

Rail and Underground Panel

Date: 24 February 2016

Item: Managing Director's Report – Rail and Underground

This paper will be considered in public

1 Purpose

- 1.1 This paper comments on the performance of London Underground (LU) and London Rail (LR), and on the status of major investment projects and items of special interest, particularly in 2015/16 periods 6,7,8,9 and 10 (23 August 2015 to 9 January 2016).

2 Recommendation

- 2.1 The Panel is asked to note the report.

3 Summary

Customers

- 3.1 In Quarter 2 and Quarter 3 (Q3) of 2015/16 London Underground (LU) matched its best ever customer satisfaction score (CSS) of 85, first achieved in Q4 last year.

Delivery

- 3.2 Fleet availability issues on the Central and Piccadilly lines impacted LU performance in Periods 6 to 9. Period 10 was the best period on record and the first with under one million lost customer hours (LCH).
With industrial action excluded, LU has exceeded the Mayor's target of a 30 per cent reduction in delays by the end of 2015, cutting delays by nearly 38 per cent compared to the 2011 baseline.
- 3.3 London Overground (LO) recorded a good public performance measure (PPM) score of 94.2, doing better than target in Period 10.
- 3.4 In Periods 6 to 10, performance on TfL Rail continued to exceed the pre-takeover performance levels.
- 3.5 Following the strike in Period 8, Docklands Light Railway (DLR) performance bounced back, coming close to target in Period 9, and recording its best score of the year to date in Period 10.
- 3.6 Significant injury rates per million hours at the end of Period 10 continued to be better than target on both LU (0.18) and LR (0.11).

Value

Demand continuing to rise

- 3.7 Passenger demand continues to grow. On a calendar year to date comparison, LU passenger journeys to the end of Period 10 are up on last year by 37.6 million, or 3.7 per cent, excluding industrial action.
- Year to date demand for LO and DLR to the end of Period 10 is also higher, by 35 per cent and nine per cent respectively.

People

Transforming service

- 3.8 The modernisation of LU station service continues, with the new operating model making its debut at 23 stations on 7 February. By the end of Period 9, 4,020 members of staff had received the new customer service training, meeting the target for going live with the new service model. Mystery shopping continues to show an improvement, with staff helpfulness scores rising from 93 to 95 after transformation.
- By the end of Period 10, 247 stations out of 258 were operating without a ticket office, and 286 ticket offices out of 298 have closed.
- The remaining stations on the network are due to go live with the new operating model on 3 April 2016.

Rail prospectus

- 3.9 On 21 January the Mayor and Secretary of State announced proposals for the future of rail travel for London and the South East. The announcement was led by the launch of a joint TfL / DfT rail prospectus, which sets out our commitment to improving capacity and service levels across the region's rail network, ensuring that it is able to support the Capital's growing population and help drive the economy.
- The prospectus also proposes to transfer responsibility from the DfT to TfL for passenger rail services that operate mostly or wholly within the Greater London boundary, as and when current franchises fall due for renewal.

4 London Underground (LU)

LU safety

		2015/16 Period 10 YTD	Variance to target
Significant injuries per million hours (moving annual average - MAA)	Rate	0.18	-0.22 ▼
Operations lost time injuries (LTI)	Number	357	+15 ▲
Customer major injuries	Number	68	+11 ▲

- 4.1 LU safety performance, measured as significant injuries per million hours moving annual average (MAA), was better than target, and 50 better than last year.
- 4.2 LU Operations staff lost time injuries (LTI) are over target in the year to date by 15. However, they are significantly lower (approximately 10 per cent) than the number of LTIs at this stage in 2014/15. Trauma and workplace violence continue to be the main causes of operations LTIs. Work programmes are in place or being developed for each area of highest risk.
- 4.3 Customer major injuries on LU are over target in the year to date. The number of platform train interface (PTI) incidents continues to increase as a result of persons caught in doors, and falls between the platform and train following the introduction of new level access rolling stock (S stock). The LU Operations team is developing a three year plan aimed at reducing the risk of a life changing incident at the PTI. It includes improving the train operators' view through better camera design and positioning, and influencing where customers stand. There is a programme of additional mitigation measures including enhanced risk awareness campaigns, physical engineering improvements, and different methods of highlighting the PTI.

