

Agenda

Meeting: Safety, Sustainability and

Human Resources Panel

Date: Wednesday 10 July 2019

Time: 10.00am

Place: Conference Rooms 1 and 2,

Ground Floor, Palestra, 197

Blackfriars Road, London, SE1

8NJ

Members

Kay Carberry CBE (Chair)

Dr Nina Skorupska CBE (Vice-Chair)

Bronwen Handyside Dr Mee Ling Ng OBE Mark Phillips

Copies of the papers and any attachments are available on <u>tfl.gov.uk How We Are</u> Governed.

This meeting will be open to the public, except for where exempt information is being discussed as noted on the agenda. There is access for disabled people and induction loops are available. A guide for the press and public on attending and reporting meetings of local government bodies, including the use of film, photography, social media and other means is available on www.london.gov.uk/sites/default/files/Openness-in-Meetings.pdf.

Further Information

If you have questions, would like further information about the meeting or require special facilities please contact: James Varley, Secretariat Officer, 020 7983 4613; email: JamesVarley@TfL.gov.uk.

For media enquiries please contact the TfL Press Office; telephone: 0343 222 4141; email: PressOffice@tfl.gov.uk

Howard Carter, General Counsel Tuesday 2 July 2019

Agenda Safety, Sustainability and Human Resources Panel Wednesday 10 July 2019

1 Apologies for Absence and Chair's Announcements

2 Declarations of Interests

General Counsel

Members are reminded that any interests in a matter under discussion must be declared at the start of the meeting, or at the commencement of the item of business.

Members must not take part in any discussion or decision on such a matter and, depending on the nature of the interest, may be asked to leave the room during the discussion.

3 Minutes of the Meeting of the Panel held on 27 February 2019 (Pages 1 - 6)

General Counsel

The Panel is asked to approve the minutes of the meeting of the Panel held on 27 February 2019 and authorise the Chair to sign them.

4 Matters Arising and Actions List (Pages 7 - 12)

General Counsel

The Panel is asked to note the updated actions list.

Quarterly Health, Safety and Environment Performance Report (Pages 13 - 94)

Director of Health, Safety and Environment

The Panel is asked to note the report.

6 Workplace Violence Summit Update (Pages 95 - 96)

Director of Health, Safety and Environment

The Panel is asked to note the paper.

7 Responsible Procurement (Pages 97 - 110)

Chief Finance Officer

The Panel is asked to note the paper.

8 Energy Strategy Update (Pages 111 - 128)

Director of City Planning

The Panel is asked to note the paper.

9 Human Resources Quarterly Report (Pages 129 - 148)

Human Resources Director

The Panel is asked to note the report.

10 Employee Engagement Update (Pages 149 - 154)

Chief People Officer

The Panel is asked to note the paper.

11 Diversity and Inclusion Dashboard Update (Pages 155 - 162)

Director of Diversity, Inclusion and Talent

The Panel is asked to note the paper.

12 Health and Wellbeing Strategy (Pages 163 - 176)

Director of Diversity, Inclusion and Talent

The Panel is asked to note the paper.

13 Strategic Risk Update - SR02 Talent Attraction and Retention (Pages 177 - 180)

Chief People Officer

The Panel is asked to note the paper and the supplemental information on Part 2 of the agenda.

14 Transformation Update (Pages 181 - 182)

Transformation Director

The Panel is asked to note the paper.

Member suggestions for future agenda discussions (Pages 183 - 188)

General Counsel

The Panel is asked to note the forward programme and is invited to raise any suggestions for future discussion items for the forward programme, the Panel's induction and for informal briefings.

16 Any Other business the Chair Considers Urgent

The Chair will state the reason for urgency of any item taken.

17 Date of Next Meeting

Wednesday 4 September 2019 at 10.00am

18 Exclusion of Press and Public

The Panel is recommended to agree to exclude the press and public from the meeting, in accordance with paragraphs 1 and 2 of Schedule 12A to the Local Government Act 1972 (as amended), in order to consider the following items of business.

19 Strategic Risk Update - SR02 Talent Attraction and Retention - Exempt Information

Exempt supplementary information relating to the item on Part 1 of the agenda.



Transport for London

Minutes of the Safety, Sustainability and Human Resources Panel

Conference Rooms 1 and 2, Ground Floor, Palestra, 197 Blackfriars Road, London, SE1 8NJ 10.00am, Wednesday 27 February 2019

Members

Kay Carberry CBE (Chair)
Dr Nina Skorupska CBE (Vice Chair)

Bronwen Handyside Dr Mee Ling Ng Mark Phillips Val Shawcross CBE

In Attendance

Shirley Rodrigues Deputy Mayor for Environment and Energy

Executive Committee

Staynton Brown Director of Diversity, Inclusion and Talent

Howard Carter General Counsel

Andrew Pollins Transformation Director
Alex Williams Director, City Planning
Tricia Wright Chief People Officer

Present

Martin Brown Director of Health and Safety, Crossrail
Jill Collis Director of Health, Safety and Environment

James Ingram Principal City Planner

Nick Fairholme Director, Project and Programme Delivery,

Surface Transport

Jonathan Fox Director, Rail and Sponsored Services

Siwan Hayward Director of Compliance, Policing and On-street

Services

Patrice Locker Senior Risk Manager

Jane Leaker Head of Communications and Engagement,

Human Resources

Lilli Matson Director of Transport Strategy
Mike Shirbon Head of Integrated Assurance

James Varley Secretariat Officer

01/02/19 Apologies for Absence and Chair's Announcements

No apologies for absence had been received from Members. Nigel Holness and Gareth Powell were unable to attend and gave their apologies.

The Chair welcomed Mark Philips to his first meeting since being appointed to the Panel on 30 January 2019.

Safety is paramount to TfL and accordingly, at the start of all meetings attended by Board Members, they would be asked to raise any safety issues relating to items on the agenda or in general. Members confirmed there were no safety matters they wished to raise other than those to be discussed on the agenda.

02/02/19 Declarations of Interests

Members confirmed that their declarations of interests, as published on tfl.gov.uk, were up to date and there were no interests that related specifically to items on the agenda.

03/02/19 Minutes of the Meetings of the Safety, Sustainability and Human Resources Panel held on 5 December 2018

The minutes of the meeting were approved as a correct record and were signed by the Chair.

04/02/19 Matters Arising and Actions List

Howard Carter introduced the item. The site visit to Crossrail would be arranged shortly.

The Panel noted the actions list.

05/02/19 Quarterly Health, Safety and Environment Performance Reports

Jill Collis introduced the report, which provided an overview of health, safety and environmental performance for London Underground, TfL Rail, Surface Transport (including London Overground) and Crossrail for Quarter 3 2018/19 (16 September to 8 December 2018).

There had been a mixed performance in the quarter. On the road network, there had been two fatalities and the overall number of people killed or seriously injured had shown an increase. This highlighted the need for Vision Zero to be embedded as soon as possible. A Vision Zero summit had taken place at City Hall to inspire and encourage wider ownership of the programme across other bodies in London. Engagement had also taken place with TfL staff to ensure they understood how the programme applied to them. Future reports would include a status update on progress against targets for Vision Zero.

[Action: Jill Collis]

The period had seen an increase in cyclist fatalities. Members suggested a review of coroners' reports take place to understand if changes to the presentation and provision of information could help inform TfL's safety activities.

[Action: Jill Collis]

Bus collisions had shown an improving downward trend and the number of injuries on buses had also decreased. The introduction of the bus safety standard would help drive further improvements.

There has been an increase in the number of motorcyclists killed or seriously injured on London's roads. A workstream was in place with actions being taken to address the issue.

On London Underground, the injury rate was higher than the same quarter last year. The escalator safety programme was being rolled out again and a series of events to focus on the platform train interface (PTI) were taking place. Members would be given an update on the PTI work, including any impact on accessibility. [Action: Jill Collis]

Performance on London Rail remained good. Good progress was being made on addressing the recommendations of the Sandilands investigation and the creation of the Light Rail Safety Standards Board would enable recommendations not specific to TfL to be taken forward.

Workplace violence and aggression was 17 per cent lower than the same quarter last year, with 1,036 acts of violence against the workforce, of which 643 were reported to the British Transport Police. Work was continually taking place to create a safer environment for staff and a Summit on Tackling Workplace Violence and Aggression was being held on 19 March 2019. Members would be invited to attend.

[Action: Secretariat]

The long term trend in staff sickness had shown an increase in rates. A Health and Well Being Strategy was being developed and would be presented to the Panel at a future meeting. The Strategy would include work on the impact of mental health and look at comparisons with organisations of similar size as well as those going through organisational change.

[Action: Staynton Brown]

There were three outstanding actions against the audit of earth structures. Members expressed disappointment that the audit had not been closed sooner. The Audit and Assurance Committee would be updated.

Members noted the environmental performance, including reductions in traction and non-traction energy usage and requested future reports include more indicators and demonstrate linkages to the Mayor's Environment Strategy. [Action: Jill Collis]

The Panel noted the report.

06/02/19 Energy Strategy

Lilli Matson and James Ingram introduced the item, which provided an update on progress to date.

A significant amount of work was taking place in four areas – energy efficiency (traction and non-traction), low carbon energy generation, road transport electrification and low carbon energy procurement. The TfL Business Plan included provision to support the work streams to help align the strategy with the Mayor's Environment Strategy.

The London Underground upgrade programme provided an opportunity to increase efficiency in traction power.

A roof mapping exercise was underway to asses the potential for solar generation capacity and work had been completed on site to deliver the first tube waste heat recovery scheme at City Road.

Work was ongoing to look at delivery of a zero emissions bus fleet by 2037 and this was being incorporated into a wider commercial review.

The Mayor's Environment Strategy set out the ambition for a zero carbon railway by 2030. TfL was investigating procurement models, funding models and suppliers to help achieve this target.

The Panel welcomed the progress being made and stressed the need to understand and increase the momentum to ensure targets and milestones were met. It was also important to ensure that the low carbon agenda was embedded into the decision making process within TfL and that due consideration was given to it across the organisation.

The Panel noted the paper.

07/02/19 Road Danger Analysis

Alex Williams introduced the paper, which gave an overview of the number of people involved in fatal collisions, as reported by the police during 2018.

The Panel noted the paper.

08/02/19 Bus Driver Facility Improvements

Nick Fairholme introduced the paper, which provided an update on the programme.

Progress to date had been good with 42 routes scheduled to have a facility by July 2019. Engagement took place with local residents where new facilities were planned.

The Panel noted the report.

09/02/19 Human Resources Quarterly Report

Tricia Wright introduced the report, which provided an overview on key Human Resources led activities and statistics from Quarter 3 2018/19 (16 September to 18 December 2018).

Workforce representativeness was slightly below the target of 70.7 per cent at 69.9 per cent against a background of increased levels of declaration. Figures relating to the recent graduate and apprentice recruitment would be presented in the next report.

The impact of the Transformation programme was being monitored and a People Impact Assessment would be used to capture information including demographics, talent, skills and resource planning.

The figures showed that female leavers were overrepresented in Quarter 3. Members asked if there were any linkages to sexual harassment. The Panel would receive an update on the review of leaver interview information. [Action: Staynton Brown]

The disability roadmap had been launched and Members would be given an update on progress at the September 2019 meeting. [Action: Staynton Brown]

The Panel noted the report.

10/02/19 Improving Total Engagement

Tricia Wright and Jane Leaker introduced the paper, which provided an update on progress against actions relating to the Viewpoint Survey.

Work was underway to understand the factors driving the scores, which included reviewing the role of culture in engagement and the adoption of a 'hearts and minds' strategy. Metrics would be developed to measure and track progress.

Work would take place to assess the suitability of a 'Pulse' engagement pilot project as well as looking at the effectiveness of communications.

Champions were used to promote engagement activities; and these were drawn from more senior levels of staff.

Informal activities would be underpinned by the establishment of frameworks to avoid unintended discriminatory practices.

The Panel noted the report.

11/02/19 Transformation Programme Update

Andrew Pollins introduced the item, which provided an update on the programme.

Financial progress was good with cost savings tracking well against the Business Plan.

The launch of smart working pilots had seen a reduction in desk use of 30 per cent, which would have cost benefits and modernise work practices. The approach was being rolled out across TfL.

The Panel noted the paper.

12/02/19 Update on Strategic Risk – Achieving Safety Outcomes

Jill Collis and Patrice Locker introduced the item, which informed the Panel of work undertaken and planned to control risk through the Safety Management System.

In response to a request from the Panel, a review would be undertaken on the process by which legislation relating to safety was appraised. [Action: Jill Collis]

The Panel noted the paper and the supplementary information on Part 2 of the agenda.

13/02/19 Member Suggestions for Future Agenda Items

Howard Carter introduced the item. An update paper on the Energy Strategy would be added to the July 2019 agenda.

The Panel noted the forward plan.

14/02/19 Any Other Business the Chair Considers Urgent

There was no urgent business.

15/02/19 Date of Next Meeting

The next scheduled meeting of the Panel would be held on Wednesday 10 July 2019 at 10.00am.

16/02/19 Exclusion of the Press and Public

The Panel agreed to exclude the press and public from the meeting, in accordance with paragraph 3 of Schedule 12A to the Local Government Act 1972 (as amended), when it considered the exempt information in relation to the item on: Update on Strategic Risk – Achieving Safety Outcomes (SR1)

17/02/19 Close of Meeting

The meeting closed at 12.55pm.

Chair:	 	 	
Date:			

Agenda Item 4



Safety, Sustainability and Human Resources Panel

Date: 10 July 2019

Item: Actions List

This paper will be considered in public

1 Summary

1.1 This paper informs the Panel of progress against actions agreed at previous meetings.

2 Recommendation

2.1 The Panel is asked to note the Actions List.

List of appendices to this report:

Appendix 1: Actions List

List of Background Papers:

Minutes of previous meetings of the Panel

Contact Officer: Howard Carter, General Counsel

Number: 020 3054 7832

Email: HowardCarter@tfl.gov.uk



Safety, Sustainability and Human Resources Panel Actions List (reported to the meeting on 10 July 2019)

Actions from the meeting held on 27 February 2019

Minute No.	Description	Action By	Target Date	Status/note
05/02/19 (1)	Quarterly Health, Safety and Environment Report: Vision Zero Future reports to include a status update on Vision Zero	Jill Collis	10 July 2019	Vision Zero updates will be included in the Quarterly HSE Report.
05/02/19 (2)	Quarterly Health, Safety and Environment Report: Coroners' Reports Review Coroners' reports to understand if changes to presentation and provision of information could help inform TfL's activities.	Jill Collis	10 July 2019	A sample of coroners reports for London are being reviewed to see if changes to the presentation and provision of information may help inform TfL's activities. Coroners also issue prevention of future deaths reports to make recommendations to prevent reoccurrences, to which those who the recommendations are aimed at have to respond. We are reviewing all prevention of future death reports to determine if there are wider lessons TfL can learn.
05/02/19 (3)	Quarterly Health, Safety and Environment Report: PTI impact on accessibility An update to be provided on PTI work, including impact on accessibility.	Jill Collis	13 November 2019	On agenda forward plan.
05/02/19 (4)	Quarterly Health, Safety and Environment Report: Tackling workplace violence Invite Members to the Summit on Tackling	Secretariat	19 March 2019	Completed.

Minute No.	Description	Action By	Target Date	Status/note
	Workplace Violence.			
05/02/19 (5)	Quarterly Health, Safety and Environment Report: Health and Wellbeing Strategy Present the Health and Wellbeing Strategy to the Panel.	Staynton Brown	10 July 2019	On agenda for this meeting
05/02/19 (6)	Quarterly Health, Safety and Environment Report: Environmental Performance Future quarterly reports to include more environmental indicators and demonstrate linkages to the Mayor's Environment Strategy.	Jill Collis	4 September 2019	Further improvements are being made to improve monitoring of circular economy and waste data and will be included in the quarter 1 2019/20 report.
09/02/19 (1)	Human Resources Quarterly Report: Leaver interview information Members to receive an update on the review of leaver information.	Staynton Brown	4 September 2019	Update to be given at the September meeting.
09/02/19 (2)	Human Resources Quarterly Report: Disability roadmap Update Members on progress of the disability roadmap.	Staynton Brown	4 September 2019	On agenda forward plan.
12/02/19	Update on Strategic Risk – Achieving Safety Outcomes: Appraising legislation Review process by which legislation relating to safety was appraised.	Jill Collis	10 July 2019	A meeting took place with the ORR in spring 2019.

