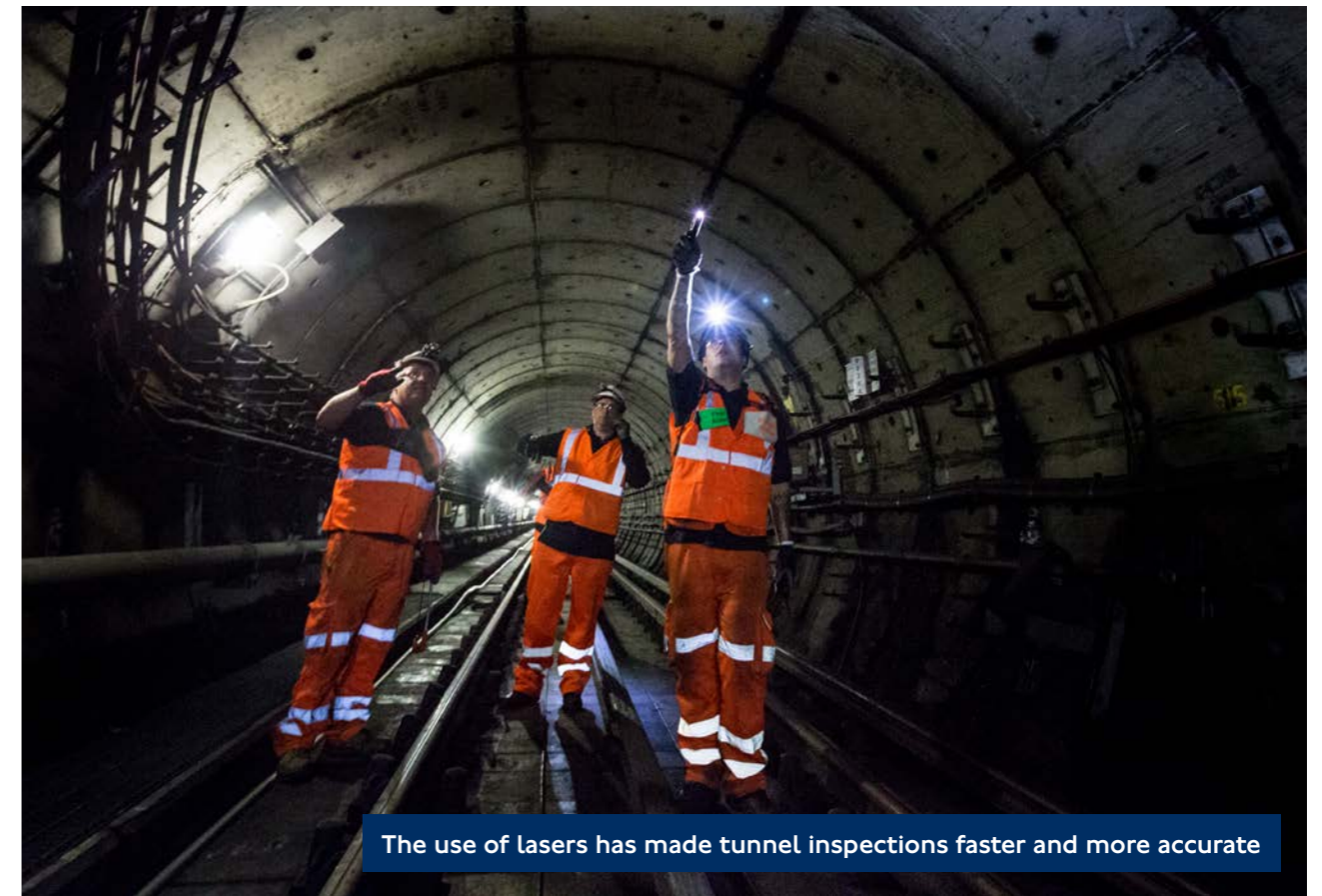
To coincide with the Christmas period, we launched our alcohol awareness campaign with a simple message for Tube users: please take care after drinking.

Traditionally the number of alcohol-related accidents on the network increases over Christmas and New Year, with data showing a significant spike in alcohol-related customer accidents from early November to early January. The most common accidents involve people falling down stairs or escalators, or falling over on platforms. Alcohol is a contributing factor in approximately seven per cent of all incidents on our Underground and Overground and DLR network.

This campaign built on the year-round work to promote safety. Awareness posters were displayed at stations across the network and in pubs near Zone 1 stations. Additionally, we made announcements at stations and used social media posts to send messages to our customers.

Workforce safety

We have had some considerable achievements in our workforce safety. The Northern line extension recorded no serious injuries during its 3.2km of tunnelling, and the modernisation of the Circle, District, Hammersmith & City and Metropolitan lines has recorded more than three million hours without a RIDDOR incident.



The use of lasers has made tunnel inspections faster and more accurate

These achievements come alongside our concerted effort to emphasise leadership and engagement on safety with our staff on the front line. Our leaders will be carrying out a programme of Health, Safety and Environment tours on visits to operational and maintenance locations to talk to our front line teams and understand what more we can all do to reduce accidents at work.

Supplier safety

We are also working with our suppliers to improve the safety of their workforces. Through analysis of recent trends, we have identified that some scaffold towers were not being erected to recommendations from the Prefabricated Access Suppliers' and Manufacturers' Association – the recognised authority for mobile access towers – or to manufacturers' assembly instructions. We have raised this with our supply chain and reviewed sites using towers and podiums to ensure awareness is improved throughout our business.

We have also been working with Exterion Media on a worker safety forum for its teams undertaking advertising works. The forum uses a combination of personal stories and interactive sessions, with a focus on the importance of incident reporting and following established safety systems.

Tunnel inspection

Two years after we started using lasers to identify defects in tunnels, we are now securing huge safety and efficiency benefits.

Previously our main inspection methods involved inspectors working at height in a programme that took four years to survey the 21km of tunnels on the Circle, District, Hammersmith & City and Metropolitan lines. It now takes just two weekends, removing a high-risk activity and allowing our teams to focus on analysing the data and inspecting other assets. The laser process is also much more precise, saving millions of

pounds of unnecessary works while also detecting defects not visible to the human eye so that we can take action as soon as possible.

We will extend this approach to other lines, and a trial on the Bakerloo line has already been completed. Engineering trains can be used to gather data on other assets while they inspect tunnels, so other teams can also benefit.

Operation Safeway

To address the seasonal increase in the number of people killed and seriously injured (KSI), we worked with the Metropolitan Police Service (MPS) to tackle dangerous road activity during the first week of November. The operation involved more than 2,000 officers alongside our own on-street staff, focusing on key sources of road danger such as speed and the use of mobile phones. The MPS made 73 arrests, processed 2,331 offences and engaged with more than 4,000 road users.