LU performance

		2015/16 Period 10 YTD	Variance to target	Variance to target excl. IA
Lost customer hours (LCH)	Millions	21.62	7.16 ▲	-0.51 ▼
Excess journey time (EJT)	Minutes	4.55	0.10 ▲	-0.21 ▼
Passenger journeys	Millions	1,038.8	2.91 ▲	13.18 ▲

- 4.4 LU performance to the end of Period 10 was affected by fleet availability issues on the Central and Piccadilly lines, which together accounted for 1.7m LCH. Excluding industrial action, LU's year to date service performance measured in LCH to Period 10 is on target at 13.94m, and its performance in Period 10 was on target at 0.8m. With industrial action excluded, EJT was 0.21 minutes better than target in the year to the end of Period 10.
- 4.5 There were 1,039 million passenger journeys on LU to the end of Period 10. On a calendar year to date comparison, this was 3.7 per cent more journeys to the end of Period 10 than last year, excluding industrial action.
- 4.6 LU's Quarter 3 Customer Satisfaction Survey (CSS) score was 85, matching its highest ever score achieved in Quarter 4 last year. The number of people saying they experienced a delay or disruption remains at a record low (four per cent).

Industrial relations

- 4.7 The last LU pay settlement ended on the 31 March 2015. LU opened discussions with the trades unions on this, inclusive of Night Tube. In May the trade unions announced a dispute, leading to industrial action in July / August. Discussions have taken place at ACAS over the past eight months to reach a resolution. LU made a revised offer to the trade unions in January.

LU investment

Bank

- 4.8 Work is beginning on the £563m modernisation of Bank station following the Department for Transport (DfT) granting the Transport and Works Act Order. Bank is the third busiest station on the Tube network and is used by more than 52 million passengers a year. Demand at this station has risen by 50 per cent over the past 10 years.

The work, which is due to complete in 2021, will transform the station, increasing its capacity by 40 per cent, improving accessibility and reducing interchange times.

Two new moving walkways, three new lifts and 12 new escalators will provide step-free access to the Northern line and Docklands Light Railway (DLR) platforms. The station will remain open during the work, minimising the impact to customers.

The redevelopment of Bank station will complement work already under way to create a new entrance and step-free access to the Waterloo & City line. Just metres away from Walbrook Square, the new entrance is part of the Bloomberg Place development. It will offer two new lifts, four new escalators and a new ticket hall when it is completed in 2017.

Finsbury Park

- 4.9 The modernisation of Finsbury Park station, one of the largest London interchanges outside Zone 1, has reached another milestone with the installation of three new gatelines and ticket machines.

The new gatelines will help control congestion. This modernisation work is part of a larger station upgrade which is on schedule to be completed in 2018.

This will include improvements to the station entrances, provision of step-free access to all platforms and better interchanges with National Rail.



Figure 1 - New gateline at Finsbury Park

Metropolitan line extension

- 4.10 TfL has taken over responsibility for the delivery of the Metropolitan line extension, from Croxley to Watford Junction, from Hertfordshire County Council (HCC).

Over 2,500 permanent jobs and a £2bn boost to the local economy will be created as two new fully accessible stations are built at Cassiobridge and Watford Vicarage Road. The existing Watford (Metropolitan line) station will close following the opening of the new stations, although it will be retained for use as sidings.

The main construction phase is planned to start in 2016, with a target to complete the link in late 2020.

Bakerloo line rolling stock

- 4.11 The project to refurbish Bakerloo line trains continues ahead of schedule. This crucial work will enable the current fleet to remain in service until it is replaced by the New Tube for London trains in 2026.

With the reopening of the previously disused workshop shed, work on the third train was completed two months early. We expect the project to continue at pace as staff gain experience with the intricate requirements of each train, enabling refurbishments to be completed in 2020.

Moorgate

- 4.12 The escalator providing interchange between the Northern line and Network Rail platforms at Moorgate has now re-opened. This follows the construction of a new passageway between the Northern line and the Crossrail Liverpool Street station, improving accessibility for customers.



Work on the Northern line link started in April 2014. It required particular skill and precision because of its close proximity to other underground utilities and structures at Moorgate. The six-metre diameter tunnel runs directly underneath the Circle, Hammersmith & City and Metropolitan lines and two operational escalators (1 and 2), and less than a metre below the Northern line's northbound tunnel.