Outstanding actions from previous meetings.

Minute No.	Description	Action By	Target Date	Status/note
65/12/18 (1)	Quarterly Health, Safety and Environment Performance Reports – Crossrail: Station visits Members to be invited to visit Crossrail sites to see how safety was controlled as it transitioned to an operating railway.	Martin Brown	-	Invitation listing all dates for 2019 was sent to all Board Members.

[page left intentionally blank]

Agenda Item 5

Safety, Sustainability and Human Resources Panel



Date: 10 July 2019

Item: Quarterly Health, Safety and Environment Performance

Report

This paper will be considered in public

1 Purpose

- 1.1 This report provides an overview of the health, safety and environment (HSE) performance for London Underground (LU), TfL Rail, Surface Transport (including London Rail) and Crossrail.
- 1.2 Generally, this report covers 9 December 2018 31 March 2019 inclusive, referred to as Quarter 4.
- 2 Recommendation
- 2.1 The Panel is asked to note the report.

List of appendices to this report:

Appendix 1: Health, Safety and Environmental Performance – Quarter 4 – 2018/19

List of Background Papers:

None

Contact Officer: Jill Collis, Director of Health, Safety and Environment

Number: 020 3054 8158

Email: jill.collis@tube.tfl.gov.uk



Appendix 1



Transport for London Health, safety and environment report

Quarter 4 (9 December 2018 – 31 March 2019)



About Transport for London (TfL)

Part of the Greater London Authority family led by Mayor of London 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% 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 (LU), London Buses, the DLR, London Overground (LO), TfL Rail, London Trams, London River Services (LRS), London Dial-a-Ride, Victoria Coach Station (VCS), 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% 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 TfL 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 who 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.

Contents

4	Introduction
6	Business at a glance
8	Mayor's Transport Strategy themes in this report
10 10 11	Performance summary Scorecard Significant incidents
12 14 16 20 24 28 34 38 42 48 54	London's transport system will be safe and secure Customer injuries Underground Buses Rail Streets Other operations Workforce injuries Violence Construction Sickness, absence & wellbeing
58 60 67 68	London's streets will be clean and green Environment Regulatory investigation and enforcement update 91 Audit conclusions
70 72	More people will travel actively in London Healthy streets
74	Appendix: Sandilands investigation recommendations

Introduction

Performance in the final quarter of the year was mixed. Unfortunately there was one customer fatality on the London Underground network, as a result of a fall on the stairs at Monument station. The latest provisional road collision figures (October-December 2018) indicate that although the number of people killed or seriously injured on London's roads during 2018 has decreased by 16 per cent compared with the previous year, we are behind the trajectory needed to meet the Mayor's Vision Zero target of a 65 per cent reduction by 2022.

The number of people being killed or seriously injured in collisions involving a London bus has, however, reduced by an estimated 58.9 per cent from the 2005-09 baseline, and is ahead of the 2018 trajectory required to meet the Vision Zero target of a 70 percent reduction in the number of people killed or seriously injured involving a London bus by 2022.

Our work to deliver Vision Zero continues:

- We have completed work at 29 of the 73 most dangerous junctions, introducing mitigation measures to reduce road danger. Our initial review of the completed projects has found a 25 per cent decrease in collisions, on average, across all locations
- We have been fitting intelligent speed assistance to our buses to improve compliance with speed limits and in April around 700 buses had this control
- Our bus operators are using new technology, equipment and management practices to deliver improvements in safety performance; with a number of these being sponsored under our Bus Safety Innovation Fund

Overall, we are meeting our targets to reduce customer and workforce injuries:

- There were 4.7 per cent fewer customer injuries across our network this quarter
- Although the number of customer injuries on LU has increased by 8.8 per cent compared with the same quarter last year, there were reductions in all other operations; including I3.7 per cent fewer injuries to bus customers than in the same quarter last year
- There were I3 per cent fewer workforce injuries compared to the same quarter last year
- The overall trend of total TfL employee injuries continues to decline, with this year recording the lowest number of injuries over the past five years

We continued work to implement the recommendations from the Rail Accident Investigation Branch (RAIB) investigation into the over-turning of a tram at Sandilands Junction in 2016. To address recommendation 6, we have fitted a new higher specification film to all tram doors and windows to improve containment in the event of an incident.

During Q4, we completed delivery of the systems to support the ULEZ operation and continued our campaign to raise awareness of the ULEZ amongst Londoners and stakeholder groups. We successfully launched the scheme in central London on 8 April 2019.

Gareth Powell
Managing Director
Surface Transport

Nigel HolnessManaging Director
London Underground

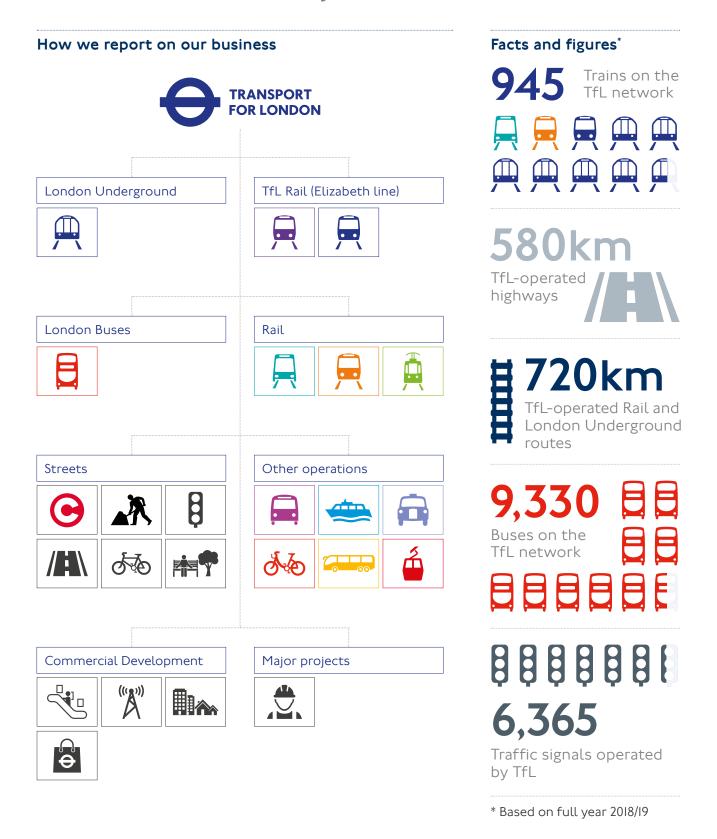
Stuart Harvey
Director
Major Projects

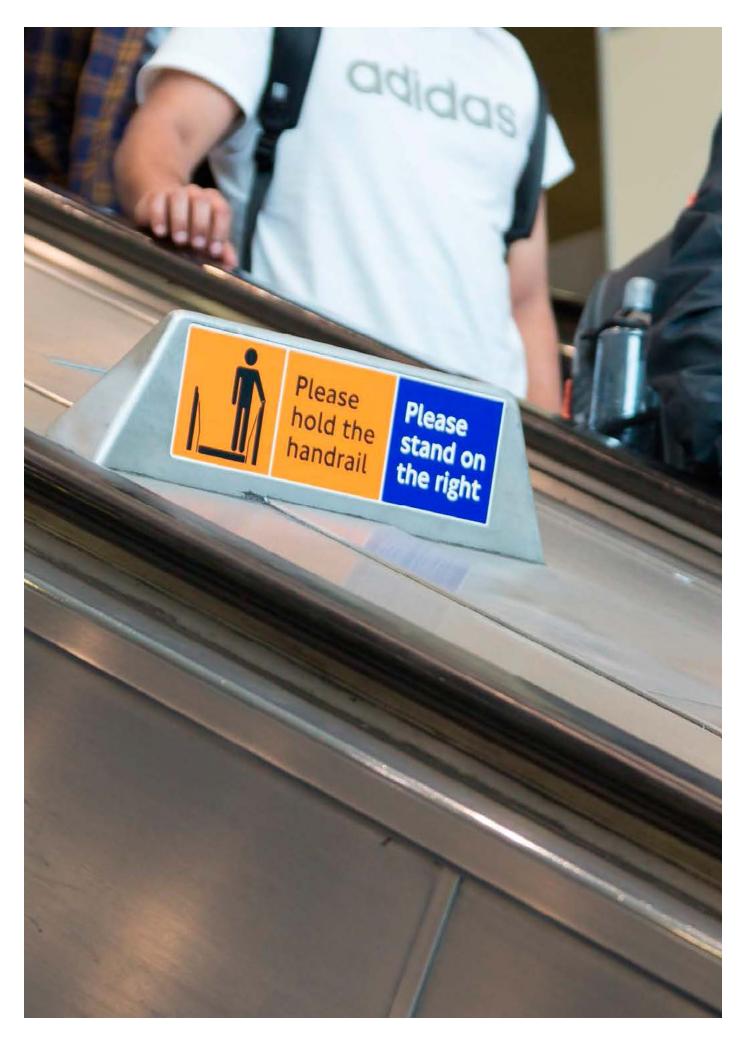
Jill Collis
Director
Heath, Safety and Environment

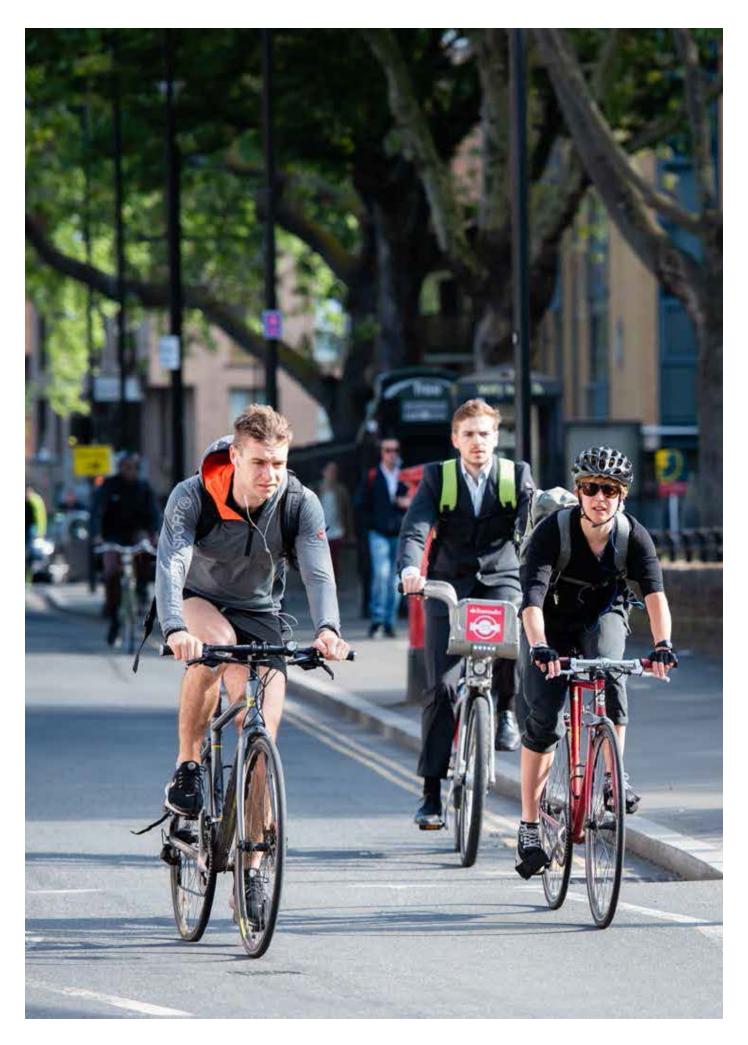


Business at a glance

Keeping London moving, working and growing to make life in our city better







Mayor's Transport strategy themes in this report

Our role is to deliver the Mayor's Transport Strategy in partnership with London's boroughs, businesses, local communities, consumer organisations and many others. The ambitious plan will increase the attractiveness of public transport and make cycling and walking easier and more convenient options.

We are providing more trains on our busiest services, and investing in

upgrades and step-free access schemes. We are making local streets healthier and more pleasant places. Listening to, and acting on, the suggestions of our customers enables us to make walking, cycling and public transport the first choice for the vast majority of trips. And we will continue to improve services to unlock the new jobs and housing our city needs.

This report looks at our performance in relation to the following themes from the Mayor's Transport Strategy:

Healthy Streets and healthy people



Scorecard measures

We use a scorecard to measure our performance against the Mayor's Transport Strategy. In this report, the scorecard measures are marked like this.



Performance summary

Scorecard

Measures		Quarter 4		Full Year	
		Actuals	Target	Actuals	Target
London's transport system	Reduction in people killed or seriously injured	35.8%	44.4%	36.5%	45.4%
will be safe and secure	Reduction in people killed or seriously injured involving buses	58.6%	49.2%	58.9%	55.6%
	Injuries on public transport network	3,124	3,417	11,279	11,683
London's streets will be clean and green	Number of London buses Euro VI compliant	950	n/a	6,950	6,050
More people will travel actively	Healthy Streets Assessment	n/a	n/a	11%	10%

Significant incidents

Significant incidents are incidents that result in:

- A fatality, or
- Three or more people needing hospital treatment, or
- · A loss of more than £Im

This quarter

There were 34 significant incidents across London's road and public transport networks this quarter, 32 of which were fatalities:

- On LU, there was one fatality following a customer falling on the stairs at Monument station
- Two pedestrians were fatally injured in collisions with a bus on routes:
 - o 185 on Vauxhall Bridge Road, Victoria
 - o 274 on Camden Road, Camden
- A further 29 people were killed on London's roads (provisional data for the time covered by the report, subject to change):
 - o Sixteen pedestrians
 - o Seven car drivers
 - o Four motorcyclists
 - o Two cyclists.

Police and Regulator investigations are underway for these incidents. Nine historic incidents were concluded by the Coroner during this quarter. Causes of death were recorded as five suicides. A narrative verdict was given in respect of two deaths and an open verdict was recorded in respect of two deaths.

Other significant incidents arising from our public transport activities are as follows:

- A route 265 bus, performing an emergency stop trying to avoid a collision with a car which resulted in three customers taken to hospital as a precaution with a further seven treated at the scene
- A route 196 bus was involved in a collision with a car which resulted in three passengers taken to the hospital: one with minor head injury, one with a fractured left arm and one with chest and leg pain

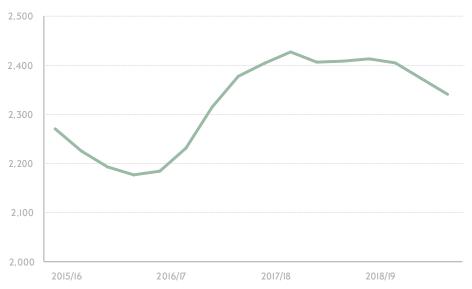




London's transport system will be safe

Customer injuries

Moving annual average



Across our public transport network, a total of 2,600 customers were injured in Q4; this is 4.7 per cent fewer than the same quarter last year. Buses experienced the biggest improvement, with I3.7 per cent fewer injuries reported compared to the same quarter last year. London Underground customer injury numbers saw an increase of 8.8 per cent compared to the same quarter last year.

Provisional data indicates there were 8,122 injuries on London roads.

RIDDORs

There were six customer injuries that required reporting to our regulators this quarter.

Five injuries related to LU, of which three ■DaR were a result of falls and two as a result of contact with train doors. All five incidents required hospitalisation for treatment. This is a 67 per cent reduction compared with the same quarter in 2017/18.

Dial-a-Ride (DaR) reported one RIDDOR this quarter, where a customer trying to board a vehicle lost her footing and fell. No RIDDORs were reported by DaR for the same quarter last year.