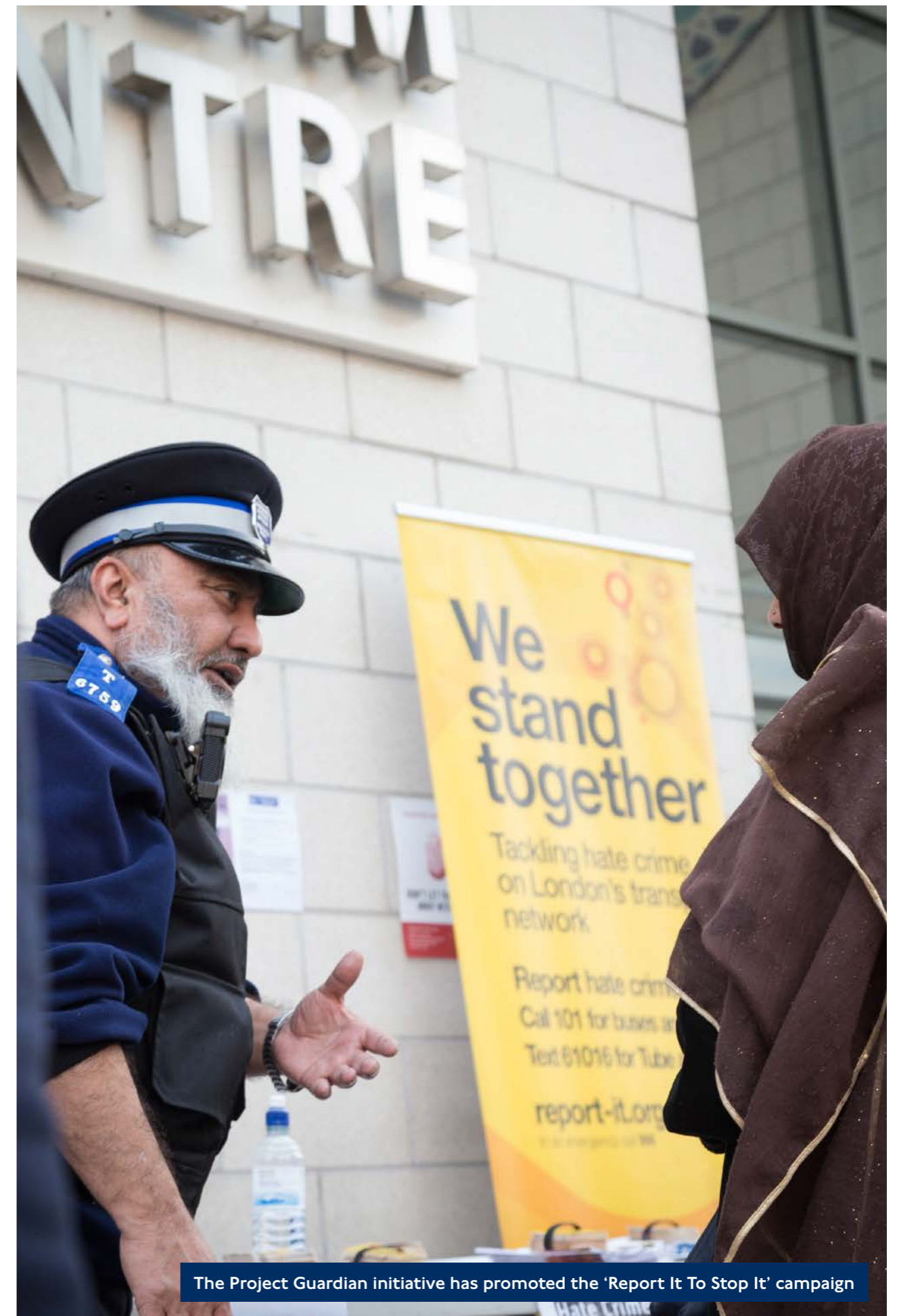
Project Guardian – tackling unwanted sexual behaviour head on

We are continuing to work with the police to tackle unwanted sexual behaviour on public transport as part of Project Guardian – a long-term initiative aimed at improving confidence in reporting sexual offences, reducing the risk of becoming a victim and targeting offenders. This operation includes policing and enforcement and the 'Report It To Stop It' campaign.

On 25 November, in support of the International Day to Eliminate Violence Against Women and Girls, we worked with the police to run a Guardian day of action. This included plainclothes officers targeting offenders to stamp out this behaviour from our network. It was also featured in the global BBC 100 Women series. The day concluded with an interactive workshop on board a converted London bus. Ideas for a social media campaign were discussed that encouraged people to speak up if they are being harassed.

Making roads safer

In November, we began consulting on the first element of a new Temporary Traffic Management handbook to supplement the national guidance on traffic management design considerations for streetworks and roadworks in London. The handbook supports the Mayor's Healthy Streets and Vision Zero approaches to improve health and safety on the road network. The guidance will be released in stages, with the first chapter focussing on 'Cyclists at Roadworks'. We will be working with key stakeholders to improve the draft document and ensure traffic management is well designed and sufficiently risk assessed to meet the needs of all road users, particularly cyclists.



The Project Guardian initiative has promoted the 'Report It To Stop It' campaign

3 Healthy Streets and healthy people

Walking and cycling

Increase in walking and cycling and record hires for Santander Cycles
In 2016/17, there were 5.94 million trips on an average day involving just walking, up from 5.49 million in 2015/16.

Our most recent data shows an 8.8 per cent increase in cycling (up from 670,000 in 2015 to 730,000 in 2016).

It was also a record year for the Santander Cycles scheme, with nearly 10.5 million hires, and new bikes by Pashley introduced to the scheme.



Cycle Superhighways

In November and December we carried out resurfacing work along the East-West Cycle Superhighway in St James's Park. Cyclists are now able to travel the entire length of the route all the way from Lancaster Gate, through Hyde Park, passing such landmarks as Buckingham Palace and the Houses of Parliament and on to the Tower of London. This is where it joins the existing Cycle Superhighway 3 route.

Public consultations for Cycle Superhighways 4 and 9 have now closed. A strong postal and email campaign was backed by stakeholder meetings and events. We are now evaluating the responses and will set out the findings in consultation reports for both routes soon.

Rotherhithe to Canary Wharf Crossing

We completed our two month consultation on the proposed crossing between Rotherhithe to Canary Wharf on 8 January. It was supported by a series of public events in November on both sides of the river. We are still finalising the analysis of responses and will report on the outcomes in the coming months.

Liveable Neighbourhoods

The new Liveable Neighbourhoods programme, which launched in July, attracted 28 bids from the London boroughs in its inaugural annual bidding round.



We have awarded feasibility funding to seven schemes:

- Greenwich town centre (Greenwich)
- Crouch End (Haringey)
- West Ealing (Ealing)
- Romford Ring Road (Havering)
- Coppermill Village (Waltham Forest)
- Hackney Central (Hackney)
- Deptford Park (Lewisham)

A number of these are area-based schemes that will make walking, cycling and public transport the best choices for travel. Together with traffic reduction measures, they will create safer, more attractive, accessible and people-friendly streets and neighbourhoods.

Events

In November we hosted the Royal British Legion's 2017 London Poppy Appeal, during which more than £800,000 was raised. The annual Armistice and Remembrance Sunday memorial events took place across London over 11-12 November to commemorate 99 years since the end of World War One. We coordinated works across the network, with some postponed or cancelled to enable the many ceremonies to take place. The Lord Mayor's show was also staged that weekend, requiring extensive road closures for the parade and the fireworks display.

The New Year's Eve 'Marking of Midnight' fireworks celebration was watched by around 110,000 spectators from the ticketed viewing area. The transition from that event to the annual New Year's Day Parade, involving a number of road closures, went smoothly.

January also saw the return of the Lumiere Festival, the spectacular lighting show highlighting the works of world-renowned artists across central London. The four-day event, which ran from 18 to 21 January, attracted vast crowds of spectators to the artworks, strategically placed around central London and also on the South Bank for the first time.

Streets Oxford Street

We are working closely with Westminster City Council on the major project to transform Oxford Street.

In agreement with the Council, we extended the second stage of consultation on Oxford Street West until 3 January 2018. We are now analysing the results of the consultation and, depending on the nature of the feedback and any subsequent changes to our proposals, we are still on course to publish the consultation response report in March. We are continuing to talk with key resident and business groups and other stakeholders to ensure we receive the broadest range of responses and alleviate as many concerns as possible.

We are also continuing to carry out feasibility work on the options for Oxford Street East.