Figure 2 - Northern line link works

A new lift shaft between the two platforms and two extra platform entrances are also being provided as part of a broader plan to modernise the station. This work, carried out in two phases, has involved closing escalators from the Northern line to the Network Rail platforms.

Through extensive planning, we eliminated the need to close the whole station and minimised disruption to passengers on the Northern line.

Fitting out the Northern line link will now continue in time for the December 2018 opening of the central section of Crossrail, when LU will become responsible for the five enlarged central stations: Bond Street, Tottenham Court Road, Farringdon, Liverpool Street and Whitechapel.

King's Cross and Paddington

- 4.13 We took advantage of the quieter Christmas period to carry out work at King's Cross and Paddington. This included renewing 314 metres of ballasted track at Paddington, replacing points at Hammersmith depot and major improvements to install a new crossover junction at King's Cross, which involved remodelling the signals between Great Portland Street and Farringdon.

These improvements will provide greater flexibility as trains will be able to reverse from both platforms at King's Cross, and will allow the speeds required for automatic train control which when delivered will allow us to run up to 32 trains an hour.

From 25 – 30 December 2015, over 40,000 hours were worked in total to deliver the most significant amount of renewal works ever completed over this period. All work sites were handed back on time.

Northern line extension

- 4.14 At the two new station sites at Battersea Power Station and Nine Elms, piling and retaining wall activities have begun in preparation for excavation of the two station boxes from mid-2016.

Significant changes to the proposed development above the new Tube station at Battersea, led by the Battersea Power Station Development Company, mean that the station design needs to be revised to ensure it can support their proposed new, more ambitious structures.

LU has commissioned an 800 metre conveyor for Battersea to carry spoil to Thames barges for transportation to a land reclamation site east of Tilbury. The Battersea conveyor will replace around 60,000 lorry trips through central London, reducing the impact on the local environment.

Due for completion in 2020, the twin tunnelled extension will run from Kennington to a terminus at Battersea Power Station via an intermediate station at Nine Elms. Its primary aim is to enable sustainable regeneration of the Vauxhall Nine Elms Battersea Opportunity Area, where there is potential to create up to 18,000 homes and 24,000 jobs, thus supporting economic growth in London and the wider UK economy.

Vauxhall

- 4.15 The modernisation of Vauxhall, an important interchange station, has reached a major milestone with the opening of the new gateline.

The old staggered 'Z' gateline reduced passenger flow and often resulted in bottlenecks during peak hours. The new straightened gateline has 10 gates, two more than previously, with two wider aisle gates. The gateline is also further from the escalators reducing congestion for passengers. To make room the ticket hall was widened.

The new lifts, refurbished subways and ticket hall will be completed by the end of this financial year. They will make Vauxhall fully accessible for the first time.

Tottenham Court Road

- 4.16 We have reached a milestone in the modernisation of Tottenham Court Road station, with Central line trains stopping there again, and the first of the new station entrances now open. The new 15-metre-tall glass entrance will give customers much easier access to the Northern and Central lines. It is next to the Centre Point building in what will become a new public plaza, and will be mirrored by a glass entrance in the same style facing towards Oxford Street.

The transformation of the station is due to be completed in 2016 and will feature three new entrances, a ticket hall five times larger than its original size, eight new escalators and five new lifts to provide step free access. Around 150,000 people currently use Tottenham Court Road station every day, and numbers are expected to rise to more than 200,000 when TfL-run Crossrail serves the station in 2018.



Figure 3 - Tottenham Court Road station entrance

Four Lines Modernisation

- 4.17 The 150th of the eventual 191 walkthrough air-conditioned S stock trains has now entered service on the Circle, District, Metropolitan and Hammersmith & City lines.

An S stock test train has successfully completed its first automatic operation under the control of the new Thales signalling system. This was the first time that the Thales Seltrac system has been applied to an S stock train, and was achieved in less than 100 days since the contract was awarded.

Caledonian Road

- 4.18 TfL planned to close Caledonian Road station temporarily to carry out essential engineering works to the two lifts that serve the station. The London Borough of Islington opposed the closure and TfL has agreed to review the decision in light of additional information, including points raised by Islington. This issue will be considered at a meeting of the Rail and Underground Executive in the spring.