Number of injuries per million passenger journeys on the Tube network

(5% ▲ against Q4 2017/18)

Number of injuries per million passenger journeys on the bus network this quarter*

(I5% ▼ against Q4 20I7/I8)

Number of injuries per million passenger journeys within our rail operations this quarter (I5% ▼against Q4 20I7/I8)

Number of iniuries per million passenger journeys within our other operations this quarter (24.2% ▼ against Q4 2017/18)

* Injuries to members of the public who are not bus customers are included in the Killed or Seriously Injured (KSI) figures within the streets section

■LU



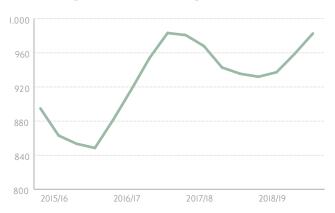
Underground A

Customer injuries

Past five quarters*



Moving annual average



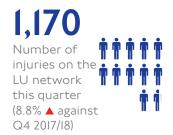
Top causes of injury (%)

Slips, trips and falls	89
Hit by doors, gates or other objects	9
Other	2

There was one fatality following a customer falling on the stairs at Monument station. Slips, trips and falls remain the biggest cause of injury on London Underground and five per cent of these are major injuries. Customer injuries increased by 8.8 per cent compared with the same quarter last year. We have encouraged greater incident reporting. Our safety plans involve posting staff at key slip, trip and fall locations and this has led to recording incidents not previously captured.

We have extended our 'Escalator Excellence' programme to all stations and 'Stair Excellence' was rolled out at 36 stations to improve management of this risk. These programmes set the standard for good safety management practices.

These local initiatives have the same criteria: excellent public announcements, eg specific announcements about risks on stairs or escalators, posters in suitable locations highlighting the risks of slipping on the stairs or escalators during wet or icy weather; and encouraging our staff to help more vulnerable customers to reduce the likelihood of accidents.



^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).



Seven of our eight planned improvements were completed and significant progress has been made with the remaining action.

To reduce injuries on escalators and stairs

- Roll out Escalator Excellence to stations outside the top 30 locations for incidents and review of the customer safety plans for the top 20 stations for Escalator Excellence We have extended and rolled out the Escalator Excellence awards to all stations with escalators on LU. The focus remains on the top 20 stations to ensure standards are implemented and maintained
- Review signage at the top 20 stations for escalator incidents to encourage vulnerable and restricted mobility customers to use the lifts
 We reviewed signage at the top 20 stations, including introducing larger signs to encourage customers to use the lifts and we plan a more detailed review to extend this at Waterloo and London Bridge where there are a larger number of injuries
- Review of the impact of Stair Excellence and development of a further rollout plan Stair Excellence work has continued and we have rolled it out at 36 stations. We will cover all the remaining stations in QI
- Installation of high impact vinyl signage with customer safety messages at four stations We installed high impact vinyl signage with customer safety messages at Baker Street, Leicester Square, Liverpool Street and Embankment, reminding customers to hold the handrail. We continued over Christmas and into the New Year the customer campaigns focused on alcohol that we launched in Q3

 Installation of blue footprints on escalators

The trial of blue footprints on escalators resulted in a reduction in incidents at locations where these visuals were trialled. These will be rolled out to other locations and to retain the effectiveness of the visuals, a cyclical mainenance process has also been implemented

To reduce injuries during boarding and alighting

- Platform train interface (PTI) focus days at PTI hotspots
 - The PTI project continues to keep the focus on boarding, alighting and falls down the gap to prevent customer injuries. Actions in Q4 include continuing the PTI awareness days focusing on customer behaviour and looking after your assets
- Trial of selective door opening at Baker Street to prevent customers using a set of doors where the gap between the train and platform is largest The trial concluded that this had no
 - significant impact on reducing falls down the gap. The feasibility study into a device ('an active gap filler') that extends from the platform to reduce the gap between the train and platform was completed and this is now being investigated further to identify and trial a suitable device
- Continued delivery of our platform camera improvements project and onsite improvements at three platforms
 We made improvements at Green Park (platforms I & 2). Detailed designs and site work are underway at King's Cross, Holborn and Leytonstone. We reviewed

all benchmark images (the picture the train operator sees of the PTI when in the cab) to improve image quality and identify best practices

• Installation of under platform flashing blue lights at Baker Street platforms I & 2 Following the trial of blue flashing lights to alert passengers to the gap between the train and the platform; specialist electronic design resource is being sourced to undertake the detailed design. Installation will commence at platform 2 at Farringdon and platforms I and 2 at Baker Street at the end of 2019. We also completed the trial of announcements after 8pm at Baker Street, including associated noise monitoring. We have reviewed the findings in conjunction with Westminster City Council and have agreed to extend the trial.

Our plans for next quarter

Continue Escalator Excellence to ensure standards are maintained

Roll out Stairs Excellence at all remaining stations

Trial formats for safety posters to define best practice, starting at London Bridge

Introduce PTI Excellence at top 10 stations for PTI incidents

Implement a comprehensive communications plan for 2019/20 starting with 'injury free week' and continuing PTI focus days

Develop a trial at Baker Street of a device which extends from the platform to reduce the gap between the train and platform

Continue delivery of our platform camera improvement project and complete onsite improvements at a further two platforms

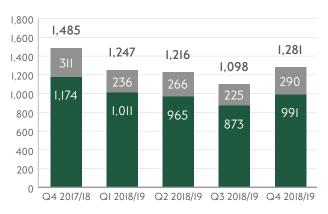
Progress the installation of under platform flashing blue lights to highlight the gap between the train and platform at locations with larger gaps

Continue our injury free week campaigns improvements at a further two platforms

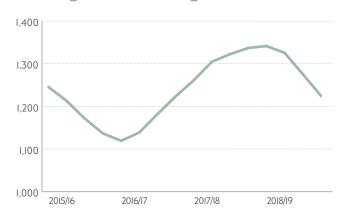


Customer injuries

Past five quarters*



Moving annual average



■ Minor ■ Major

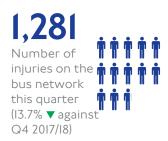
 * Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

Top causes of injury (%)

Slips, trips and falls	63
Struck by / against object	13
Trapped fingers / limbs	8
Collision	5

There were I3.7 per cent fewer customer injuries on buses compared with the same quarter last year. Twenty-three per cent were classed as major as they required hospital treatment. Slips, trips and falls remain the biggest cause of bus customer injuries, with the majority happening in bus aisles, with sudden bus movement being the key contributory factor.

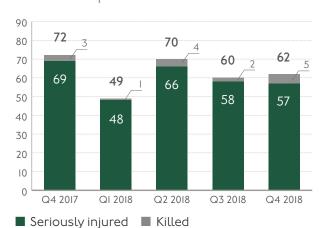
There were customer safety campaigns in all bus operator depots throughout December and January, resulting in a I2 per cent reduction in injuries compared with same quarter last year. The campaigns covered driver's hazard perception, understanding blind-spots, to allow time for customers to board/alight and take a seat, promoting safe travel in schools, and sharing learning from incidents across depots.



۲۵٦

People killed or seriously injured

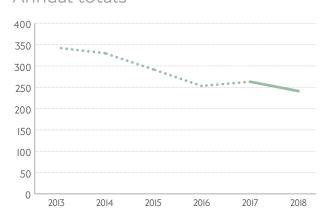
Past five quarters*



* Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

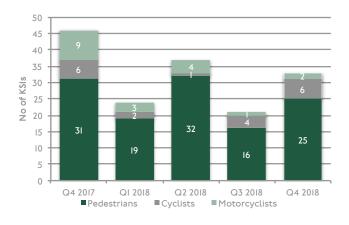
Provisional figures for 2018 show that 241 people were killed or seriously injured (KSI) in collisions involving a London bus. This is an estimated 58.9 per reduction from the 2005-09 baseline and ahead of the 2018 target needed to meet the Mayor's Vision Zero objective of a 70 percent reduction in people killed or seriously injured involving a London bus by 2022.

Annual totals**



Provisional figures show that 62 people were killed or seriously injured in collisions involving a London bus during Q4 of 2018. This is a 14 per cent reduction compared to Q4 of 2017.

Past five quarters - vulnerable road users



In Q4 there were 33 vulnerable road users killed or seriously injured in collisions involving buses, a 26 per cent improvement from last year.

Pedestrians continue to make up the largest proportion of those hurt, accounting 76 per cent. Incidents involving motorcyclists improved with only two reported in Q4 compared to nine in the same quarter last year.

^{**} Figures from the end of 2016 have been reported using a new system (COPA). The dotted line in the graph for calendar years 2013–16 denotes back-estimated figures following analysis undertaken with the Transport Research Laboratory to indicate how many collisions would have been reported under this system in previous years. These figures are provisional and subject to change as a result police collision reporting.

Four of the five planned improvements were completed and significant progress has been made with the remaining action.

Follow up on actions arising from the safety campaign in Croydon

Our campaign in Q3 highlighted the need for a pedestrian crossing behind the West Croydon Tram stop. In Q4 discussions began with the local council, including exploring the suitability of adding a safety announcement on the Tram to alert customers to the dangers of crossing in traffic

- Hold a safety campaign day in February 2019 led by Arriva
 - Arriva ran a campaign in Brixton. More than 50 bus officials from five operators took part in a collaborative day with TfL staff in attendance
- Extension of the bus operator HSE maturity assessment to include environment and engineering elements Our bus operator assurance arrangements continue to focus on ensuring that the key day to day management activities that support good HSE performance are in place. This approach has helped to contribute to the improved performance we have seen across our bus network. Work to extend the criteria to include engineering and environmental aspects is underway but has been rescheduled for Q2 to allow for any actions arising from a planned audit of the process to be considered

- Customer safety campaign at bus depots by all major operators
 - There were campaigns in all bus operator depots in December and January. As a result, injury reports reduced by 12 per cent compared with the previous equivalent quarter
- Bus safety innovation challenge to provide bus operators with an opportunity to test new technologies Bus operators continue to use new technology, equipment and management practices to deliver improvements in safety performance. A number of the initiatives are sponsored under our Bus Safety Innovation Challenge and planning for the next tranche was completed in Q4, for launch in QI 2019/20:
 - Abellio successfully tested the Mobileye camera system on 66 buses and three routes. Mobileye alerts drivers to lane departure, pedestrian proximity, potential collisions and late braking.
 - RATP tested alternative fatigue management systems

Other highlights

- Arriva reports a I4.5 per cent reduction in total incidents by year end, largely due to choosing route champions within its depots to engender a sense of ownership over quality driving. Additionally, Arriva's Hazard Perception roadshow has been training drivers to use new blind spot mirrors, leading to a 3I per cent reduction in passenger injuries in the past quarter
- Go Ahead has put I,200 drivers through an adapted Institute of Advanced Motorists course, to build their quality and safety driving techniques
- Stagecoach has commissioned a Safety Strategy Committee to review major incidents. The forum includes staff, operations and engineering staff at all levels
- Following Metroline's new campaign based on taking greater care with boarding passengers, the average number of customer injuries per period dropped I2 per cent against Q3 and I9 per cent against the QI-Q3 average
- To further enhance the investigation of significant incidents across the bus network, we have issued revised guidelines to bus operators, covering the scope of investigations and required timescales for completion

Our plans for next quarter

Bus driver safety 'Destination Zero' training to be launched

Award of the next tranche of Bus Safety Innovation Challenge projects to bus operators

The total number of buses enabled with Intelligent Speed Assistance technology will reach over 800

Commence development of the 'Urban Bus Sound' as part of the Acoustic Vehicle Alerting System for quiet running buses will commence (Bus Safety Standard)

Identification of the correct placement of Blind Spot Mirrors ahead of commencing the retrofit programme in $\mathbb{Q}2$





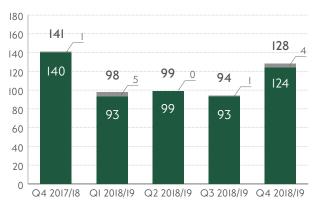




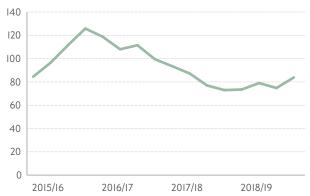


Customer injuries

Past five quarters*







Injuries by mode

London Overground	58
DLR	25
TfL Rail	38
Trams	7

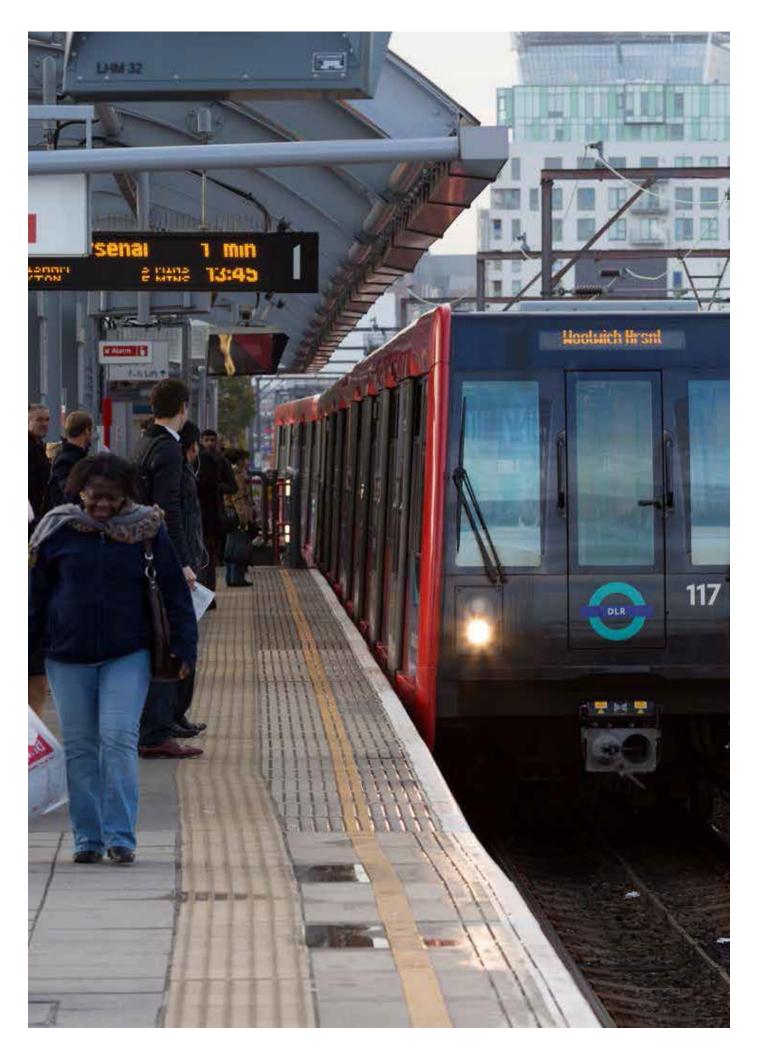
Number of injuries on our rail network this quarter (9% ▼ against Q4 2017/18)

There were nine per cent fewer Rail customer injuries compared to Q4 last year, with a significant improvement on DLR services around slip, trip and fall incidents. Two safety-related initiatives helped: a poster and a public announcement campaign warning passengers moving around stations of the hazards associated with adverse weather, for example, to take care on damp and/or slippery surfaces. Introducing and fitting red comb plates at the top and bottom of escalators following a similar initiative on London Underground has reduced the number of falls on escalators.

We continued to implement the recommendations from the Rail Accident Investigation Branch investigation into the overturning of a tram at Sandilands Junction in 2016 and have completed the most vital. We have fitted a new, higher specification film to all tram doors and windows and are working hard to complete all of the recommendations. We have helped to set up the new Light Rail Safety and Standards Board, which now has confirmed Government funding. TfL is represented on the board.

[■] Minor ■ Major

^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).



Five of our six planned improvements were completed and significant progress has been made with the remaining action.