We have developed new interactive maps and films to improve the information we provide during our consultations, and in particular to help make complex

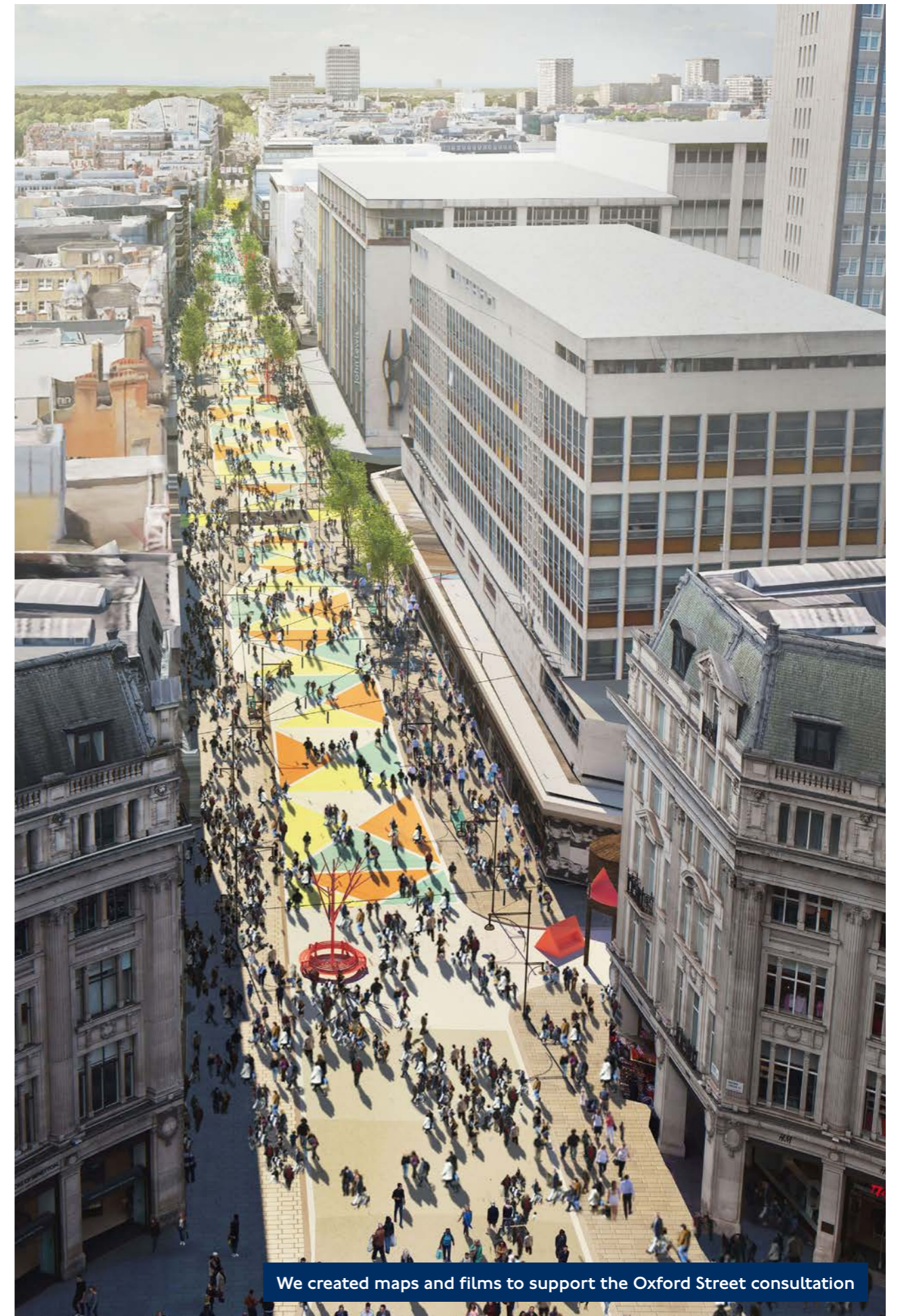
modelling data easier to understand. These are proving to be essential tools for our Oxford Street consultation – the maps were viewed over 1,000 times in the first week of the consultation. They provide easy-to-understand visual representations on how buses, pedestrians and general traffic would use Oxford Street West under the proposals.

Ardleigh Green Bridge replacement

We are replacing the current structure on the A127 Southend arterial road in the London Borough of Havering. Following the successful launch and installation of the first half of the new bridge in September 2017, highway works have been completed and traffic was switched on to the new eastern half of the bridge in mid-December. We are now focused on the work to demolish and replace the western half of the bridge and re-open all four lanes of traffic on the A127 by spring 2019.

Highbury Corner Bridge

We have now completed the extensive utilities diversions and the final stage of demolition and reconstruction of the two bridge spans over the London Overground East London and North London lines at Highbury Corner. The bridges carry the A1 Holloway Road and form part of a busy interchange. A full closure of the A1 in both directions took place for three weeks over Christmas 2017 to allow the contractor to rebuild the road, which reopened to traffic on 8 January 2018.



These complex works were completed while keeping Highbury & Islington station operational for Victoria line and National Rail services, and allowing road traffic to keep flowing in the wider area.

Westminster Bridge South

In November we resurfaced 8,000 square metres of carriageway on Westminster Bridge Road and Lambeth Palace Road outside St Thomas' Hospital, with access to the hospital maintained at all times. We have now completed all these highway works, and the East-West Cycle Superhighway on the north side of the Thames is now connected to the dedicated cycle lanes and separate cycle facilities at Westminster Bridge. To further improve the area, particularly for pedestrians and cyclists, in December we introduced an experimental 20mph speed limit across Westminster Bridge and along York Road to meet the existing 20mph zones at the Waterloo IMAX roundabout and Lambeth's borough-wide speed limit.

Improving Air Quality

Silvertown Tunnel

On 7 November, the Secretary of State for Transport extended the deadline for the decision on the Silvertown Tunnel Development Consent Order (DCO) to 10 May this year to enable further consideration of the effect of the scheme on air quality. This followed a similar deferral last year from 11 October to 10 November. On 14 November the Department for Transport (DfT) asked

us to undertake further air quality modelling using the latest data issued by DEFRA. We are now in the process of completing this modelling, having advised the DfT on the additional guidance required, the work involved and the timings for completing the tasks.

T-Charge go-live

We have now been successfully operating the world's toughest emission standard – the Toxicity Charge (T-Charge) – for three months, following its launch by the Mayor in October. Implemented to help tackle London's lethal air pollution, it means that the most polluting petrol and diesel vehicles pay the T-Charge plus the Congestion Charge – a total of £21.50 – every weekday when they drive in the zone from 07:00–18:00.

Since its introduction, the number of polluting vehicles driving in the Congestion Charge zone has dropped by almost 1,000 a day when compared with the previous month.

There are currently 2,000 vehicles paying the T-Charge each day and around 49,000 T-Charges were paid in the first five weeks of the scheme.

The charge is also having a wide impact on awareness and behaviour, with more than 500,000 visits to the online T-Charge Compliance Checker since it went live in April.

Zero Emission Capable (ZEC) taxis

On 1 January, we introduced a new licensing requirement to reduce emissions from the taxi fleet by phasing out diesel taxis and increasing the number of ZEC vehicles in London. This initiative forms part of the Mayor's Taxi and Private Hire Action Plan and is aimed at establishing London's taxi fleet as the greenest in the world.

Taxis presenting for licensing for the first time in London will now need to be ZEC. This means having CO2 emissions of no more than 50g/km and a minimum 30-mile zero emission range. A first-time taxi vehicle licence will no longer be granted to a diesel taxi, and ZEC taxis with petrol engines will need to meet the latest emissions standard (currently Euro VI).

Rapid charging infrastructure

We are building a network of rapid charge points across London. By the end of December, we had installed 66 across our highways, car parks and in partnership with private land-owner partners, with 46 dedicated to taxis. There were also 23 rapid charge points previously installed by independent providers accessible to the general public within the M25 boundary.

We will have installed a total of 75 rapid charge points by the end of January.

4 A good public transport experience

Boston MBTA award contract to Cubic Transportation Systems

On 20 November, the board of Boston's Massachusetts Bay Transportation Authority (MBTA) announced it will introduce a new automatic fare collection system modelled on the contactless technology we have developed. The contract was awarded to Cubic Transportation Systems to design, build, operate and maintain a next-generation fare payment system, including account-based ticketing using mobile and contactless bankcard options for the region's multi-modal transit system. MBTA will replace its current smart card when it completes the project.

We have been talking with the MBTA for many years and many aspects of its project draw upon experience in London. MBTA will also be replicating our third party retail network, allowing boarding through rear doors on some bus routes and extending the system to its suburban rail network.

Contactless payments continue to grow strongly. This method in London is responsible for around 50 per cent of the pay as you go revenue on Tube and rail and 44 per cent on buses. An average of 44,000 new contactless cards are used on our system every day, and we have accepted cards from 115 countries.

'Please offer me a seat'

Since the full launch last April of 'Please offer me a seat', designed to help people who often struggle to get a seat, we have issued 26,000 badges and cards. In December we asked users for their feedback. The evaluation found:

- 84 per cent of users have an invisible impairment
- 78 per cent find it easier to get a seat with the badge or card
- 75 per cent are offered a seat with the badge or card



Our new badges have proved popular and effective



We have worked to reduce disruption at the Blackwall Tunnel

- 91 per cent of customers would be happy to offer a seat to someone using the badge or card
- 95 per cent of users are likely to recommend the scheme to someone else
- 64 per cent of customers are aware of the scheme, though one-third believe it is for pregnant women

Many users raised concerns about awareness of the badge and card, and who it is for. We are now looking at more ways of improving awareness of people with invisible impairments and their need for a seat.