Track tamping equipment

- 4.19 After almost 18 months of planning, two new bespoke machines have arrived for lifting and realigning track (tamping). The specially designed vehicles will be used to install modular points and crossings, which are factory-built offsite, requiring shorter closures and leading to more reliable installations.



The B45 Matisa machines, which will operate from the Ruislip depot, have been built to take into account the challenges posed by the network, and will be able to operate fully on both the majority of open sections of the LU network and on the sub-surface lines.

Fitted with video cameras and recorders to capture site conditions and events, and using the cleanest possible diesel engines, they will enable LU to replace points and crossings in half the time previously needed.

Figure 4 - B45 Tamping machine

Maintaining points and crossings

- 4.20 LU has developed a battery powered rail grinder that is reducing costs and is safer and more efficient. Petrol and diesel grinders used to restore rails at points and crossings to their optimal shape are bulky and difficult to transport to site using escalators and lifts. When no suitable grinder was available, LU often had to replace points and crossings instead of maintaining them. This new machine means points and crossings can now have their life extended, saving on costly replacements. Fuelled by battery power, it does not produce the emissions of its petrol and diesel counterparts, reducing the impact on the environment.

LU has applied to patent the grinder so that it is in a position to get the best price for manufacturing more when the current equipment has to be replaced and because points and crossings maintenance is a requirement elsewhere in the industry, the new grinder could be sold to other railway organisations and be a source of revenue.

London Rail (LR)

LR safety

		Period 10 YTD	YTD variance to target
Significant injuries per million hours (moving annual average - MAA)	Rate	0.11	-0.14 ▼
Operations lost time injuries (LTI)	Number	17	n/a
Customer major injuries	Number	6	n/a

- 4.21 LR safety performance measured in significant injuries per million hours continues to be better than target.
- 4.22 There were 17 LR staff injuries in the year to date, eight on LO and nine on DLR.
- 4.23 There were six major customer injuries on LR in the year to date, all on LO.

London Overground (LO) performance

		Period 10 YTD	YTD variance to target
Passenger journeys	Millions	141.6	12.8 ▲
Public performance measure (MAA)	Per cent	94.2	-0.3 ▼

- 4.24 By the end of Period 10, London Overground (LO) had carried 141.6 million people, which is 35 per cent (36.6 million) more than the corresponding periods in 2014/15, and 10 per cent more than budget.
- 4.25 LO's operational performance (including West Anglia), as measured by the public performance measure (PPM) moving annual average (MAA) was at 94.2 per cent at the end of Period 10. This is 0.3 worse than target. LO was in second place in the national PPM league for their of Period 10 performance. Significantly improved performance on the East London Line (ELL) in Period 10 played a part in this.
- 4.26 In Quarter 3, LO's CSS score was 83, one point better than target, but down from 84 in Quarter 2. Due to disruption and rising demand, customers reported fewer trains on time, more crowding and fewer seats.

Docklands Light Railway (DLR) performance

		Period 10 YTD	YTD variance to target	Variance to target excl. IA
Passenger journeys	Millions	89.8	-2.0 ▼	1.2 ▲
On time departures	Per cent	98.3	-0.7 ▼	0.1 ▲

- 4.27 Docklands Light Railway (DLR) performance was affected by a 48-hour strike on 3 and 4 November 2015. Excluding industrial action, DLR departures and service reliability performance for the year to date is 99.1 per cent, or 0.1 per cent better than target.
- 4.28 Passenger numbers in the year to date were 89.8 million, two million under budget but nine per cent higher than the same position last year.
- 4.29 DLR's CSS score in Quarter 3 is stable at 89, and has been bettered only once before, in Quarter 2 last year.

London Trams performance

		Period 10 YTD	YTD variance to target
Passenger journeys	Millions	20.7	-2.7 ▼
Percentage of scheduled kilometres operated	Per cent	99.0	1.0 ▲

- 4.30 Current year London Trams passenger journeys were 20.7 million, 12 per cent less than budget.
- 4.31 The year to date scheduled kilometres operated measure was 99.0 per cent, one per cent better than target.
- 4.32 The Quarter 3 CSS score for London Trams was 89, a dip of one point from Quarter 1 and Quarter 2, although still better than target. The scores for condition of the trams and service both decreased by one point.