Trams

 Review of the London Trams Safety Management System to improve alignment with our operator's system We began the review and will continue into QI

Work has been ongoing to review the actions that resulted from the In-town Tram Crossing Risk Assessments. Crossing location visits have taken place to scope out works and a plan is in place for these to be carried out

 Start installation of the higher specification film to tram doors and windows

Work continued to implement the recommendations from the Rail Accident Investigation Branch (RAIB) investigation into the over-turning of a tram at Sandilands Junction in 2016. To address recommendation 6, a new higher specification film has been fitted to all tram doors and windows to improve containment in the event of an incident

 Start an annual review of the risk matrix During Q4 we worked collaboratively with Tram Operations Limited (TOL) to carry out the annual review of the Joint Safety Risk Model. The model has been updated with the most recent cross industry safety data and the updated report will be issued in QI

Overground

- For the principal safety stakeholders to collectively review performance, monitor trends and risks and initiate improvement actions
 - Assurance meeting has been introduced to bring together HSE representatives from all key Overground stakeholders. It reviews safety performance and initiatives, and promotes collaborative working and the sharing of best practice. Initial meetings have been a success with parties openly discussing HSE issues and working together to seek solutions
- An HSE assurance board to bring together HSE representatives from all key Overground stakeholders The board has been introduced to discuss safety performance and initiatives, and promote collaborative working and the sharing of best practice. Initial meetings

have been a success with parties openly

discussing HSE issues and working

together to seek solutions

DLR

· Continue use of the RSSB PTI tool to assess the PTI risk across the DLR network RSSB PTI tool still being used to assess DLR's platform train interface risks. A number of high PTI incident locations have been assessed using this tool. The DLR Passenger Safety Focus Group is analysing the assessment results Continue the DLR slip/trip/fall campaign through the winter

The DLR slip / trip / fall campaign has been completed and has contributed to a reduction in slips, trips and falls at DLR stations

Other highlights

 Safer boarding and alighting In January 2019, the DLR submitted an application to the Department for Transport (DfT) for an exemption against the RVAR requirement for a three-second door closure warning. This followed a series of trials in 2018 examining the safety, accessibility and operational implications of introducing a door closure warning onto the DLR. The DLR currently operates with a zero-second door closure warning. The application was subject to public consultation, which has now ended. We have responded to the consultation comments from the DfT and are awaiting feedback on their final determination as to the granting, or otherwise, of the extension

- Update the London Overground safety authorisation
 - Work was done during the quarter for official submission to the Office of Rail and Road in May 2019. Once submitted the process will begin to gain formal approval by September 2019
- Arriva Rail London (ARL) has been delivering a programme of improvement works targeting slips, trips and falls at station

Through accident data analysis it has identified slip, trip and fall hot spots at its stations and is working with station staff to identify controls or asset improvements to address the causes. This has resulted in suggested improvements to posters and other messaging at stations. A new flooring material made from environmental fishing net will also be installed. Wi-Fi sensors will be installed at Brondesbury and Bushey that warn of temperature fluctuations to improve our response to bad extreme weather

Our plans for next quarter

Issue travel advice and guidance for passengers on trams, as the temperatures rise

Customer campaign on Beware of Quiet Trams

Work continues assessing all platforms using the RSSB's PTI tool

Work to make platform passenger emergency points (PEPs) more visible, roll out a trial at three station locations

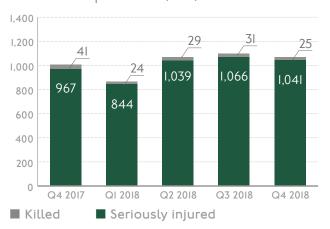
Launch the Crossrail Safety Management system for Infrastructure Manager responsibilities

Streets O A B /A &

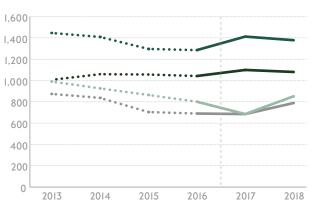


People killed or seriously injured (provisional)*

Past five quarters (KSI)



Annual totals*



Provisional figures for 2018 show that 4,099 people were killed or seriously injured on London's roads. This is a 36 per cent reduction from the 2005-09 baseline, but behind the 2018 target required to meet the Mayor's Vision Zero target of a 65 per cent reduction in the number of people killed or seriously injured by 2022.

The number of people killed or seriously injured while cycling and motorcycling fell during Q4 of 2018 when compared to the same quarter in 2017. However, the number of people seriously injured while walking increased, in particular in collisions involving cars.

During the whole of 2018 the greatest increase in the number of people killed or seriously injured was among car occupants, compared to 2017. The number of people killed or seriously injured while cycling also increased, in particular in collisions involving cars. We are undertaking further analysis to understand these concerning trends.



^{*} Figures from the end of 2016 have been reported using a new system (COPA). The dotted lines in the graph for calendar years 2013-2016 denote back-estimated figures following analysis undertaken with the Transport Research Laboratory to indicate how many collisions would have been reported under this system in previous years.

Past five quarters (type of user)



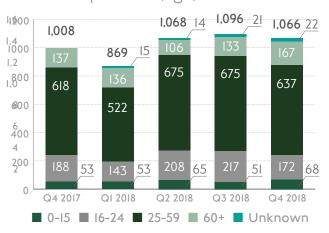
- Pedestrians Cyclists Motorcyc
- Other motorised vehicles

We continue to deliver improvements at the 73 junctions identified as some of the most dangerous, introducing mitigation measures to reduce road danger. Our initial review of the completed projects has found an average 25 per cent decrease in collisions, across all locations. We are taking the remaining 46 schemes through design, with I4 scheduled for construction by spring 2020.

We continued our enforcement operations in conjunction with the Metropolitan Police Service.

To support borough road danger reduction, a tailored 2017 dashboard summary and

Past five quarters (age)



factsheet was sent to each borough at the end of December 2018. This outlined key casualty trends, risks and issues in that borough.

We are continuing to implement our Direct Vision Standard for HGVs.

To help inform our future plans, we are working with the charities RoadPeace and Brake, and meeting with people affected by road trauma, to understand what more we could do to provide more support. The discussions have been highly productive and we are using some of the suggestions to identify actions in response.

All of our planned improvements were completed.

Vision Zero

- Release a slower speeds toolkit to inform the developers of highway schemes A Safe Speeds working group has been established between ourselves at TfL, London Councils and the boroughs and the toolkit is being consulted on as part of this forum before it is published. The kick off meeting for this group was held in March
- Trial the effectiveness of localised interventions in influencing customer behaviour
 - In March 2019, we partnered with the Metropolitan Police Service (MPS) and carried out a trial at Angel junction to understand the impact of targeted communications on driver behaviour. Localised marketing campaigns, variable message signs and police activity were amongst the interventions tested. Early results from the monitoring data suggest that the interventions helped improve driver behaviour, especially when used in combination with each other
- Provide each London borough with bespoke information on injury trends, risks and issues
 - A 2017 dashboard summary and factsheet has been provided to each borough outlining key casualty trends, risks and issues, to help them focus their programmes for road danger reduction where they will deliver greatest benefit
- Consult those with direct experience of road collisions and their aftermath, to inform future improvement plans On 31 January 2019, the Mayor, the Transport Commissioner, the Met Police

- and other senior managers met with a number of people whose lives have been significantly changed by road trauma at an event in City Hall. The purpose of the event was to understand more clearly what we could do as an organisation, either directly or working with partners, to prevent unnecessary suffering and to support people that have suffered as a result of road collisions. Work is underway to develop a plan for taking this forward
- Develop a methodology for predicting road risk
- We are developing a tool that will enable us to measure the characteristics of a street that lead to potentially road danger. The ability to measure the characteristics leading to road danger on our streets, rather than simply the number of casualties, would enable local authorities to proactively tackle danger before it leads to collisions, and to transform streets where people are afraid to walk and cycle. This project is due to complete in the summer
- Direct Vision Standard consultation In January we launched the final public consultation on the world's first Direct Vision Standard proposal, which will tackle road danger at its source by eliminating HGVs blind spots. The Direct Vision Standard and associated Safety Permit for HGVs that have retrofitted a Safe System, will reduce road danger for people across the capital. We now have confirmation that the European Union has raised no objection to our Direct Vision Standard for HGVs, allowing us to continue implementing the scheme. The standard will enable better detection of all vulnerable road users including

cyclists, pedestrians and motor cyclists, and help continue the trend of reducing the number of people killed or seriously injured on London's transport network

Continue high profile police enforcement operations

Operation Goldstein with the Roads and Transport Policing Command deployed a combination of enforcement, engagement and engineering interventions to make a lasting change to road user behaviour. In January, we launched a crackdown on illegal, dangerous and careless behaviours. Eighty-four drivers were arrested for offences including drink, drug, dangerous and disqualified driving. We continue to work closely with the Metropolitan Police to implement a Vision Zero policing strategy and to deliver active problemsolving at high-risk locations.

The Roads and Transport Policing Command (RTPC) continued their focus on tackling road danger and delivering on the Mayor's Vision Zero commitments. During February and March they focused on motorists and riders along the AI2 who exceed the speed limit or commit other road traffic offences as part of Operation Neso, which concentrates on high risk roads. Over I0 weeks from 4 February, 520 drivers were found to be travelling at excess speeds, and received fines. Of those drivers, I87 face potential disqualification owning to their high speed. Six were caught driving in excess of I00mph.

On this six mile stretch of the AI2 there have been five fatal road collisions between 9 April 2018 and I January 2019. Since road enforcement has been put in place to specifically target this problem area, there have been no fatalities or serious collisions

Start construction on Cycleway 10

We made good progress with the routes between Acton and Notting Hill Gate (formerly Cycleway I0). Construction started on I8 March for the outer section between Acton and Wood Lane with major carriageway works due to start in QI

 Launch the Temporary Traffic Management Handbook to improve safety at roadworks

Between 2005 and 2017, 99 people were killed or seriously injured near roadworks on TLRN. To help prevent unsafe roadworks in future, we have published a Temporary Traffic Management Handbook, giving all companies who want to do work on London's roads clear guidance and innovative ideas on how to keep people safe around roadworks. It updates standards that were last published in 2013.

We successfully prosecuted Cadent Gas for a series of unsafe roadworks, with the utility company ordered to pay a fine of £40.000

- Complete installation of zebra crossings at bus stop bypasses
 - The programme to install zebra-crossings at bus stop by-passes was completed in March
- Continue with our programme of supplier assessments for highway contractors
 Assessments were completed for our three highway maintenance framework contractors. Assessments were also completed for a number of suppliers who undertake construction work on our road network and will continue as part of a rolling programme

Other Q4 highlights

• Embedding Vision Zero

A network of champions are working to embed Vision Zero in their part of the organisation and met in February to share updates on how they are working with their teams to challenge a business as usual approach

A 'Go, Look, See' process requiring sitevisits and actions tracking after any fatality on our network is now well underway. We've also been developing tactical plans to address issues emerging from the latest casualty data such as taxi and private hire involvement in casualties, pedestrian fatalities and serious injuries involving HGVs, and cyclist casualties

Pedestrian town centres

Responses to the consultation for improvements in Tooting town centre have now been reviewed, and alongside the borough, further consideration is being given to how we can adapt proposals to address some of the issues that have been raised. Construction on the scheme is expected to commence at Tooting Broadway junction in September.

Design work is continuing on the Peckham Town Centre scheme. Interventions are currently being developed to improve safety for those walking, cycling and using public transport in this location

Lower speed limits

Feasibility designs have been prepared to reduce the speed limit to 20mph on the TLRN inside the Congestion Charging Zone. There has been early engagement with key stakeholders including London Buses, boroughs and emergency services with the public consultation opening in June

• Safer cycling – segregated Cycleways
Construction started on I8 March
to deliver pedestrian and cycle
improvements between Acton and
Wood Lane along the A40, with major
carriageway works due to commence in
QI. Construction work is also underway
at two critical junctions on Edgware
Road and Euston Road that will provide
significant improvements for people
wanting to walk and cycle.

Work continued on the remaining noncore parts of East- West segregated Cycleway. In February we commenced construction in North Carriage Drive. All the required construction works at Trinity Square were completed in October 2018. The final stage of planned resurfacing works, which were postponed from November owing to a series of unplanned events, was completed in March 2019. We have completed the designs, construction programmes and traffic management plans for Cycleway 4, with works due to commence in July 2019. We have carried out localised public consultation for revised proposals at Kew Bridge and Duke's Avenue, and we are currently reviewing feedback. On 19 March we published a statement on Cycleway Il outlining our intended way forward following the judicial review. In the short term we will focus our resources on delivering other much needed cycle routes. However, Swiss Cottage needs to be made safer and we will work with Camden Council on plans to transform this intimidating traffic-dominated and outdated junction

Cycling future routes

Work continues on several major new routes, identified in the Strategic Cycling Analysis. Stakeholder engagement for four routes was carried out between January and March 2019 to get views and suggestions on our initial plans • Enhancing safety decision-making
This quarter saw the launch of the 4Ps
framework within our control centre. It
translates the Mayor's Healthy Streets
and Vision Zero commitments into
working principles focused on Protection
(Safety), Pedestrians, Pedal Cycles and
Passengers that can be used for real time
decision-making within the control centre

environment

Our plans for next quarter

RTPC speed enforcement operations to be completed

Freight operator recognition scheme futures event

Public consultation to begin on future cycle routes and schemes

Continued progress on delivery of safer junctions programme. Including start of the main construction works at Old Street and Highbury Corner two-way operations

Publication of Direct Vision Standard consultation response

Other operations 📮 碘 🛱 🦗 🚐



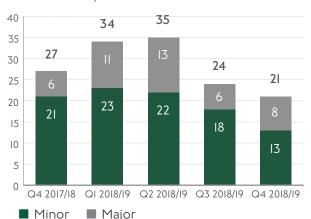




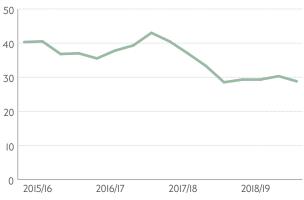


Customer injuries

Past five quarters*







Top cause of injury (%)

Slips, trips and falls	71
Collisions	5
Personal injury	24

Nineteen injuries on Dial-a-Ride and two at Victoria Coach Station (VCS). This was 22.2 per cent lower than the same quarter last year. There were no injuries on Cycle Hire.

New vehicles with lower floors that are easier for customers to get on and off are being rolled out across the Dial-a-Ride fleet. The incident investigation process applied to significant incidents on the bus network has now been implemented within Dial-a-Ride to ensure that the root cause of incidents is fully understood and appropriate corrective action taken.

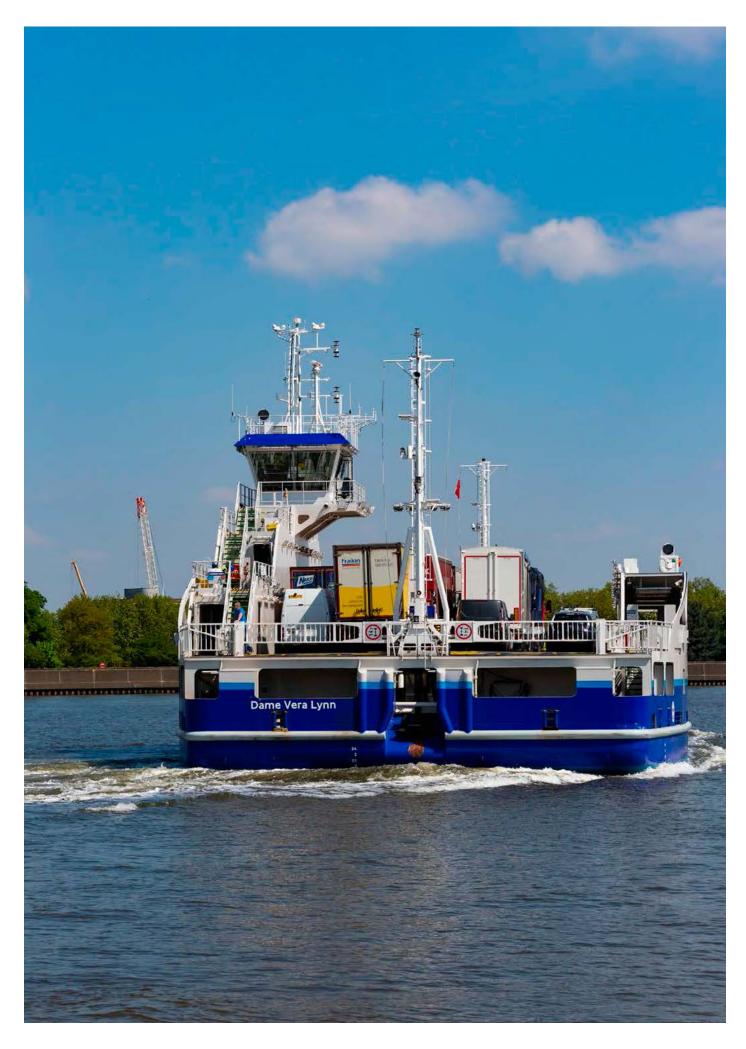
Of these injuries, 7I per cent were attributed to slips, trips and falls, which is the same proportion as the same quarter in 2017/18. Seven customers were taken to hospital as a result of falls, which equates to 47 per cent of the total falls reported. Eleven passengers were injured while boarding, two while alighting and two falls on the same level. The number of injuries has seen a significant improvement with almost 10 fewer reported for each quarter this year when compared to the previous four years.