Blackwall Tunnel

We have been working with our partners to take a number of travel demand management steps to help reduce congestion and disruption at

the Blackwall Tunnel. The tunnel is one of the busiest sections on London's road network, and disruptions generate nearly 400 hours of delays at a cost to the Capital of almost £7m each year. Much of the disruption is caused by cars running out of petrol and vehicles being over-height, so we have used our own communication channels and partnerships to tackle these issues.

We partnered with Waze, a free crowdsourced traffic and navigation app, to remind drivers approaching the Blackwall Tunnel to have enough fuel. Over a six-month period 459 drivers – nearly 20 a week – acted on the message and re-routed to local petrol stations. We also saw a reduction in the number of tunnel breakdowns compared with the same period last year. Our work with Waze continues, giving drivers peak-time congestion information and faster journey options on certain routes on the



Britain's Got Talent winner Tokio Myers launched #Platform88

road network, thus helping users to avoid problems and enabling those who can travel at a different time to do so.

Thirty per cent of the trucks entering the UK through the Channel Tunnel are bound for London, so we have worked with Eurotunnel to provide information to these drivers. Thousands of leaflets enabling them to choose between Blackwall Tunnel and the Dartford Crossing according to the time of day, vehicle and height restrictions were produced in 10 languages and distributed to lorry drivers by staff from Eurotunnel's Le Shuttle. We are continuing to work with Eurotunnel, including incorporating the information into its website.

Using targeted customer emails and social media, we also provided drivers with peak-time congestion information and options for a quicker journey,

prompting two per cent of drivers to make their journeys outside the busiest time.

#Platform88

In partnership with Yamaha, we are making three pianos available at stations for customers to play. The first, at Tottenham Court Road, was launched with a performance by multi-instrumentalist, composer and producer Tokio Myers in November.

The two-year project #Platform88 takes its name from the number of keys on a standard piano and provides opportunities for musicians to play and entertain their fellow passengers.

During the two-year run of #Platform88, the pianos will move around the network to various stations, giving customers the opportunity to show off their musical talents.

At the end of the scheme one piano will be auctioned to benefit the Railway Children charity, which supports children alone and at risk on the streets in the UK, Africa and India. The remaining two pianos will be given to the London Music Fund and Music for All to pass on to a worthy school or young individuals to help encourage their musical journeys.

Art on the Underground

Artworks by the late Australian artist and activist David McDiarmid were shown above the entrance to Brixton Underground station and on posters at stations across London in the run-up to World Aids Day in December.

Art on the Underground's latest project is a collaboration with not-for-profit gallery Studio Voltaire and This is Clapham. David McDiarmid's 'Rainbow Aphorisms' (1993-1995), is a series of short statements on rainbow backgrounds that challenge familiar messages about HIV/AIDS.

Over the course of a year, there will be a number of public events, and artworks will also appear on Studio Voltaire's façade, the neighbouring LGBTQ+ venue Two Brewers and other temporary locations across Clapham and Brixton.

This is the first major presentation of the artist's work in the UK and has been mounted with the support and involvement of the David McDiarmid Estate in Sydney.

Elizabeth line

In early December, we took over the running of 11 stations between Acton Main Line and Taplow, excluding Slough. The stations will now be staffed from first to last train between Acton Main Line and Hayes & Harlington. All stations will be deep-cleaned ahead of other improvements such as refurbished waiting rooms and toilet facilities and the installation of new ticket machines and ticket gates. Work will begin in 2018 and is due to be completed by late 2019, ready for the full opening of the Elizabeth line.

The start of testing the Elizabeth line in the tunnel began on 28 October when a full length nine-carriage Class 345 train was brought into the tunnel at Abbey Wood, entering the line's central section for the first time. A full-length test train has also arrived at Old Oak Common Depot. In total, 31 of the new Class 345 trains have now been built by Bombardier Transportation in Derby with 12 of the new trains now available for passenger service on TfL Rail between Liverpool Street and Shenfield.

The Elizabeth line remains on course to open as planned in December 2018. In December, we marked the countdown of a year to go until the Elizabeth line service starts by releasing a new Tube map with the Elizabeth line displayed. Its inclusion will be among the most significant changes to the look of the Underground map in recent decades.



The new Tube map features the Elizabeth line

Crossrail construction progress

Overall the Crossrail project, which is now 90 per cent complete, remains on time. However, there are some increasing cost and schedule pressures on the project that Crossrail Ltd will continue to manage. In addition, software development by Bombardier for the new rolling stock, its testing and availability for Paddington to Heathrow services in May is behind plan. We are monitoring closely at senior level. The overall programme for December 2018 remains on track and we will continue to update on progress.

Significant attention continues on the safety regime for energisation and construction as well as the detailed plans for testing and commissioning, regulatory approvals, operational readiness and handover by the middle of this year to ensure a period of trial running and operations before passenger services begin at the end of 2018.

In December, Crossrail celebrated the creation of more than 1,000 apprenticeships on the project since it started in 2009. Roles created by Crossrail Ltd, Network Rail, Bombardier Transportation and MTR have supported the line's construction as well as the manufacture of the new Class 345 trains and future operation of the railway. This is mirrored within London Underground and other parts of TfL where we now have 400 directly employed opportunities and a further 200 through our supply chain in first half of 2017/18 alone.

Crossrail's art programme also made progress in December when the installation of A Cloud Index began at Paddington. Designed by acclaimed artist Spencer Finch and funded by Heathrow Airport and the City of London Corporation, the art is a cloudscape that has been printed on to the glazed roof of the new Elizabeth line station, making it

one of the largest permanent art works ever created in the Capital. An estimated 25 million passengers a year are expected to use Paddington Elizabeth line station.

In addition, the art to be installed on the Elizabeth line platforms at Whitechapel – with funding provided by the City of London Corporation, a grant from the Art Fund and a contribution from the Randeree Charitable Trust – has now been confirmed. Inspired by the rich diversity of the local community, artist Chantal Joffe will create large-scale collages for the platforms walls.

Crossrail was awarded Client of the Year at the New Civil Engineer Tunnelling awards during December.

Network Rail's surface works for Crossrail

Network Rail's upgrade of the existing rail network for Crossrail continues and is now 93 per cent complete. Over the Christmas and New Year period more than 4,000 workers carried out more than 330,000 hours of carefully planned work, which will ultimately integrate the new tunnels beneath London with the existing rail network. This was the biggest single engineering operation ever mounted by Network Rail for the Crossrail project. The work included a major signalling data change, new track installation and connections, overhead line installation and energisation, Driver CCTV installation and advanced work to support the station upgrades programme.

London Underground Christmas and New Year works

We completed significant upgrade work over the holiday period, as part of our record investment to modernise the Tube. The complex and intricate work saw our engineers:

- Install cabling on over 3.5km of track to support the new WiFi-based signalling system that enables trains to run closer together and gives shorter waiting times for customers on the Circle, District, Hammersmith & City and Metropolitan lines
- Replace three track junctions at Earl's Court, enabling trains to pass through more quickly
- Install two new, low vibration track junctions to connect the new Northern line extension tunnels to the existing Northern line at Kennington
- Complete track improvement work to make journeys smoother and more reliable
- Replace over 100 planks that support the rails on junctions around Wimbledon and Wimbledon Park stations to improve reliability
- Clear over 100 tonnes of scrap material and rotten vegetation from the trackside, helping maintain reliability and reducing future maintenance costs



Our tunnel boring machine broke through at Kennington

Northern line extension

The Northern line extension reached a major milestone in November when its tunnel boring machine, Amy, broke through at Kennington, completing the second of two 3.2km tunnels from Battersea Power Station via Nine Elms.

From their launch in the spring, Amy and her sister tunnelling machine Helen worked around the clock to create the north and southbound tunnels that will extend the Charing Cross branch of the Northern line to Battersea. Targeted for completion in 2020, it is our first major extension to a Tube line since the Jubilee line in the late 1990s.