Emirates Air Line (EAL) performance

		Period 10 YTD	YTD Variance to target
Passenger journeys	Millions	1.3	-0.1 ▼
Availability	Per cent	95.3	0.3 ▲

- 4.33 Year to date demand on EAL was 1.3 million passenger journeys. This is the same number as this time last year.
- 4.34 Full year availability is 95.3 per cent, which is 0.3 per cent better than target.
- 4.35 The Quarter 3 CSS score of 94 was an improvement from the preceding quarter, and only the second time this has been achieved.

LR investment

Increased capacity on London Overground

- 4.36 LR has successfully converted all three LO lines to five-car service ahead of schedule and on budget. Part of LO's capacity improvement programme (LOCIP), this project has boosted capacity on the East London line, the North and West London lines and the Euston to Watford line by 25 per cent, meaning an extra 170 passengers can now board each train. Since LOCIP began in March 2013, we have also extended 31 platforms, modified and strengthened electricity supplies, adjusted signalling, built additional stabling and significantly modified the



Figure 5- 5 car train

New Cross Gate and Willesden depots.

London Overground sidings

- 4.37 LO has commissioned new sidings near Wembley that can berth 12 of LO's five-car trains. The sidings are equipped for daily service, with a new control room and driver facilities, a new track layout, electrification, walkways and a new train wash.

Innovative signalling technology enables trains to enter and exit the sidings from the West Coast mainline. We can now convert more five-car trains and introduce them on the North London Line to provide greater capacity for our customers.

Old Oak Common

- 4.38 We have secured €4m funding from the European Commission (EC) to develop options for two new Overground stations in the Old Oak Common area. The funding was awarded from the EC's Connecting Europe facility within the framework of the Trans-European Transport Network scheme. It will be match-funded by TfL, enabling the further development of options for potential new stations at Old Oak Common Lane and Hythe Road.

Connections between High Speed 2 (HS2), Crossrail and LO are essential to the transformation of Old Oak Common and the regeneration of Park Royal, one of the Mayor's key Opportunity Areas, supporting 65,000 jobs and 25,500 new homes.

The new travel links should radically cut journey times to and from the area and give access to LO services between Stratford and Clapham Junction and Richmond. The stations would also provide an interchange with Crossrail and HS2, helping to minimise congestion at Euston station and further integrating these services into London's transport network.

Wimbledon line

- 4.39 LO is increasing London Trams services between Wimbledon and Croydon from eight to 12 trams an hour. To achieve this 50 per cent increase, the single track section between Beddington Lane and Mitcham Junction has been replaced with double track, and three of four new trams have been received. An additional platform has been built at Wimbledon and the new trams are being prepared for service.

Crossrail rolling stock

- 4.40 Production of the new Crossrail trains reached an important milestone with the completion of a test carriage at Bombardier's manufacturing plant in Derby. This first body shell is being used to refine the design and manufacturing techniques for full production of the 594 carriages needed for the 66 Crossrail trains.

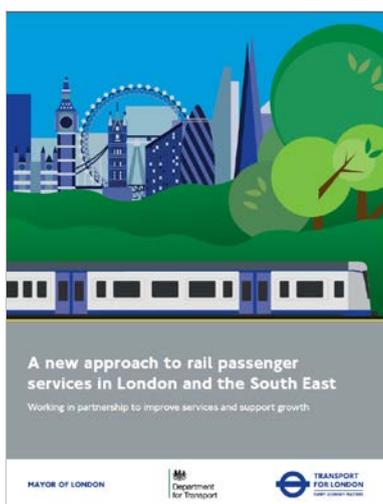
At more than 200 metres long, each train will be around the length of two football pitches or 18 New Routemaster buses. They will carry up to 1,500 passengers and help to relieve congestion on journeys between east and west London and beyond into Berkshire in the West and Essex in the East. The trains will have wide interconnecting gangways and three double doors on both sides of each carriage, providing high capacity plus quick boarding and alighting times.