The number of injuries reported in other operations has decreased from Q I-4 of 2017/18 – 2018/19 to an average of 28 per quarter compared to the same guarters in 2015/16 - 2016/17. The decrease was due to a combination of improvements on VCS and more accurate reporting. VCS in 2018/19 made up 18 per cent of total other injuries, compared to 43 per cent in 2014/15.



Number of injuries within our other operations compared to 27 last year (22.2% ▼ against Q4 2017/18)

^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).



We completed one of our planned improvement. The remaining action will be completed in QI.

· Launch safety improvement plan for the Thames

The Safety Improvement Plan for the Thames is part of the river safety strategy that will be launched in QI. Through the Thames Partnership Group, we continued our joint working with the Port of London Authority, the Maritime Coastguard Agency and the River Police on river safety, including the issue of the first combined business safety bulletin

• Enhancing the investigation process in Dial-a-Ride to ensure lessons are learnt and assist the prevention process The incident investigation process applied to significant incidents on the bus network has now been implemented within Dial-a-Ride to ensure that the root cause of incidents is fully understood and appropriate corrective action taken

Our plans for next quarter

Continue to engage with the members of the Thames Partnership Group to improve customer and staff safety on the river

Safety - feedback from customers

Number of complaints

Q4	Q4
2017/18	2018/19
306	408
1,106	1,656
32	37
35	42
18	18
11	12
1	2
0	0
3	3
2	0
1	1
6	[]
2	0
1,523	2,190
	2017/18 306 1,106 32 35 18 11 1 0 3 2 1 6

 $^{^{\}ast}$ Taxi and private hire complaint numbers are not directly comparable due to the way they are received and recorded

There was an increase in safety contacts compared to last year, partly as a result of the introduction of a new web feature that allows our complaints system to capture safety issues more effectively. All safety critical contacts are actioned within 24 hours.

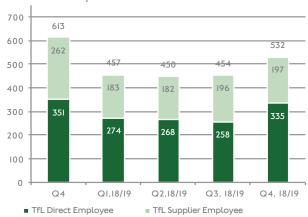
Buses remain the area with the most safety complaints, with passenger falls, collisions or near misses with other road users the main concerns. London Underground also saw an increase in customers reporting faulty train doors and escalators, which are logged as safety feedback.

Workforce

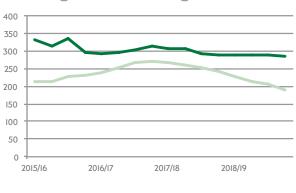


Workforce injuries

Past five quarters*



Moving annual average



— TfL Direct Employee

TfL Supplier Employee

There were no workforce fatalities during the quarter. There were 532 workforce injuries in Q4. This was I3 per cent fewer than the same quarter last year:

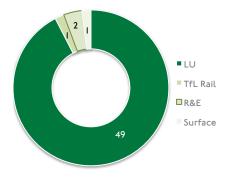
- Five per cent fewer to direct employees
- Twenty-five per cent fewer to supplier staff

Direct employees

Our direct employees accounted for 63 per cent of the total workforce injuries. Of the workforce injuries, 89 per cent were in LU where the majority of our direct employees work. The overall number of injuries continues to fall, with 2018/19 recording the fewest for 5 years.

Supplier staff

Our supplier staff accounted for 37 per cent of total workforce injuries. Of these, 53 per cent were to bus drivers. In line with the direct TfL employee trend, injuries to supplier staff are at a five year low. The decline against the number of supplier injuries last year is 21.4 per cent. This is mostly (21 per cent) due to the reduction in injuries to bus drivers who are the majority of supplier staff.



RIDDORs

There were 53 reportable incidents affecting our workforce. of which 49 were on LU. Of these, 19 were the result of slips, trips and falls.

* Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

Number of workforce injuries on the LU network this quarter (4.4% ▼ compared to Q4 2017/18)



Number of workforce injuries on the Bus network this quarter (32.5% ▼ compared to Q4 2017/18)



Number of total construction workforce injuries quarter (6.1% ▼ compared to Q4 2017/18)





Six of our seven planned improvements were completed and significant progress has been made with the remaining action.

- Develop an improvement plan to address injuries arising from contact with machinery and tools on LU During Q4 we developed our workforce engagement plan and 12 month lookahead workforce communications plan. We have been continuing the injury free week initiative which focuses on a different topic every day, including slips/ trips/falls, machinery, manual handling, high maintenance (falling objects/work at height) and workplace violence on LU
- Refresh manual handling training for our DAR drivers following the introduction of our new vehicles

We are currently working through a three year plan to deliver refresher training to all of our drivers. This three day course covers manual handling training, wheelchair movement and best practice for loading, unloading and securing wheelchairs. We are just over a third through this programme so there are still in the region of 200 drivers to see.

We have completed new bus familiarisation training for all 300 drivers, meaning they are all able to drive the 90 new vehicles which came into the fleet to ensure we are ULEZ compliant. This training focused on understanding the differences between the old vehicles and the new, ensuring drivers were comfortable with changes

- to ramp operation, door controls, seat adjustments, as well as changes to the dash and mirrors
- Extend the bus operator assurance arrangements to include engineering Our bus operator assurance arrangements continue to focus on ensuring that the key day to day management activities that support good HSE performance are in place. This approach has helped to contribute to the improved performance we've seen across our bus network. Work to extend the criteria to include engineering and environmental aspects is underway and will be completed in QI
- Develop a workforce safety video for LU train staff During 2018/19, we developed a number of short films of LU train operators sharing their safety experiences, this is being further developed and will be launched to all LU train operators in QI
- Improve LU's processes for communicating operational messages There are significant safety risks associated with poor communication of safety information in an operational environment. As a result, LU has overhauled its operational communication framework and will be launching the new approach in QI. The new approach has been built working with front line teams within LU and taking best practice from other transport industries

 Launch the new HSE training module for managers

The online HSE training course for managers Managing HSE@TfL was launched, supplemented by classroombased courses for operational, engineering and maintenance managers. The courses focus on the identification and reduction of risk, building robust monitoring regimes, developing HSE improvement plans and how the application of the TfL HSE management system and good HSE leadership and behaviour supports good performance

• Fatigue Management Plan

The Fatigue Management Improvement programme has been continuing and a long term action plan has been drafted. The pan-TfL action plan will include suppliers. The three month trial on London Trams was undertaken and the findings are being reviewed. The report will be compiled for consideration by the business. The research into fatigue on the Trams maintenance teams is ongoing and the work to research fatigue for bus operators has been drafted for review and development of an action plan

Our plans for next quarter

Safety leadership and staff engagement to 'get the basics right' will continue as part of the workforce safety plan for LU

The near miss reporting app will continue to the trialled on LU

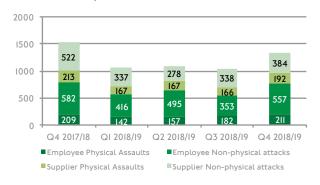
New operational communications arrangements for LU will be launched

The trial of body worn cameras on stations will be rolled out at I2 stations

Continue our work to extend the bus operator assurance arrangements to include engineering Launch the revised Beacon award scheme across TfL

Violence against our staff

Past five quarters*



^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

Types

Physical assaults	403
Non-physical assaults	941
Total assaults	1344

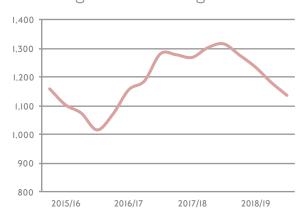
There were 403 incidents of violence against our staff in Q4. This compares to 422 in Q4 of 2017/18, a decrease of 19 (five per cent).

There were 285 incidents of workplace aggression in Q4 compared to 3II in 2017/18, a decrease of 26 (eight per cent).

As part of our pan-TfL strategic review of this important issue, we held a summit on workplace violence and aggression in March.

At this summit we brought together people from across our business and beyond, and the operators we work with, including senior managers, directors and front-line colleagues. We listened to each other about the issues we

Moving annual average

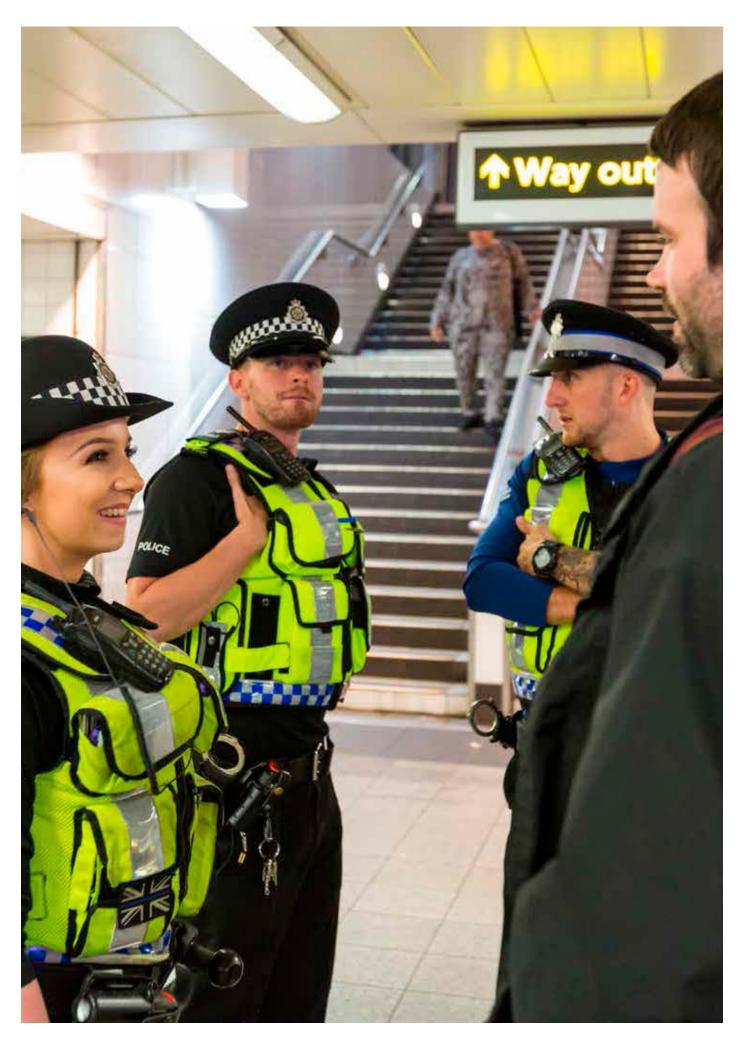


face and, through workshops, generated ideas for tackling this worrying problem.

The audience also heard from our policing partner, trade unions and front-line colleagues, who had personally been victims of violence and aggression at work.

Our strategic and organisational review is focusing on employees who are directly employed by TfL and the workforces of our suppliers, operators and contractors.

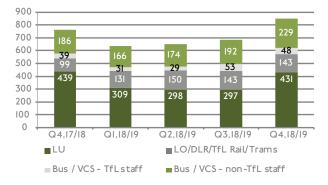
As part of our review we are developing a pan-TfL Workplace Violence and Aggression Strategy over the Summer in collaboration with trade unions and front-line colleagues.



Both of our planned improvements were completed.

- Start rollout of body-worn cameras to the top 10 LU stations experiencing assaults In Q4 we rolled out body worn cameras to two stations on LU network. During the next quarter we are extending this to 12 stations, and depending on feedback from our front line teams, will develop a plan for rolling these out across the network. We anticipate that the presence of visible cameras will deter the small number of customers who engage in threatening and / or aggressive
- behaviour, whilst giving our workforce more confidence and assurance when interacting with members of the public
- Introduce conflict management training for our bus operations and enforcement workforce
 - Operators RATP Dev London and Abellio continue to provide conflict management training to bus drivers through classroom and video-based training. We have implemented a new conflict management training script for our Taxi and Private Hire team, to help them deal with angry and abusive callers

Police recorded violence / public order offences against staff (volume)



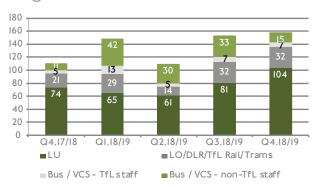
We work closely with the MPS Roads Transport Policing Command and the British Transport Police (BTP) to support investigations into violence (physical and nonphysical) towards our workforce.

We are currently developing our first ever pan-TfL workplace violence and aggression strategy. It is imperative that our people, and the workforce of our suppliers and contractors, feel safe and supported and we are determined to do more to tackle workplace violence and aggression against our people. Part of our improvement activity includes improving the quality of our reporting, data and analysis to gain a deeper understanding of trends and issues to better target actions. Future HSE quarterly reports will include more insight as this work progresses.

In Q4 the police recorded the following violence/public order offences against staff:

LU	430
LO / DLR / TfL Rail / Trams	143
Bus / VCS TfL staff	48
Bus / VCS non TfL staff	229

Positive outcomes of police recorded violence / public order offences against staff (volume)

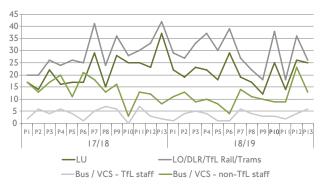


The full 2018/19 volume of offences against staff was 4 per cent higher than 2017/18; there was a reduction on the bus network, with rises on all the rail transport modes policed.

In Q4 the overall positive outcome rate was 19 per cent This value fluctuates greatly between the BTP and the MPS and is reflective of the live nature of ongoing investigations with many cases open at time of reporting. The majority of recorded staff assaults were on the bus and LU networks (33 per cent and 51 per cent respectively), with the positive outcome rate for this quarter being 8 per cent on the bus network and 24 per cent on the BTP-policed TfL networks.

The full 2018/19 positive outcome rate is 20 per cent (compared to 18 per cent in 2017/18) and likely to improve as investigations are completed.

Police recorded violence / public order offences against staff which are deemed a hate crime (volume)

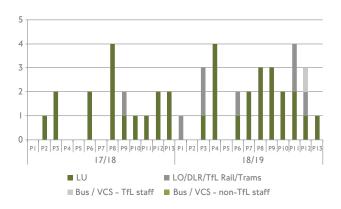


The police will flag an offence as a hate crime if it is motivated by one of more of the factors of race, religion/faith, sexual orientation, disability or transgender identify. Tackling hate crime against our staff and customers is a priority for us and our policing partners. We lead a range of activities to deal with hate crime on our transport network to reassure our staff and passengers who feel more vulnerable to victimisation, and encourage people to report incidents to the police.

In Q4 the proportion of offences against staff deemed hate crime was 22 per cent a slightly higher rate than the preceding quarter, however it is lower than Q4 2017/18. The majority of hate-related staff assaults are racially motivated (in excess of 80 per cent) and this is consistent across all modes.

The full 2018/19 rate was 20 per cent (compared to 22 per cent in 2017/18). The full 2018/19 volume was 7 per cent lower than 2017/18, and upon the bus network there was a statistically significant 20 per cent reduction year on year (with no change on the other TfL modes overall).

Sexual offences against members of staff



The volume of offences remains low and relate to exposure and unwanted touching.