Following the completion of this stage of works the cutter heads of both machines have been lifted by crane out of the shafts at Kennington while the rest of the machines have travelled back to Battersea to be dismantled and lifted out of the ground, part by part.

Work on the new stations at Battersea and Nine Elms is progressing well and services on the Northern line have continued uninterrupted while the work has taken place.

Modernising the Circle, District, Hammersmith & City and Metropolitan lines

The new signalling system on the Circle, District, Hammersmith & City and Metropolitan lines will provide our customers with more frequent trains and quicker journeys on 40 per cent of the Tube network. A massive boost in capacity during the busiest times will allow:

- 17,500 more customers an hour on the Circle and Hammersmith & City lines
- 10,000 more customers an hour on the District line
- 9,000 more customers an hour on the Metropolitan line

The works will also improve reliability and customer information and we are on course for full delivery by 2023.

In December, we successfully carried out the biggest test to date between Hammersmith and Edgware Road, which will be the first section of the Tube to go live with the new signalling system later this year.

Installation is progressing at six out of 14 signalling migration areas. We have completed 15 signal equipment rooms, ready for Thales to install the signalling equipment, with 18 more in progress. Track layout changes have been completed in 23 out of 29 areas.



New signalling is allowing us to run faster and more frequent trains

In October we began training our people for the new communication-based train control systems. We have also started training service control centre operators, signal maintenance and fleet maintenance staff. Eight S-stock trains were fitted with the automatic train control (ATC) system over November and December, bringing the total trains in London and in service to 55. We have completed the final stage of the 750V traction upgrade. Combined with the work undertaken on regenerative braking across the network, these changes support full train performance under ATC and an estimated £10m annual operational savings.

Paddington

The Bakerloo line link, which will provide step-free access to the new Paddington Crossrail station, is progressing to schedule. The steps and chains, floorplates and handrails of the two new escalators are complete. The lift installation is also complete and ready for testing. Work continues on cabling and the installation of wall panels.

Bakerloo line

We worked on two key junctions at Paddington and replaced over 100 metres of track at Queen's Park. At Paddington station we installed four new smoke doors and a back-of-house access as part of the project to provide the new link to the Crossrail station.

The Bakerloo line connects key mainline stations including Paddington, Marylebone and Charing Cross to the Underground with nearly 120 million journeys being made on the line in 2016/17. This work is part of our £2.3bn programme to modernise the Tube and improve customers' journeys.

Waterloo & City line telecommunications trial

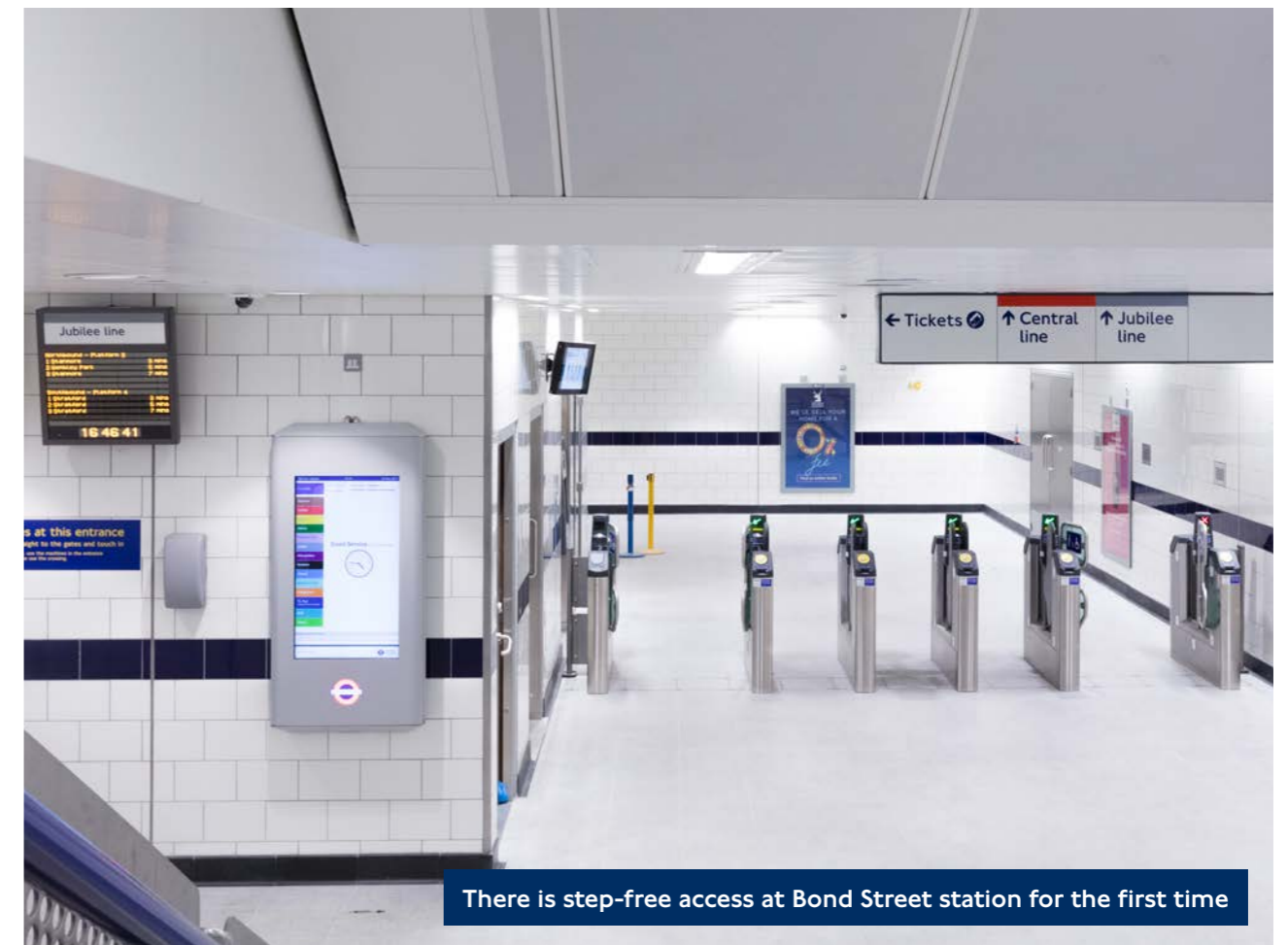
Following the successful trial of 4G mobile technology on the Waterloo & City line, we are tendering for a service provider to work with us to provide 4G across the Tube network, starting in 2019. The trial, which took place during engineering hours last summer, enabled uninterrupted data calls in the stations and tunnels on the Waterloo & City line.

Bank

We are continuing our work to improve capacity at Bank station. We have completed the piling for the new station basement box and started excavation. The tunnelling works are progressing well with the platform enlargement now 50 per cent complete and on schedule.

The new electrical switchrooms have been relocated and are now complete. This will enable the new Central line triple escalator to be built.

The fit-out of the new Waterloo & City line entrance within the Bloomberg building basement is now focused on finishes to lifts, columns and public



stairs, as well as floor tiling. We expect to complete the testing and commissioning of the new entrance by mid 2018.

The £607m Bank project will increase capacity by 45 per cent and greatly improve customer access, circulation and interchange. Work is due to be completed here by mid 2022.