Manor Park

- 4.41 As one of a number of improvements ahead of the new Crossrail services that will operate from 2019, a new customer information display is being tested at Manor Park. The integrated display system provides information about TfL Rail and network-wide travel along with details of disruptions to other transport services. We are also using the display to trial the use of live feeds such as TfL Twitter, BBC News and weather. The hardware and software for the display will be installed across the eastern (Shenfield to Liverpool Street) and western (Paddington to Reading and Heathrow) sections of Crossrail from 2017, providing better travel information for more customers.

Rail prospectus

- 4.42 On 21 January the Mayor and Secretary of State announced proposals for a new era of rail travel for London and the South East offering a future with better, more regular and more reliable train services. The announcement was led by the launch of a joint TfL / DfT rail prospectus, which sets out our commitment to improving capacity and service levels across the region's rail network, ensuring that it is able to support the Capital's growing population and help drive the economy.



The prospectus also proposes to transfer responsibility from the DfT to TfL for passenger rail services that operate mostly or wholly within the Greater London boundary, as and when current franchises fall due for renewal. An indicative timetable for the transfer of services could see TfL take over the South Western franchise in 2017, South Eastern from 2018 and services currently operating as part of Thameslink, Southern and Great Northern by 2021 (or later if the extension in the contract is exercised). The development of LO has showed what can be achieved by giving greater focus to these services. Safeguards will be established to

ensure all passengers – regardless of whether they live inside or outside London – benefit from these changes.

We are launching a period of engagement; an information session on these proposals will be organised in Parliament shortly, and we will also establish a mechanism for local authorities, Local Enterprise Partnerships and other bodies to have direct input to how passenger services are improved.

5 TfL Rail

TfL Rail safety

		Period 10 YTD	YTD variance to target
Staff lost time injuries (LTI) – over three days	Number	5	5 ▲
Customer major injuries	Number	3	-3 ▼

- 5.1 There were five LTIs, over three days lost, on TfL Rail in the year to date.
- 5.2 There were three customer major injuries on TfL Rail in the year to date.

TfL Rail performance

		Period 10 YTD	YTD Variance to target
Passenger journeys	Millions	28.9	5.9 ▲
Public performance measure (MAA)	Per cent	93.8	1.8 ▲

- 5.3 Year to date demand (from Period 3) on TfL Rail was 28.9 million passenger journeys.
- 5.4 The PPM performance in Period 10 continued above target. TfL Rail was in first place in the industry league table for the period.
- 5.5 The Quarter 3 CSS score for TfL Rail was 83. However, customers felt that the trains were more crowded than in Quarter 2 and that they were getting less value for their money.

6 Customers

Cash handling machines free up station staff

- 6.1 After a successful trial, new cash handling machines are being introduced at LU stations. These will help free up station staff to spend more time directly helping customers in ticket halls and on gatelines and platforms.

The cash handling machines have been trialled over the past 18 months at four stations: Acton, Hendon Central, Euston and Gloucester Road. Results clearly show they simplify day-to-day cash management and save time. Instead of counting money manually, staff deposit coins and notes into the machine, which quickly counts and sorts the money and prints a receipt. The new devices are part of the London Underground programme to modernise station operations.

Customers better connected

- 6.2 Since November, customers have been benefiting from ultrafast Virgin Media WiFi connectivity at 100 more LU stations, bringing the total to 250.

The service, launched in 2012, can reach speeds of more than 100Mbps. Around half a million phones, tablets and laptops connect each day. Virgin Media's data shows an average 20 terabytes (TB) of data are consumed daily on the LU WiFi network – a huge increase from 3TB a day, within the past 12 months.



Figure 6 - WiFi at stations

The service provides free travel information to anyone who connects, and includes live service updates and TfL's Journey Planner. Customers of Virgin Media and several other major mobile phone providers can also access the wider internet at no extra charge. It works throughout stations, in ticket halls, passageways and on platforms.

World Travel Market visitors supported during strike

- 6.3 During the two days of the DLR strike in November we eased disruption for people attending the World Travel Market at ExCeL by running a DLR shuttle service from Canning Town to Prince Regent. The shuttle enabled more than 80,000 passenger journeys over the two days, making a real difference and receiving very good feedback from customers. The Emirates Air Line also played an important part in helping visitors reach ExCel and reported its highest demand since October half term in 2012, with over 13,000 passenger journeys on each of the days.