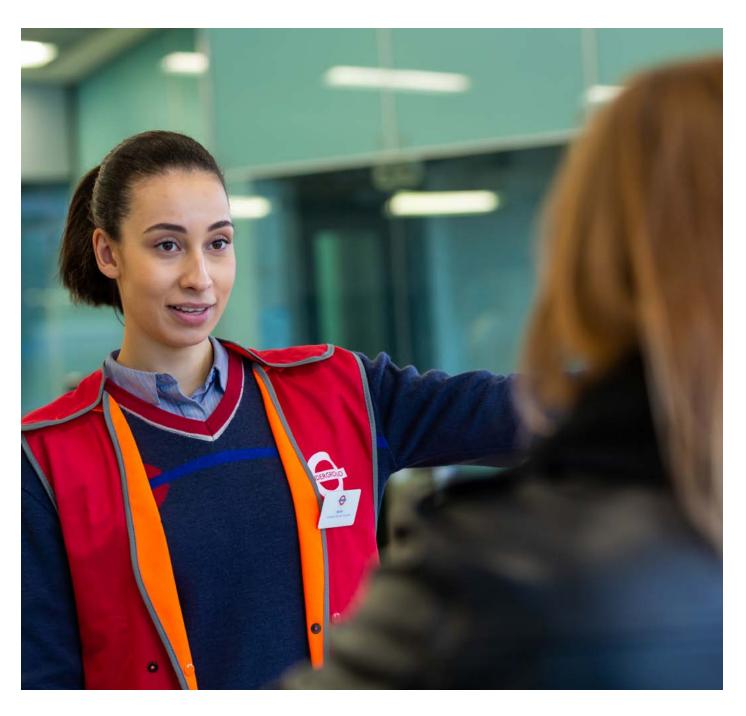
We continue to work with the BTP, City of London Police and the MPS on Project Guardian, a partnership initiative to increase the confidence in reporting sexual offences on London's public transport system, reduce the risk of becoming a victim, challenge unwelcome sexual behaviour and target offenders.

The full 2018/19 volume was 27, 10 higher than in 207/18, however this is not a statistically significant rise.

Our plans for next quarter

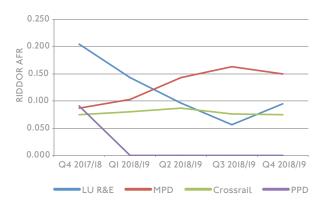
Draft a pan-TfL strategy for Tackling Workplace Violence and Aggression to be presented to the Safety Sustainability and Human Resource Panel in September

Deliver additional staff peer support training



Workforce injuries - construction

Construction workforce accident frequency rate - past five quarters*



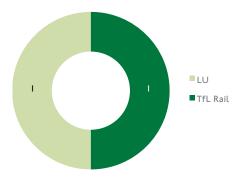
^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

Top causes of injury (%)

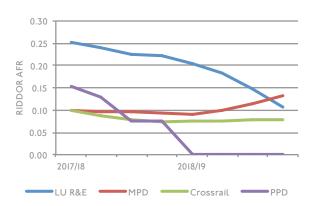
Machinery / equipment / powered tools	17
Slips / trip / falls	17
Non compliant with HSE rules	11

Our construction workforce accounted for 46 of our workforce injuries Q4. This is a six per cent decrease on Q4 2017/18.

There were two major injuries in 2018/19 compared to five in 2017/18, a 60 per cent decrease but there is an increasing trend in incidents of minor injuries that have resulted in seven or more days off work.



Moving annual average



For our direct employees machinery/equipment/ tools were the main cause of injuries in Q4. The majority of the direct employee injuries were within LU where there continues to be a stable trend since the start of last year. Manual handling and non compliance with HSE rules (eg safe system of work and personal protective equipment) are the second most common cause of injury for our construction workforce within LU and MPD. In response, the 'who am I safe for' cultural improvement programme has been introduced to help people consider the consequences that unsafe actions at work could have on their home-life.

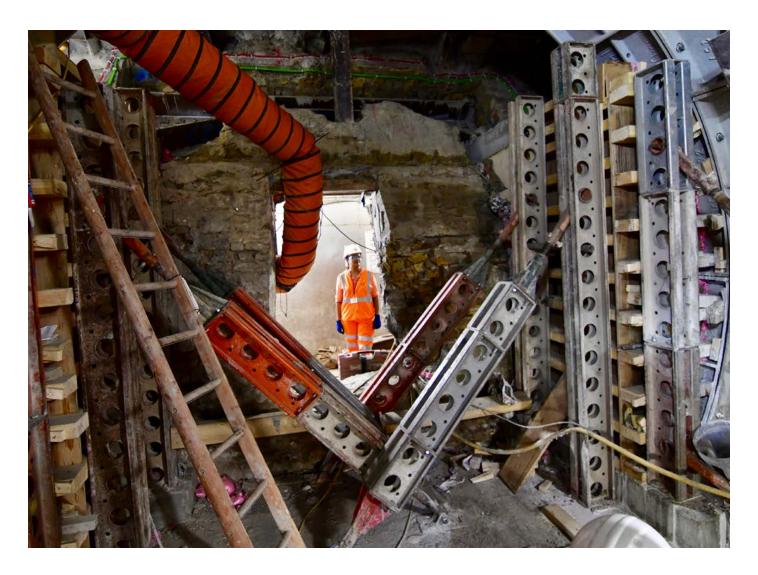
RIDDORs

Two of the injuries in the quarter were reported under RIDDOR, one triggered by the length of absence from work and one due to the severity of the injury.

On Crossrail, the RIDDOR accident frequency rate (AFR) increased this guarter from 0.07 to 0.08, which is well below the target of 0.15 and lower than the highest rate this year (0.09 in Period 6). There have been no PPD RIDDORs reported in the last four quarters resulting in a moving annual average of zero.

Quarter 4 achievements

- For the third consecutive year, the Northern Line Extension project was awarded GOLD at the RoSPA (Royal Society for the Prevention of Accidents) Awards. The ceremony is due to take place on 19 June in London. Dragados, the Principal Contractor on the Bank Station Capacity Upgrade, has maintained its accreditation under the Considerate Contractor
- The Balfour Beatty team working on Northern Line Power Project has set up a satellite welfare facility within Dagenham Heathway substation land; demonstrating a positive commitment to preparation and planning for good worker welfare
- In March we approved a new HSE assurance framework which outlines the tasks carried out to provide and receive HSE assurance through a structured and evidenced risk based approach



Five of our six planned improvements were completed and significant progress has been made with the remaining action.

- Launch a construction urban safety plan to respond to an increase in violence against our construction workforce The urban safety plan has been launched, initially focusing on the major projects part of the business for trials. If successful the programme will be expanded to cover all of TfL Capital Delivery. Next steps are for the pilot activities outlined in the plan to be delivered via our Construction Management Teams
- Launch the revised Beacon award scheme across TfL

The draft design of the revised award scheme has been completed and is currently being consulted upon across all TfL capital delivery and maintenance teams. However, a improvement to aid accessibility to the scheme across TfL identified during consultation with the business has delayed the formal launch of the scheme. The delay is to allow design work to be completed with a software developer to ensure everyone who works within or for TfL has consistent access to the scheme

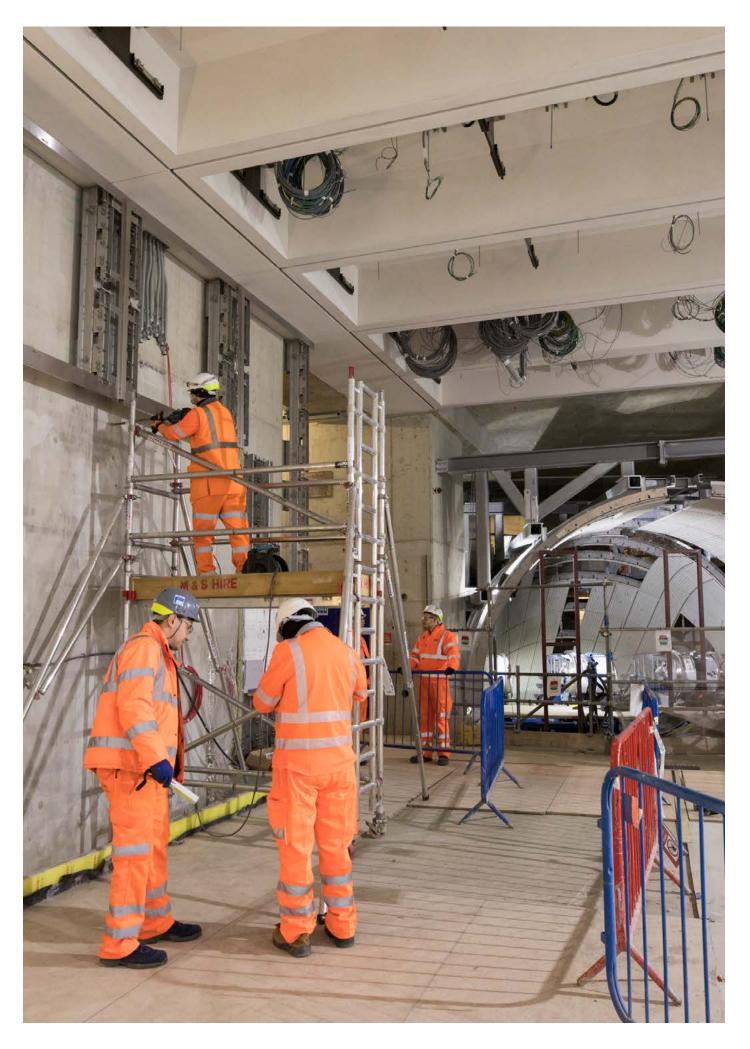
from launch. The software design is currently underway, utilising an existing TfL IT system

 Provide additional knowledge and skills to our internal design teams on designing out risk

A new training course for outlining legal responsibilities for designers under the Construction (Design and Management) Regulations has been developed and will be piloted during QI

- Facilitate joint workshops for our design supply chain partners to share their ways of working with sub-contractors Workshops have been facilitated via our HSE collaboration vehicle, the pan-TfL Zero Harm Forum, including support from TfL on the duties of the principal designer
- Facilitate roundtable discussions for subcontractors to learn from main contractors

We have successfully facilitated discussions via our HSE collaboration vehicle, the pan-TfL Zero Harm Forum. These discussions have been at both a tactical and strategic level and will be ongoing as the Zero Harm Forum agenda develops throughout the year



 Hold our third Zero Harm Forum to engage all tiers of the supply chain A Zero Harm forum was held on 29 March. Key Suppliers who undertake works for us were invited to work collaboratively to deliver a positive HSE culture. It was a successful day with an increase in attendance compared to the last event in November 2018.

Key topics discussed included:

- The importance of reporting observations and near misses and having conversations with those concerned, to drive improvements
- The need for us and our supply chain to work together in collaboration to improve safety
- Making safety personal
- The role of the Principal Designer in improving health and safety; and Behavioural Based Safety.

The four consortia formed at the last event provided an update on their actions so far and their improvement plan going forward. In an interactive session delegates shared their knowledge and experience on a range of topics to provide tangible steps that can be adopted and measured. The themes covered were safety culture and behaviours, making safety personal, urban safety and health & wellbeing.

The event closed with audience participation in a Mindfulness exercise. The next forum will take place in November 2019.

Safety on Crossrail

The focus on strong health and safety performance has been maintained through the last quarter of the year, during a time of considerable change. Crossrail and its contractors continue to work together to deliver the project with high standards of health and safety.

The past four months have seen continued overall good performance on the Health and Safety Performance Index (HSPI). However, there has been a deterioration in RIDDOR, lost time case (LTC) and high potential near miss (HPNM) rates. Throughout Q4 the number of HPNMs was trending upwards. The rate reached the highest level it has ever been. To address that a special Safety Health Executive Leadership Team was held in December. New initiatives to reduce the HPNM rate were developed and rolled out. The rate reduced into the New Year but has then increased again. Further initiatives are planned to renew our focus.

The safety risks have been changing as the project progresses, and we have been focusing on the higher risk process issues that come from dynamic testing, energisation and de-energisation and testing and commissioning. The health and safety risks matrix is being reviewed and a structured look ahead process developed to highlight new risks and controls. The indicators needed to measure, and monitor effectiveness of these controls are being reformulated. This will lead to a repositioning of the

risks and controls and a revision to the HSPI for the whole programme.

The monthly Crossrail Learning Forum has continued to be a very successful way of sharing information from recent incidents and best practice initiatives. The forum is now well established. The forum

is attended by members of both the construction and health and safety teams and the turnout has been continuously improving. In addition to the forum, Crossrail distribute a bi-weekly learning pack focusing on learning from recent incidents to ensure that those who miss the forum are still being kept up to date

Our plans for next quarter

Design and launch a new summer safety campaign to raise awareness amongst staff and suppliers of the risks to their health and safety during the summer. Data trending suggests we see a peak in minor incidents during this quarter

MPD 'Connecting with site campaign' – to enable our office based staff to visit our construction sites to understand the HSE challenges and opportunities for our teams and our suppliers' construction teams

Re-design our staff induction for those who visit us or our suppliers construction sites

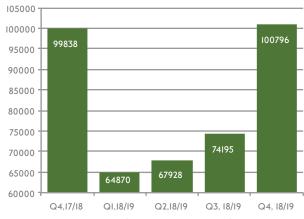
Launch an improvement to "Be the best 'Client' we can be". Working with our supply chain to understand how we can improve our relationships with them. This includes how we can do more to lead by example, support our suppliers and crucially providing an environment in which our suppliers can develop and deploy HSE innovations that reduce harm

The 'who am I safe for' cultural improvement programme introduced across MPD to help people consider the consequences that unsafe actions at work could have on their home-life will be rolled out across TfL

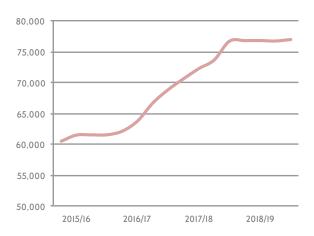
Sickness, absence and wellbeing

Days lost to sickness

Past five quarters*



Moving annual average



* Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks)

During the quarter, 5I per cent of the days lost due to absence were attributed to musculo-skeletal, mental health as well as assaults and accidents. For the same quarter last year, these conditions attributed for 47 per cent of the total days lost. These factors on an average for all quarters over the previous five years contribute to almost half of the sickness reported.

The total number of working days lost to sickness has increased by 0.96 per cent (958) compared to the same quarter last year. This was contributed by increases in the following areas:

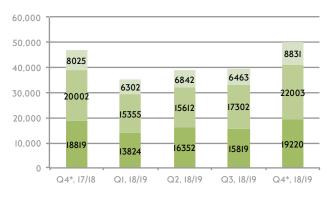
- Working days lost due to musculo-skeletal problems increased by 2.9 per cent
- Absence due to accidents and assaults increased by I0.5 per cent
- The number of working days lost due to mental health issues causes increased by 8 per cent

100,796 Working days lost to sickness (0.96% 🔺 compared to Q4 2017/18)

Percentage working days lost to sickness (3.81% 🔺 compared to Q4 2017/18)

Working days lost due to sickness

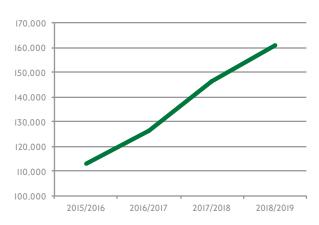
Past five quarters*



^{*} Q4 is longer than quarters I to 3 (I6 weeks instead of I2 weeks).

The number of working days lost since the start of 2014/15 shows an increasing trend over the past five years. Absence due to mental health issues have shown the largest increase over the five year period; including a six per cent increase between 2017/18 and 2018/19. Absence due to accidents and assaults also

Moving annual average



increased over the five year period; including an increase of 4.6 per cent between 2017/18 and 2018/19.