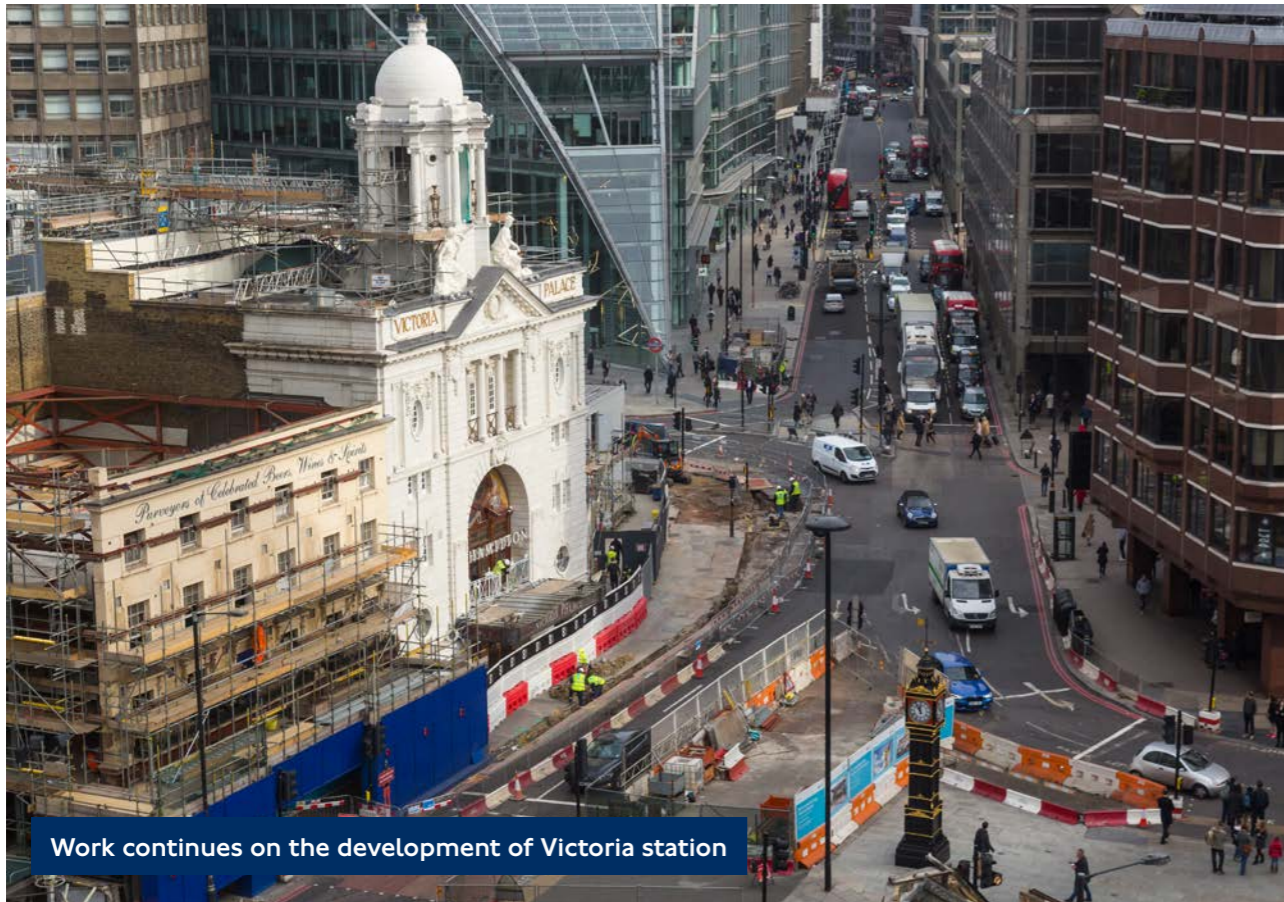
Bond Street

We have now opened the £300m upgrade of Bond Street station, one of the busiest stations in central London. We have increased capacity by 30 per cent following the opening of the new entrance and ticket hall on the north side of Oxford Street at Marylebone Lane.

The new entrance also provides step-free access for the first time at the station, making Bond Street the 72nd Tube station to become step-free and moving the Underground closer to the Mayor's target

for 40 per cent of the network to be step-free by 2022/23. Both ends of Oxford Street are now served by step-free stations following the installation of new lifts at Tottenham Court Road station last year. The four new lifts at Bond Street will make life easier for customers with accessibility needs, luggage or heavy shopping, ensuring they can access the Underground conveniently and safely.

Preparatory work on a step-free interchange to the Elizabeth line has also been completed in readiness for services calling at Bond Street station in December, when it is expected that passenger numbers will increase to around 225,000 per day. The Elizabeth line station will help ease crowding at Oxford Circus station, just 150m away.



Other benefits of the station upgrade at Bond Street Underground station include:

- A new, spacious ticket hall with five new ticket gates
- Two new escalators to make it easier to exit the station, which previously became congested at peak times
- Two new interchange tunnels to further ease congestion

Victoria

At Victoria station we are working on fire and communications systems, along with the mechanical, electrical and architectural fit-out in the remaining tunnels linking to the south ticket hall.

Work continues on the east and westbound link passages to the Circle and District line and associated lifts, existing station modifications, and the new south ticket hall escalators. We plan to open up the new station in stages,

ahead of completion in summer 2018. The extended south ticket hall and Wilton Road entrance are forecast to open in early 2018.

We also continue to rebuild the Duke of York public house, which was demolished to enable jet-grouting works for the pedestrian link tunnels, although the original façade has been retained. We are installing new structural steelworks, and the main contract works completion is planned for mid-2018.

Knightsbridge

We have begun our improvement works at Knightsbridge station on the Piccadilly line. These include two new station entrances and lifts to provide complete step-free access.

Two of the three existing station entrances will remain open while the improvements are made. The station entrance on the corner of Sloane Street and Brompton Road has closed. Once

work is complete it will become a retail unit. A new modern entrance will be built at 15 Brompton Road, opening to customers in 2019. Another new entrance will open in 2020 at Hooper's Court, providing two new lifts and making the station step-free from street to train. This will be just beyond the original 1906 station entrance, which still retains the ox blood façade. This step-free route will also re-open some areas of the station that were closed in the early 1930s when escalators were installed.

Knightsbridge Tube station sees over 19 million customer journeys each year. The new lifts will benefit our customers by providing step-free access to the Knightsbridge area, noted for tourist destinations such as Hyde Park and Harrods.

Camden Town

We have begun the refurbishment of the two escalators at Camden Town Underground station. These will be worked on one at a time to boost their safety and reliability, which is crucial to ensure the station can manage increasing customer demand as the area continues to develop.

Work on the first escalator is scheduled to finish in early March. The second will be refurbished later in the year.

With more than 30 million customers using the station each year, Camden Town is already one of the busiest interchanges on the Underground. The number of passengers using the station is expected to rise 40 per cent by 2021, and the original station – designed in 1907 – needs to be upgraded. In a public consultation, 95 per cent of the 1,700 respondents agreed that the station needs an upgrade.

Fares freeze

The Mayor has pledged to freeze all TfL fares until 2020. In line with this pledge, on 6 November, we had direction from him to implement a freeze from 2 January this year on all our bus and Tube fares and a freeze in fares on all other rail services in London where Tube fares apply. Our fare concessions are also protected.

Travelcard fares and the associated pay as you go caps increased from January 2018 in line with the 3.6 per cent annual increase in the Retail Prices Index in the benchmark month of July 2017. These increases reflect national government rail fares policy over which the Mayor has no control.

Rail

Night Overground launched

The new Night Overground service was launched on Friday 15 December offering 24-hour services on the East London line between Dalston Junction and New Cross Gate on Friday and Saturday nights, extending to Highbury & Islington later this year. All stations will be staffed while trains are running for passenger safety and security.

The Night Overground will help more people enjoy this diverse and buzzing area of east London, rich with museums, galleries, restaurants, bars and nightspots. It will also help shift workers in the service sector and emergency services, for instance, by providing safer journeys and reduced journey times.

The service connects with the Night Tube network at Canada Water on the Jubilee line and, from later this year, Highbury & Islington on the Victoria line.