The Cable Car and The Snowman and the Snowdog

- 6.4 Passengers travelling on the Emirates Air Line (EAL) were treated to a fun festive experience aimed at all ages. The Snowman and The Snowdog returned to the EAL cable car terminals, with special adaptations of the film playing in the cable car cabins.

Back on Track

- 6.5 People with mental health, social or psychological difficulties may find travel challenging because of feelings of anxiety, shyness, lack of confidence or confusion. Back on Track is a joint initiative between KeolisAmey Docklands and East London NHS Foundation Trust, supported by DLR, which aims to address these issues and get people out and about in east London, enjoying their environment and feeling part of their local community.

The initiative has involved training DLR staff to provide support and guidance to people on the DLR. Local health and social care staff will promote the initiative to patients as part of their rehabilitation and recovery, DLR Community Ambassadors can organise group trips and excursions to help people get used to travelling with the support of others around them.

7 People

Rail Operator of the Year

- 7.1 LU won Rail Operator of the Year ahead of national and local rail organisations at the National Transport Awards. LU received this prestigious award for its continuing commitment to making improvements while focusing on efficiency and driving down costs. The judges drew attention to enhancements in reliability that have shortened the average Tube journey by 13 per cent since 2002.

Held annually for the past 15 years, the awards are judged on improvements to customer experience and the nation's transport infrastructure. At LU these include continued improvements in reliability, the introduction of air-conditioned walk-through (S stock) trains to 40 per cent of the network, more accessible stations, being a world leader in contactless payments, more personalised information and online services, and the biggest investment programme in LU history.

The last time LU won Rail Operator of the Year was in 2013.

In addition, Cubic with TfL were awarded the Most Innovative Transport Project for bringing contactless payments to London. Bombardier won Transport Supplier of the Year for LU's S stock trains.

Tunnel relining wins innovation award

- 7.2 An effective method for relining a stretch of the Bond Street to Baker Street tunnel on the Jubilee line beat international competition to win a Bentley Award for Innovation in Rail and Transit.

The innovative approach, used for the first time in LU, enabled us to replace deteriorating precast concrete rings efficiently, reducing the project time and cost. In total we replaced 215 metres of tunnel lining with spheroidal graphite iron segments.

David Waboso named President of the Association for Project Management

- 7.3 David Waboso CBE, LU's Capital Programmes Director, was announced as the new President of the Association for Project Management (APM).

As president, he will lead the APM's commitment to provide industry-leading knowledge and resources, helping to improve project management across the country. With over 21,150 individual and 550 corporate members, the APM is the largest professional body of its kind in Europe.

Station designs of the future

- 7.4 The LU Station Design Idiom was recognised in the 2015 London Design Awards with a gold award for Proposed Architecture. The new design vision gives Londoners an insight into the future look and feel of Tube stations.

Developed with Studio Egret West, the LU Station Design Idiom ensures future stations build on the network's heritage and provide customers with welcoming, comfortable and straightforward journeys. It covers every aspect of station architecture and ambience from pavement to platform. Its set of nine design principles will be applied to every style of station and project, from small-scale repairs to major refurbishments and new stations.

The launch of the Station Design Idiom is part of Transported by Design, a programme of events and exhibitions led by TfL and the London Transport Museum to explore good design on the transport network and its role in the lives of the millions of customers who use it each day.

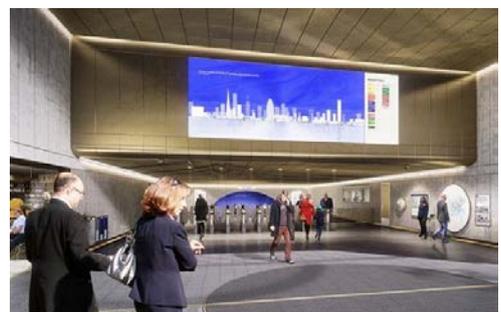


Figure 7 - Future station design example

NCE International Tunnelling Awards

- 7.5 LU won the Global Tunnelling Project of the Year (under \$500m) Award for the Bond Street station modernisation at the 2015 New Civil Engineer International Tunnelling and Underground Space Awards.



Figure 8 - Bond Street station

The annual awards, held in London, recognise excellence in international tunnelling and underground space projects. As part of TfL's multi-billion pound investment programme to improve and expand the transport network, the Bond Street project team is reconfiguring the station to provide 30 per cent more capacity.