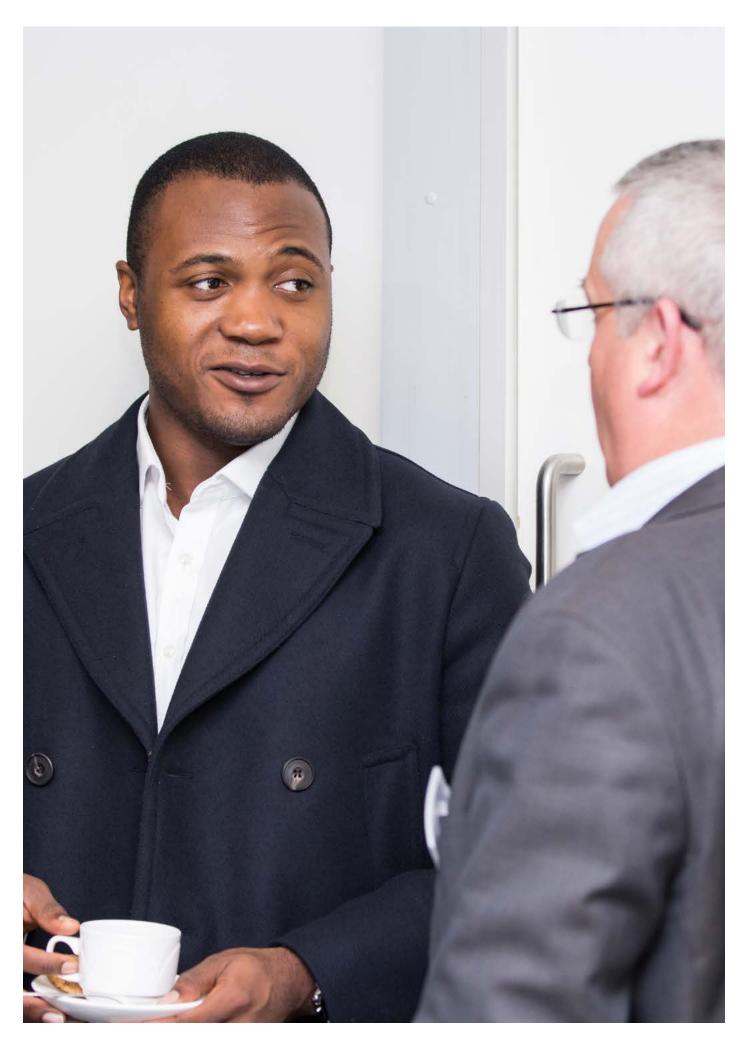
Following an iincreasing trend, absence due to musculo-skeletal issues was 2.6 per cent lower in 2018/19 than in the previous year.

Did we deliver our planned improvements?

All of our planned improvements were completed.

- Promote the NHS-sponsored Sleepio app On 21 January we launched our partnership with London's NHS Digital Mental Wellbeing Service, Good Thinking to give our workforce free access to an online sleep improvement programme, Sleepio ahead of its national launch later this year. Through an online selfhelp programme based on Cognitive Behavioural Therapy (CBT), users learn cognitive techniques to help tackle the racing mind and behavioural strategies to help reset sleeping patterns naturally, without relying on sleeping pills. Sleepio also has some specific help and advice for shift workers
- Hold a peer support network conference On II March 2019 We held our Peer Support Network Conference at City Hall. Health and Wellbeing champions, Time to Change Agents, Trauma Support Group and Supporting Colleagues Network gathered at London's City Hall to share stories and hear from experts in mental and physical health. This collective group, known as our peer supporters, work closely with our Occupational Health team to help deliver key health and wellbeing initiatives, such as Time to Talk, across the business. Many also play an important role in providing personal support to colleagues on mental health issues. The purpose of the day was to recognise the work that the peer support volunteers do to support the delivery of health and wellbeing strategy across our business

- Train a further 50 health and wellbeing champions
 - During March we ran 2 full day courses for the new Health & Wellbeing champions which leads to a Royal Society of Public Health qualification in Health Improvement. The courses were well-received and we welcomed 61 new Champions to the network
- Promote good mental health
 We supported the Samaritans 'Brew
 Monday' campaign on Monday 2I January
 encouraging teams to get together with
 colleagues and have a brew and a chat, in
 recognition of the challenges that people
 face post-Christmas, during the darker
 months of the year
- We also supported Time to Talk day on 7
 February. Time to Talk day is part of the
 Time to Change initiative which aims to
 'end mental health discrimination'. On
 Time to Talk day we encouraged everyone
 to have a conversation about mental
 health, supported by resources on the
 Time to Change website
- A focus on wellbeing also continues within our supply chain. Abellio ran a Mindfulness training course for I2 volunteers, with all I2 confirming that they are calmer behind the wheel and better able to deal with road rage and aggressive customers. Uno have also started a Wellbeing programme with their drivers, with results due in quarter



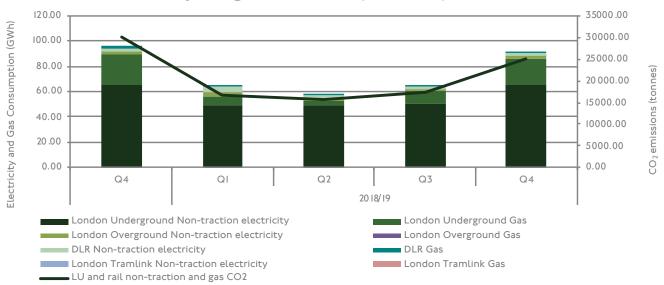
London's streets will be clean and green





Environment

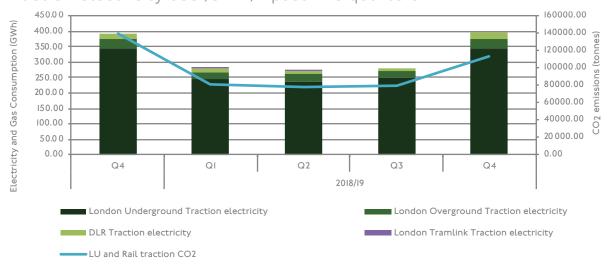
Non-traction electricity and gas use (GWh) - past five quarters



Our usage of non-traction electricity fell by I.6 per cent with a total of 73.6 GWh used during Q4. Year to date, we have used 234 GWh of non-traction electricity (down 0.4 per

cent on last year). LU is responsible for the majority of consumption and recorded a I.4 per cent increase on Q4 last year. Gas usage was down I4 per cent compared to Q4 in I7/I8.

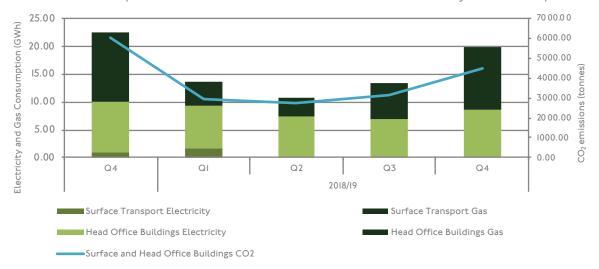
Traction electricity use (GWh) - past five quarters



Our usage of traction energy increased by one per cent with a total of 397.9 GWh used during Q4. Year to date, we have used I235.4 GWh of traction electricity. LU is responsible for the majority of consumption and recorded a 0.6 per cent decrease compared to the same

quarter of last year. For London Overground, there was a 8.8 per cent increase and DLR increased consumption by I9.5 per cent. Total CO2 emissions from rail traction energy were II3,356 tonnes in Q4, an improvement of I9 per cent compared to Q4 last year.

Surface Transport and Head Office Gas and Electricity Consumption (GWh)



Within our head office buildings, we used II.3 GWh of gas, down from I2.5 GWh used in the same quarter last year. For electricity, we saw a reduction of 4 per cent in usage. As both

our gas and electric usage has decreased, overall energy efficiency and carbon emissions have improved by 25 per cent in 2018/19 compared to 2017/18.

Environmental incidents

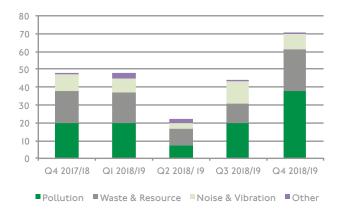
Streets Buses	0
LU	53
Rail	5
Major projects	13
Total	71

Top causes of environmental incidents (%)

Waste	33
Pollution	53
Noise & vibration	13
Other	1

There were 7I environmental incidents in Q4, an increase of 34 per cent on Q4 last year, when there were 48. These are small incidents with low impact and so are investigated locally, for example when the wrong waste type is put in the wrong receptacle. We do encourage full reporting of all types of impact and track their level.

Environmental incidents – past five quarters



Environmental complaints

Streets	22
Buses	217
LU	186
Rail	80
Major projects	4
Other	10
Total	519

A total of 519 environment related complaints were received during Q4, compared with 543 in Q4 last year; a reduction of 4 per cent. This has been driven by a fall in complaints related to air pollution, operational noise, smell/cleanliness and vandalism/waste/litter/ graffiti associated with our bus operations. On our rail networks, complaints relating to operational noise and smell/cleanliness have increased.

LU had I86 complaints in Q4 compared with I92 last year. Noise complaints rose by a fifth, with works related complaints being a key contributor to the increase. However complaints about odour and cleanliness on the Tube has reduced by nearly 40 per cent since Q4 last year.

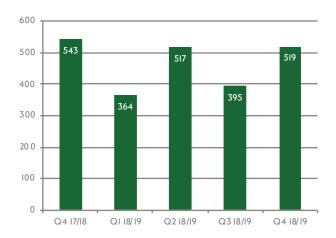
For buses, there was an overall drop from 296 last year in Q4 to 217 this year. Of these 81 complaints related to odour or cleanliness, less than half the 173 complaints received a year ago in the same quarter; Graffiti / waste/ litter was up from 60 to 84.

The number of complaints about TfL Rail in Q4 was 80, up from 32 in 2017/18, largely driven by an increase in noise complaints across all the different parts of TfL Rail. Works noise was up from 12 to 32. Part of this due to a new area being counted – Crossrail.

The Woolwich Ferry provoked II noise complaints in January and February as services resumed after replacement and refurbishment of moorings.

Top causes of environmental complaints (%)

Smell/cleanliness	24
Operational noise	23
Graffiiti/vandalism/litter	21
Engineering/works noise	17



Did we deliver our planned improvements?

All of our planned improvements were completed.

Continue preparations for the launch of ULEZ in April 2019

During Q4, we progressed with delivery of the systems required to support the ULEZ operation in readiness for its launch, and continued with our concerted marketing and communications campaign to raise awareness of the ULEZ amongst Londoners and stakeholder groups. We successfully launched the scheme in central London on 8 April. Monitoring data has shown a steady increase in the proportion of ULEZ-compliant vehicles entering the Congestion Charging Zone since the Mayor announced that the scheme would be brought forward. On 15 February, the Mayor delegated the necessary powers and directed TfL to implement the van scrappage scheme announced in December. The GLA transferred £23m to TfL by means of a revenue grant to cover the costs of the scheme. The Mayor is also calling for Government to match-fund this so the scheme can be expanded. The scheme is targeted to provide support microbusinesses and charities in switching to compliant (including electric) vehicles. We are working to develop a similar scheme to support low income households in the coming months

The Low Emission Zone (LEZ) standards will be strengthened for heavy vehicles in October 2020, and the ULEZ will be expanded to the North and South Circular Roads in October 2021.

Launch a package of measures to reduce air pollution and congestion in central London

We continue to build a network of rapid charge points across London to support the growing number of zero emission capable taxis and the wider take-up of electric vehicles. The total number of charge points across London is now 162, a major step towards our target of 300 by December 2020.

We are also developing the designs for two hub sites for electric vehicles; one in Greenwich and the other in the City of London. The hubs will consist of a cluster of rapid charge points to support both taxi and public electric vehicle users. To enable the growth of the rapid charge point network, we continue to work with the London boroughs to encourage and support the delivery of charge points on local roads. In October 2018, the London Councils' Transport & Environment Committee endorsed a directive for all boroughs to identify 20 possible sites for rapid charging points by January 2019. To date, II sites have been installed through this process.

· Low emission bus zones

We have delivered seven Low Emission Bus Zones, with a further five to launch by the end of 2019. Although the next zones are not yet in place, buses using these corridors are already being turned green by the retrofit and replacement process, reducing emissions immediately as part of the conversion process.

Other Q4 highlights

• Dust levels on the Underground

Two years ago we commissioned the Committee on the Medical Effects of Air Pollutants (COMEAP) to review academic studies and other research relating to air quality on underground railway systems. In Q4 the COMEAP report confirmed that there was no convincing evidence that LU dust levels are more toxic than those found outside, but it emphasises that further monitoring and research is needed. We closely monitor dust levels and make sure that exposure levels are well within Health and Safety Executive guidelines. We have already improved our sampling regime by including tests for additional metals, and we will continue to investigate ways we can keep dust levels to an absolute minimum.

We spend around £60m every year cleaning our trains, stations and tunnels to ensure dust levels are kept to an absolute minimum. We perform regular health checks for all our operational employees and there is no evidence to suggest our frontline teams suffer ill health effects from exposure to dust on LU for longer periods of time compared to our customers. We will continue to seek practical ways of reducing particulate matter on the Underground, as the COMEAP report has recommended

Circular economy

We are marking the two year milestone of our Recover and Reuse Initiative at the disused York Road station as a hub for freecycling within TfL of equipment spares. This ranges from station lockers and booths to CCTV cameras and PA

speakers, as well as end of project materials. Since the opening of the York Road hub the Recover & Reuse Initiative has gone from strength to strength. Financially over £900k of LU equipment has been re-used since May 2017. A further £900k in materials and assets are available at York Road. The Initiative has identified a further £500k in upcoming redundant assets.

Unexpected benefits have included helping prevent delay to the Mayor's Step Free Access Programme by reusing passenger help points held in the hub (when new help points were unable to be manufactured in time). A benefit that defied expectations stemmed from the hub's secure recovery of items of interest to the London Transport Museum. The relationship with London Transport Museum sales arm will grow due to the potential of the online market. Taking the example of recovered 'open door' buttons taken out during refurbishment of Jubilee line trains – all 3,000 were sold bringing TfL £30K income from mere door buttons

Green infrastructure

We are currently on track to meet the MTS target of a I per cent year on year increase in tree numbers on the TLRN to 2025. We are working to improve monitoring of tree planting and installation of sustainable drainage systems (SuDS) in support of the MTS's target for an additional effective surface area of 50.000 m2 to first drain into SuDS We are working to expand the biodiversity baseline from TfL's operational networks to its entire estate, to identify opportunities for enhancement and creation (for example, to compensate for losses elsewhere on the TfL estate

Climate change adaptation and resilience
 A research programme has been initiated
 with a range of academic institutions to
 develop a baseline of how current severe
 weather events (flooding and heatwaves)
 affect TfL's operations (LU and TLRN).

This will enable us to better understand and prepare for the impacts of climate change. A preliminary assessment of suitable climate change adaptation indicators has been conducted, concluding that there is a need for an annual adaptation performance report

Progress on understanding and reporting on TfL's current resilience to severe weather events is being made, with a view to better understand the likely impacts of climate change to all operations

Our plans for next quarter

Improve monitoring of circular economy and waste data ready for QI

We will launch the Ultra Low Emission Zone (ULEZ) in central London on 8 April

Regulatory investigation and enforcement update

In January, ARL received a fixed penalty fine for fly-tipping under the Environmental Protection Act, when waste from Brondesbury Station was found on Kilburn High Road. Waste briefings were provided to staff and contractors to prevent recurrence. In February the London Borough of Hillingdon served LU with a Community Protection Notice under section 43 of the Anti-Social Behaviour, Crime and Policing Act. The warning related to complaints from local residents regarding diesel exhaust emissions and noise from locomotives at West Ruislip station delivering and returning trains to

Derby. A public meeting was held with local residents, together with further monitoring and additional actions to minimise both emissions and noise. The London Borough of Hillingdon confirmed their satisfaction with the actions taken.

Also in February, as a consequence of a fault which resulted in the continuous sounding of the fire alarm at Bond Street Station, LU was served a noise abatement notice under section 80 of the Environmental Protection Act. The fault was rectified to address the notice.