London River Services Anniversary

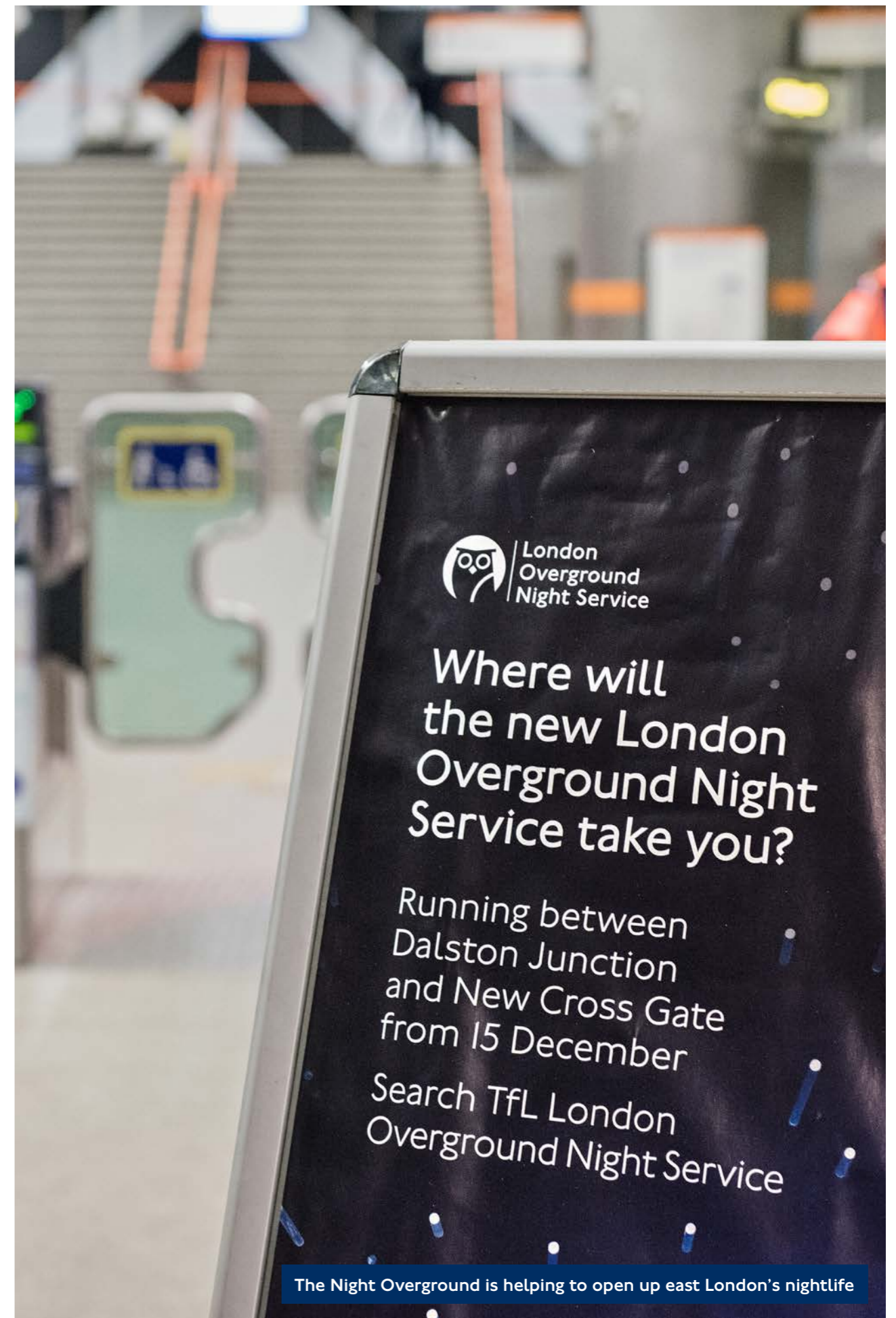
In December, London River Services celebrated 20 years of service. More than 10.6 million people use our eight piers every year and the passenger numbers are expected to double by 2035.

UITP International Taxi Seminar

On 7 and 8 December, we hosted the fourth edition of the UITP International Taxi Seminar in collaboration with the Urban Transport Group. Taxi experts from around the world shared their knowledge on a wide variety of issues from supporting, shaping and regulating the sector to greener and smarter solutions.

Uber London Ltd (ULL) hearing

On 13 October, ULL launched an appeal against our decision not to grant it a London PHV operator's licence at the expiry of its licence. A case management hearing took place on 19 December 2017 at which the LTDA and GMB both applied to participate in the appeal. The court has allowed both organisations to participate. The GMB is entitled to submit evidence in relation to the public safety issues it has raised, which includes driver's hours. The LTDA may be able to make submissions on the lawfulness of the operating model, and the court will consider what further involvement the LTDA will have in the appeal once all the evidence has been submitted. The appeal hearing will take place on 25 June 2018 for five days at Westminster Magistrates' Court.



5 New homes and jobs

Crossrail 2

A number of roundtable events have been held with industry and the regions in this last period to build awareness and support for the scheme. On 14 November a regional roundtable event was held in Basingstoke with Enterprise M3 Local Enterprise Partnership and London First to discuss the benefits Crossrail 2 will bring to the area. This has led to a number of other roundtables being proposed for 2018 including events in Hertfordshire, Woking and Epsom and East Surrey. A successful meeting was also held with London First about funding and financing opportunities, which the DfT also attended.

The inaugural Crossrail 2 Technical Planning Forum was held on 5 December. This brought together representatives of 15 boroughs along the route as well as colleagues from Network Rail and the DfT. With constituent local planning authorities, the Technical Planning Forum will discuss proposed powers for the construction and operation of Crossrail 2.

In the Chancellor's autumn Budget statement in November, he reiterated the Government's intention to continue working with us on the funding and financing of Crossrail 2. Additionally, in early December the Mayor and Secretary of State for Transport had a productive meeting at which both reasserted their commitment to Crossrail 2 and agreed to continue to work together to take this vital scheme forward. Work

continues with the DfT to ensure the scheme is affordable, with further value engineering and benchmarking under way. In addition we are working together to agree the terms of reference for the independent Funding and Finance review, which will begin shortly.

The Crossrail 2 Programme Board continues to meet monthly. At its most recent meeting the board was briefed on the new emerging programme plan of work, and updated on the Funding and Finance review and the status on safeguarding.

Engagement with SMEs

Small and medium-sized enterprises can help to reduce overall costs and bring new innovative ideas to support our goals. To get more value from this market, we worked with Bosch and Hack Partner in November to run two accelerator programmes in London with start-ups to develop new products and services.

Camden Town launch

In December we helped the Camden Collective celebrate the opening of its new workspace for start-ups and the creative industries. Situated in the Camden Auction Rooms, which are due to be demolished when we progress with our station upgrade, the Camden Collective exists to help innovative young companies. It is an excellent example of how we can make positive 'meanwhile' use of developable assets.



The Camden Collective is helping innovative young companies

6 Our people

Every Person Matters

On 12 November, our LGBT+ Staff Network Group (Outbound) got together to fly the Trans flag at 55 Broadway in support of Trans Awareness Week, helping to raise the visibility of transgender and gender non-conforming people and address community issues. The flag was raised by Graeme Craig, Director of Commercial Development and Sponsor of Outbound, and Staynton Brown, Director of Diversity and Inclusion.

Recent awards

Legal Team awards

In December, our Legal team was awarded the Legal 500 UK 2018 in-house team of the year in the field of transport.

European Diversity Awards

On 16 November, we won the Accenture Social Mobility Initiative of the Year at the European Diversity Awards, held at the Natural History Museum. We were recognised for 'Moving Forward', an initiative that enables people from all backgrounds to have equal opportunities for career advancement and success.

This initiative also focused on attracting more apprentices from schools in deprived areas. We are partnering with these schools to remove barriers into employment, particularly for young BAME boys and girls. In the past year we have held 146 school events promoting our apprenticeship opportunities and TfL as a career destination for young people. In 2017, this resulted in 21 per cent of

our overall hires coming from schools in more deprived areas, compared with 17 per cent in 2016.

In-house Recruitment Awards

The winning streak continued with our Smart Sourcing team who were recognised at the In-House Recruitment Awards in November, winning Best Diversity and Inclusion strategy, and Best Executive Search team.

National Rail Awards and British Construction Industry Awards

The modernisation of Tottenham Court Road station has received two prizes. It won the Major Project of the year at the National Rail Awards and was named Major Civil Engineering Project of the Year at the British Construction Industry Awards.

These wins recognise the work completed over the past seven years. The work has transformed one of our busiest stations, with the station remaining open while a new ticket hall, escalators and entrances were installed. It is also contributing to the regeneration of a major part of London and is a huge step in transforming the West End.

National Railway Heritage Awards

In the National Railway Heritage Awards, London Underground has been highly commended for its restoration of the former Metropolitan Railway signalling cabins at Chorleywood and Ruislip.



The Supplier Awards celebrated the companies that support our network

National Constructing Excellence Awards

Our project to increase the capacity of Bank station has won the Value Award at the National Constructing Excellence Awards. The project automatically went forward to the National Awards, having already taken the regional award in August.