The work will result in fewer delays, less congestion, step-free access and quicker journeys for customers in and out of the station. The new ticket hall, currently under construction beneath Marylebone Lane, will open in 2017.

LU was also successful in two other categories, winning Rehabilitation Project of the Year for the Bond Street to Baker Street Tunnel Relining Project, and Tunnel Operator of the Year for Sub Surface Lines Civil Maintenance.

National Railway Heritage Awards

- 7.6 The refurbishment of the roof at Farringdon station, originally dating from 1865, won Best Entry 2015 in the National Railway Heritage Awards. LU designed and installed a new integrated roof and drainage system, working collaboratively with Network Rail. The team installed a temporary crashdeck over the LU and Network Rail tracks to enable work to continue safely during closures, replacing and repairing steel components and installing new glazing. LU was also highly commended in the Urban Heritage category for works to reassess safe access to four heritage station roofs while making a significant improvement to station ambience.

London Trams recognised by Croydon Council

- 7.7 London Trams has been recognised by Croydon Council for its work on the Pearl Izumi cycle race in the town centre last year. A joint team from London Trams and Croydon's highways department won two of the council's most prestigious annual awards: One Team and Proud to serve: Going the extra mile. Developing a smooth covering for the cyclists to pass safely over the tram tracks was crucial. The team also collaborated on a joint promotion for the race and town centre closure.

Using technology to help vulnerable people

- 7.8 LU has teamed up with homeless charity Thames Reach to launch a new tool for staff to report people sleeping rough at stations. Frontline staff will be able to submit a form on their mobile devices, alerting Thames Reach to the location of the homeless person to ensure they are able to provide them with the care they need. Thames Reach helped more than 700 homeless and vulnerable people off the streets into homes or lodgings last year.

List of appendices to this report

Appendix 1 – Performance Charts

List of background papers

None

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London Rail and Underground

Period 10 2015/16 Performance

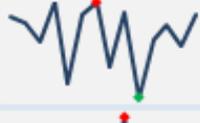
		Target	YTD Actual & Variance	Trend*
Service Reliability				
 London Underground	Excess Journey Time (minutes)	4.45	4.55 +0.1	
 London Overground	Public Performance Measure (MAA) (per cent)	94.5	94.2 -0.3	
 Docklands Light Railway	Scheduled departures operated (per cent)	99.0	98.3 -0.7	
 London Trams	Scheduled kilometres operated (per cent)	98.0	99.0 +1	
 Emirates Air Line	Availability (per cent)	95.0	95.3 +0.3	
 TFL Rail	Public Performance Measure (MAA) (per cent)	92.0	93.8 +1.8	
Safety Performance				
 London Underground	Significant injuries per million hours (MAA)	0.40	0.18 -0.22	
 London Rail		0.25	0.11 -0.14	
Customer Satisfaction (Overall Evaluation Score)				
 London Underground	Customer satisfaction survey: overall evaluation (score)	84	85 +1	
 London Overground		82	84 +2	
 Docklands Light Railway		88	89 +1	
 London Tramlink		88	90 +2	
 Emirates Air Line		93	93 +0	
 TFL Rail		80	83 +3	

*Trend is last 14 periods with the red point indicating worst periodic performance, and the green point indicating the best performance

London Rail and Underground

Period 10 2015/16 Performance

		YTD Target	YTD Actual & Variance	Trend*
Demand				
	London Underground	1,035.8	1038.8 +3	
	London Overground	128.8	141.6 +12.8	
	Docklands Light Railway	91.8	89.8 -2.0	
	London Trams	23.4	20.7 -2.7	
	Emirates Air Line	1.4	1.3 -0.1	
	TfL Rail	23.0	28.9 +5.9	
Passenger journeys (millions)				

Lost Customer Hours (000s)				
	Asset Performance	6,877	6,868 -10	
	Capital Programmes	806	678 -129	
	Operations (including industrial action)	6,773	14,071 +7298	
	Total (including industrial action)	14,457	21,616 +7159	
	Operations (excluding industrial action)	6,773	6,398 -375	
	Total (excluding industrial action)	14,457	13,943 -514	

*Trend is last 14 periods with the red point indicating worst periodic performance, and the green point indicating the best performance