Value was at the core of the project from the outset, through the use of innovative contractor engagement to select the best principal contractor (Dragados) and the supply chain. The team ensured all

relevant ideas proposed during bidding were rewarded, developed and implemented, and that all teams involved were actively engaged throughout the design process, leading to 'Best for Bank' solutions.

TfL Supplier Awards

On 15 November, in partnership with London Transport Museum, we held our first ever Supplier Awards, which recognised the contribution made by a range of companies to running and improving transport in the Capital.

This event recognised the organisations in our supply chain for their efforts, with more than 80 submissions for the eight awards. Congratulations to the following winners:

- Collaboration – Bam Nuttall
- Best health initiative – Costain and Skanska
- Best safety initiative – FM Conway
- Best environmental initiative – Ferrovial and Laing O’Rourke
- Best apprenticeship scheme – Thales (winner); Exterion Media (special recognition)
- Best scheme for increasing those underrepresented in the workplace – Siemens
- Best efficiencies and innovation – Siemens and Telent (joint winners)
- Best SME – Buzz Interactive

Siemens won the award for our Supplier of the Year, in recognition of its work to support women back into employment and developing the potential of those in the transport industry. The company has also been integral in delivering 36 trains per hour on the Victoria line.

Bus Priority Programme honoured

On 21 November, we won a Gold UK Bus Award for London’s Bus Priority Programme, ‘Making Buses a Better Choice’. This award recognises and rewards projects or innovations that add value to, or improve, the attractiveness of bus services. The judges were looking for developments that improve passenger facilities, create innovations or improve services through new infrastructure to provide faster and more reliable journeys. The judges praised the initiatives being taken by us to address bottlenecks and reduce bus journey times as congestion in London rises. They also noted the work being done in regeneration and growth areas to introduce bus priority measures from the outset, as the road infrastructure is being built, to help make buses the mode of choice for new residents and businesses.

Royal recognition

I am delighted to report that one of our employees, Michael Barratt, and one of our Board members, Ron Kalifa, were recognised in the Queen’s New Year’s Honours list.

Michael was awarded an MBE for services to transport in London, while Ron was awarded an OBE for services to the financial and technology sector. Congratulations to both on very well deserved awards.



Females in Transport Engineering (FiTE)

A sub-group of our Women’s Staff Network Group, FiTE was created in December to improve gender diversity across engineering. Started by women engineers, FiTE aims to provide a knowledge-sharing network offering mentoring, inspiration and career support for women in the engineering community, both internally and externally. A core objective will be to help us set an industry standard for diversity and inclusion in our engineering teams. In conjunction with the Year of Engineering 2018, FiTE will host multiple events not only to showcase the achievements of those who keep London moving but also inspire a new generation.

Skills London 2017

Apprentices from across our business joined our School Skills and Early Careers Recruitment teams at the ExCeL London for Skills London on 24 and 25 November. As the largest jobs and careers event in the UK for 15-24 year olds, it attracts more than 30,000 young people, parents and teachers. As always, our people were our greatest asset and we were recognised by the organisers as the ‘Most Engaging Team’ at the event, standing out among more than 200 organisations including the Army, HS2, NHS, Heathrow, Thales and Siemens.

7 Securing value

Carillion

We identified the potential failure of Carillion in summer 2017 and it has been part of ongoing monitoring and contingency planning since then. We have some exposure to Carillion but it is not significant and is being managed and there is no outstanding financial exposure to Carillion, with works being paid for in arrears.

We currently hold two existing contracts with Carillion. The main contract is for maintenance services on the London Overground, which was awarded at £80m in 2009. We also have a smaller contract to install low voltage cables, valued at £10k.

Our team is liaising closely with the staff delivering the London Overground contract and there are currently no significant issues. There are also contingency plans should anything arise. This contract ends soon and the procurement process for a replacement is almost complete, so the arrangements will be easily transitioned and we can speed it up if necessary. We also want to take care of the staff affected and will be transferring any staff who are eligible over to the new supplier once the contract has been awarded.

As well as our direct contracts, Arriva Rail London (ARL) has a contract with Carillion to provide cleaning and low-level maintenance services across some of our stations. While our direct contract

is with ARL, we have been monitoring the situation with them and there are similar contingency plans in place.

There will be other subcontracts within our supply chain involving Carillion, but we do not believe there is anything that will have any significant impact on us.

Carillion are also part of the A13 Direct, Build, Finance and Operate Joint Venture. It supplies financial administration and contract management staff, including the contract manager to the joint venture (JV). This will be managed by the JV and we do not anticipate any significant issues.

Carillion were one of three bidders for the Barking Riverside extension project. As part of the insolvency, they will be removed from the process with no impact on the schedule.

There are also some Crossrail contracts that were let to Carillion, but the work has finished so there will be no any significant issues, except possibly with guarantees and warranties. Carillion are Network Rail's contractor for some of the Crossrail surface works, but again most of this work has already been completed.

We are in regular contact with PwC, the special managers appointed by the Court to assist the Official Receiver. We are also in contact with the DfT and Cabinet Office, who are co-ordinating



Our Business Plan sets out how we will make London fairer, greener and healthier

information sharing with organisations such as Network Rail, Highways England, HS2 and Rail North.

We are discussing the position on apprentices with PwC to understand how many were involved within Carillion and to see whether there is an opportunity for some to be employed either elsewhere in our supply chain or with us directly.

Business Plan

On 5 December, our 2017 Business Plan was approved by our Finance Committee. It sets out how we will continue our investment programme in line with the Mayor's Transport Strategy, to make London a fairer, greener, healthier and more prosperous city, while continuing to meet our financial objective of turning a deficit into a net operating surplus. Over the next five years Londoners will see a range of improvements, including:

- Delivery of the Elizabeth line from December 2018, increasing rail capacity in central London by 10 per cent
- New signalling and increased train service on the Metropolitan, Circle, Hammersmith & City and District lines
- Continued modernisation of London Underground to provide increased capacity and accessible stations
- Procurement activity for new trains on the London Underground, Docklands Light Railway and London Overground networks
- £2.2bn investment in boroughs to help create more healthy streets and improve air quality
- Continued progress to deliver the greenest bus fleet in the world

- Transport improvements that directly support new homes and jobs, including the Northern line extension, the extension of the London Overground to Barking Riverside, and the Bakerloo line extension
- Development of 300 acres of land for housing and commercial space to help fund transport improvements

Reducing costs

As part of our cost reduction programme, we are on track to achieve £809m of savings by the end of 2017/18. This includes significant savings in our operating model.

Business areas are continuing to explore how we can modernise our organisation so we function more efficiently and effectively. In November, an additional 18 business areas launched formal consultations with our people and our trade unions on plans to change their structures and the way they work. As part of this phase we are reviewing the work of 6,000 roles in a variety of managerial, support and other non-frontline areas across our professional services, Surface Transport and London Underground.

In December, our new Customer, Communications and Technology Directorate went live with its new structure, saving £6.3m of annual operating costs. The new organisation

integrates all of our marketing, communications, behaviour change and external relations activities and outcomes. This was followed in January by the launch of our new City Planning Directorate, which brings together Planning in to one integrated team, saving £4.6m of annual operating costs.

We are doing all we can to mitigate redundancies and ensure we retain key talent during this period of change. This includes halting external recruitment for roles that may be suitable for those at risk of redundancy, reducing agency staff and redeploying staff across the business. A new process enables our people at risk of redundancy to apply for other roles in the organisation on a priority basis. This mitigates the requirement for voluntary severance and ensures we retain key skills.

Generating income

Cross-track advertising – DX3

In November, we launched our new DX3 advertising network. DX3 is a 4.5m by 2.4m digital cross-track display on the Tube. The screens show dynamic, full-motion content at 15 Tube stations in Zones 1 and 2. The launch was successful with greater initial take-up than we forecast, and brands such as Jaguar, LG and Gillette among the first to display content on DX3.

New underpass advertising screens

In December, we installed the second of our new underpass advertising screens on the A406 near Wembley. The screen, at the Abbey Road underpass, follows the installation of the screen at the Harrow Road underpass in August.

Elizabeth line launch partners

In December, we announced that the Elizabeth line will be launched with six advertising partners. We are offering the opportunity for 12 months of sector-exclusive advertising rights across the line's premium environment as well as the chance to work with us on marketing integration across the new railway.