Audit conclusions

Q	Strategic Risk	Audit Title	Conclusion
Q4	Achieving safety outcomes	LU Skills and Development Training Design	Adequately Controlled
Q4	Achieving safety outcomes	TfL Management of Risk from Display Screen Equipment	Adequately Controlled
Q4	Operational reliability	Electropak Supplier Audit	Requires Improvement
Q4	Operational reliability	Holbro Engineering Supplier Audit	Adequately Controlled
Q4	Operational reliability	LU Quality Management of Safety Critical Materials	Adequately Controlled
Q4	Major cyber security incident	Management of Cyber Security including Temporary Hardware Devices	Adequately Controlled
Q4	Operational reliability	IRSE Licensing	Adequately Controlled
Q4	Opening of the Elizabeth Line	C695 Construction at Plumstead	memo
Q4	Achieving safety outcomes	Lift and Escalator Statutory Inspections	Poorly Controlled
Q4	Opening of the Elizabeth Line	C6I0/696 Construction at Plumstead	memo
Q4	Achieving safety outcomes	LU Communication of Operational Rule Changes	Adequately Controlled
Q4	Operational reliability	LU Premises Inspections	Requires Improvement
Q4	Achieving safety outcomes	LU Operations Working With Electricity	Requires Improvement

A total of I3 health, safety or environmental related audits were conducted in Q4. One had a conclusion of 'poorly controlled', three were concluded as 'requires improvement' and seven as 'adequately controlled'. Two assurance assignments provided advisory memorandums which are not given a conclusion.

- I. The audit of Lift and Escalator
 Statutory Inspections was concluded
 as 'poorly controlled' as it could not
 be demonstrated that TfL is fully and
 consistently undertaking planned
 inspections of lifts and escalators
 or has a competence regime for
 inspectors. There were delays in
 accessing inspection records which
 did not provide adequate assurance
 on the status of inspections, defects
 and concessions.
- 2. The LU Premises Inspections audit was a revisit following a previously 'poorly controlled' audit. The most recent audit was concluded as 'requires improvement', there has been progress since the previous audit with some actions implemented. However, a significant number of premises inspections have not been completed.

- 3. The 'requires improvement' supplier audit identified a number of gaps between the supplier's manufacturing process and ISO 900I Quality

 Management System requirements which had the potential to impact product and service reliability.
- 4. The audit of LU maintenance teams' implementation of the requirement of the Electricity at Work Regulations was concluded as 'requires improvement'. Risk assessments to justify live working were not available in all cases, the means of proving circuits are dead did not meet HSE guidance and some of the equipment used when working with electrical systems was not adequately inspected or maintained. In response, improvements have been made in the documentation and assessment of risk for live working for our signals maintenance team and in the tracking of training records.
- 5. An audit of compliance with the Display Screen Equipment Regulations was concluded as 'adequately controlled'. This conclusion reflects the work undertaken to strengthen the management system since the previous 'poorly controlled' audit.

More people will travel actively in London







Healthy streets



Healthy streets cheack for designers

The Healthy Streets check for designers (the Check) is a tool that reviews whether proposed changes to the street will result in improvements towards the IO Healthy Streets Indicators. It aids designers in aligning to the Healthy Streets Approach.

The use of the Check is mandatory for projects of more than £200k on the TfL Road Network and Liveable Neighbourhood schemes within the Healthy Streets investment portfolio. We encourage it to be used for schemes we fund but that are implemented by London boroughs (eg Local

Implementation Plan schemes). While the Check was being embedded in 2018/19, only those eligible projects with an estimated final cost in excess of £200k were included as part of it.

The Check provides a score for both the existing street layout and proposed design, with the uplift demonstrating the scale of the improvement of the street for people's health. It was introduced in 2018/19, with a target of 10 percentage points average improvement across all eligible schemes.

Number of Checks on the TfL Road Network

	QI 2018/19	Q2 2018/19	Q3 2018/19	Q4 2018/19	Full year
Schemes with a completed check	2	6	3	1	12
Average percentage point uplift across schemes	7	11	16	2	II.

Scheme average RAG rating

Red	Average uplift across the schemes is <7 percentage points
Amber	Average uplift across the schemes is 7–9 percentage points
Green	Average uplift across the schemes is >10 percentage points

A total of eligible I2 projects completed the Check in 2018/19. The average uplift was II percentage points, which exceeded the target. The scope of the Check has been expanded in 2019/20 to include the TfL Road Network and Liveable Neighbourhood projects within the Healthy Streets portfolio regardless of estimated final cost (EFC), and which make a material change to the street environment. This means, for example, that schemes proposing to change traffic signal timings are excluded. This should also increase the number of projects for which the Check is applicable in 2019/20

Appendix: Sandilands investigation recommendations applicable to TfL

Recommendation	Progress to date
UK tram operators, owners and infrastructure managers should conduct a systematic review of operational risks and control measures associated with the design, maintenance and operation of tramways.	Complete: Together with Tram Operations Ltd (TOL) we are represented on the UK Tram Industry Sandilands Sub Committee, established to consider the RAIB findings and take action on behalf of the UK tram industry.
	Our (together with TOL) review of route risk assessments and our network risk model has been shared with the wider UK tram industry. The industry has reviewed all risk assessments within the industry to agree a standard approach, a standard model has been developed and verified. it is now being rolled out. In support of the model we have also agreed the arrangements to collect industry incident and accident data. National roll out for the risk model and data model is now ongoing.
[RAIB recommendation 2. Links with RAIB Recommendation I, 10, and TfL Recommendation 5]	We presented an overview and findings of Risk Model work to Rail Safety and Standards Board Risk Management Forum in June 2018. The model was revised again in March 2019.
UK tram operators, owners and infrastructure managers should work together to review, develop, and install suitable measures to automatically	In progress: The tender process for the installation of a new safety system on the London Trams network that will automatically apply the brakes should the speed limit be exceeded at high risk locations, continued.
reduce tram speeds if they approach higher risk locations at speeds which could result in derailment or overturning.	The Invitation to Tender was issued 3I July and the contract was awarded to Engineering Support Group limited on I4 December 2018. The system will be installed and in operation by the end of 2019, including a period of training and familiarisation with tram drivers ahead of it becoming fully operational. TOL are an active stakeholder in this. The new system will automatically bring a moving tram to a controlled stop if it were to exceed the speed limit at a designated location. The system will also automatically alert the operations control centre.
[RAIB recommendation 3. Links with TfL recommendation 2]	The system will initially be configured to priority locations as suggested by the RAIB but will have the flexibility to be introduced elsewhere on the tram network. The feasibility and scoping work for this system has been shared with other tram owners and operators to assist in the development of a programme for installing similar suitable systems to their networks.

Recommendation

Progress to date

UK tram operators, owners and infrastructure managers should work together to research and evaluate systems capable of reliably detecting driver attention state and initiating appropriate automatic responses if a low level of alertness is identified.

In progress: Working closely with TOL, LT has procured and commissioned the 'Seeing Machine Guardian' driver protection system fleet wide. This system uses proven facial movement technology to monitor driver fatigue and distraction. The system was fully installed across the LT fleet in October 2017.

An additional feature of the Guardian system is that it is programmed to alert drivers if the maximum speed goes above 70kph.

TOL were closely involved in the selection and implementation of this system and played the major role in securing driver support.

LT and TOL have already hosted several delegations, including UKTram and others, to demonstrate the technology in operation. While the systems does not apply the brakes automatically, the Office of Rail and Road (ORR) recognses the safety benefits the system has brought to London Trams.

This system is designed to detect driver inattentiveness and provide an alert, but does not, itself, apply the brakes, as suggested as an option in the recommendation. As detailed in recommendation three, an automatic braking system has been procured and will be installed by the end of 2019 as a separate measure. Research work being undertaken by UK Trams is exploring what an appropriate automatic response would be if a low level of driver attentiveness is detected, such as the application of brakes. TfL will review this research to ensure the system in use is compatible with the outcomes

[RAIB recommendation 4]

UK tram operators, owners and infrastructure managers, in consultation with the DfT, should work together to review signage, lighting and other visual information cues available on segregated and off-track areas required by drivers on the approach to high

risk locations.

In progress: UK Tram commissioned a review of systems capable of reliably detecting driver attention state and initiating an appropriate automatic response if a low level of alertness is detected. We will evaluate the systems identified by the review when it is published to see if the Guardian system fully implements this recommendation or if further work is needed.

We undertook a comprehensive review of tram speeds and speed signage across its network.

As a result the following measures were put in place by September 2017. TOL are an active and engaged stakeholder on this initiative:

- The maximum tram speed on the network was reduced by I0kph, from 80kph to 70kph. The effect is that the potential for coasting in high speed areas has been removed, and that continual speed management is required in these low workload areas so increasing driver alertness.
- 2. Additional step down speed signage was implemented in all locations where speeds reduced by more than 20kph, enhancing driver visual cueing and orientation.
- 3. Where speed signs are located immediately in advance of higher risk locations, e.g. a tram stop or a curve with low approach visibility, the sign has been enhanced with the addition high visibility outer border as an additional visual cue to drivers of an approaching hazard.

iTram

We will implement iTram to provide audible in-cab over speed alerts. iTram is a performance monitoring tool that as well as driving safety improvements by trend analysis of tram speeds, also utilises GPS technology to provide over speed warnings to drivers at all points across the network. It is therefore an enhancement on the Guardian system which can only alert drivers if they exceed the maximum speed limit.

Fitment across the fleet will be completed by December 2019

Recommendation	Progress to date
	Review of Visual Cueing Together with TOL we have completed a comprehensive Route Hazard Analysis. The conclusion is that the already completed installation of additional speed signage work improves driver visual cueing on the network. Conceptual designs for enhanced visual cuing in Sandilands tunnel are under TOL driver consultation.
	Tunnel Lighting Post the Sandilands incident we installed additional temporary lighting on the approach to the Sandilands tunnel, while our road tunnel lighting experts developed a permanent solution.
	The new design will adopt best practice from the automotive industry to reduce the impact of glare on driver's eyes both when entering and exiting the tunnel. Cat's eyes have been installed on a trial basis. Work is expected to be complete on the improved tunnel lighting by December 2019.
[RAIB recommendation 5. Links to TfL Recommendation I]	We are also trialling illuminated warning signs, similar to those used on roads to warn drivers their speed is above the limit. The effectiveness of these signs will be evaluated in summer 2019 and the feedback will be shared with the UK tram industry.
UK tram operators and owners should, in consultation with appropriate tram manufacturers and other European tramways, review existing research and, if necessary, undertake further research to identify means of improving the customer containment provided by tram windows and doors.	Complete: We commissioned the manufacture and testing of several prototype windows that could provide an appropriate level of additional containment. These prototypes were assessed against the conditions likely to have been encountered during the Sandilands incident, and taking into account any affect they may have on ease of access for the emergency services.
	We concluded that mainline rail crash worthiness standard GM/RT2I00 is more likely to offer protection against the conditions experienced during the Sandilands event. Strengthening film on top of the existing tempered glass was selected as the immediate solution to strengthen glazing on trams.
	Following the extensive testing with safety experts and a new higher specification film that is 75% thicker (from I00microns to I75microns) has been fitted to all doors and windows to improve containment.
[RAIB recommendation 6. Links to TfL Recommendation 8]	We are investigating the practicalities of modifying tram doors and we will consider the recommendations made by the RAIB when designing new vehicles in the future.
UK tram operators and owners should install (or modify existing) emergency lighting so that the lighting cannot be unintentionally switched off or disconnected during an	In progress: In conjunction with industry experts, we have formulated a Technical Specification for the retrofitting emergency lighting to its fleet. The system will be fully autonomous, and will operate independently of the trams battery system in the event of an emergency.
emergency. [RAIB recommendation 7]	A new emergency lighting system, that will operate independently of the trams' battery in the event of an emergency, has been procured and will be installed over the summer of 2019.
	TOL are an active and engaged stakeholder on this initiative.
UK tram operators and owners should review options for enabling the rapid evacuation of a tram which is lying on its side after an accident.	In progress: We continue to work with tram operators and tram manufacturers to identify and evaluate options to achieve this objective.
[RAIB recommendation 8]	

	December to date
Recommendation	Progress to date
TOL and LT should commission an independent review of its process for assessing risk associated with the operation of trams.	Complete: The network risk model and route risk assessments have been reviewed and updated. They have been shared with the wider UK tram industry and we also presented an overview and findings of Risk Model work to Rail Safety and Standards Board Risk Management Forum in June 2018. Work has also been completed on our tram crossing risk assessments for Croydon town centre.
	A joint management process for the embedment of the models has been developed. They remain under regular review. The most recent review of the LT Risk Model was completed in March 2019.
[RAIB recommendation I0. Links with RAIB recommendation 2]	The industry is reviewing all risk assessments within the industry to agree a standard approach. The LT/TOL risk assessments will be further reviewed and revised in line with this approach.
TOL should review and, where necessary, improve the management of fatigue risk affecting its tram drivers with reference to the ORR's good practice guidance. [RAIB recommendation II]	In progress: TOL are implementing a safety improvement plan designed to address the intent of this recommendation through their own internal safety governance arrangements.
TOL should commission an external organisation to review, the way that it learns from operational experience. [RAIB recommendation 12]	Complete: TOL have implemented a 'Just Culture' Programme designed to address the intent of this recommendation through their own internal safety governance arrangements.
TOL and LT should review and improve the process for managing public and employee comments that indicate a possible safety risk.	Complete: We have reviewed our customer complaints procedure and implemented improvements to ensure that any safety issue raised by a customer is dealt with efficiently and thoroughly across the TfL network.
[RAIB recommendation I3]	
TOL and LT should review and improve their processes for inspecting and maintaining on-tram CCTV equipment to greatly reduce the likelihood of recorded images being unavailable for accident and incident investigation. This recommendation may apply to other UK tram operators.	Complete: All LT Bombardier fleet has been fitted with new CCTV image recorders. CCTV health checkers which actively monitor the status of recording units and identify faults. The CCTV recording equipment on all Bombardier trams (type involved in Sandilands) was replaced and upgraded to digital shortly after the overturning. The equipment on Stadler trams, which make up the remainder of the fleet, had adequate functionality. Further work to upgrade CCTV on the wider fleet will be completed by May 2019.
[RAIB recommendation I4]	
TOL and LT should review and revise where required existing tram maintenance and testing documentation to take account of experienced gained, and modifications made, since the trams were brought into operational service. [RAIB recommendation 15]	In progress: LT has undertaken a comprehensive review of its written standards, maintenance processes and identified quality deficiencies. LT has appointed an independent entity to author new written standards, maintenance processes and forms addressing all quality gaps. This process will be in two phases. Sixteen critically prioritised standards and associated documents have been delivered in the first phase. The remaining standards and processes will be addressed through our routine arrangements for the maintenance of the management system.

Recommendation	Progress to date
Review available driver cues in relation to braking points on approaching a curved section of the tramway.	Complete: Overall network top speed has been reduced from 80kph to 70kph. Additional 70kph signs have been provided to aid driver awareness of the permitted maximum speed.
	A design and signal sighting exercise has been concluded and the provision of additional step down speed signage to aid driver speed awareness and visual cueing is complete.
[TfL recommendation I. Links to RAIB recommendation 5]	Additional visibility signs have also been provided, which will heighten driver speed awareness in high risk areas.
Review available driver cues in relation to braking points on approaching a curved section of the tramway.	Complete: Overall network top speed has been reduced from 80kph to 70kph. Additional 70kph signs have been provided to aid driver awareness of the permitted maximum speed.
	A design and signal sighting exercise has been concluded and the provision of additional step down speed signage to aid driver speed awareness and visual cueing is complete.
[TfL recommendation I. Links to RAIB recommendation 5]	Additional visibility signs have also been provided, which will heighten driver speed awareness in high risk areas.
Review of arrangements for the monitoring and management of speeding.	LT has commissioned the installation and commissioning of the 'iTram' system, which will provide driver over-speed alerts network wide. iTram will also provide oncoming hazard awareness to drivers of high risk areas. The system has been installed on all 22 Bombardier trams and the
[TfL recommendation 2. Links to RAIB recommendation 3]	roll-out on Stadler trams began in April 2019.
Review of traction brake controller (TBC) driver's safety device design.	Complete: LT has procured and commissioned the 'Seeing Machine Guardian' driver protection system fleet wide. This system provides proven driver fatigue and distraction management via facial recognition technology. It was fully installed across the London Trams fleet in
[TfL recommendation 3]	October 2017. ORR recognises the safety benefits that the system has brought to London Trams.



Agenda Item 6

Safety, Sustainability and Human Resources Panel

TRANSPORT FOR LONDON EVERY JOURNEY MATTERS

Date: 10 July 2019

Item: Workplace Violence and Aggression Summit update

This paper will be considered in public

1 Summary

1.1 This paper updates the Panel on the Workplace Violence and Aggression (WVA) summit held on 19 March 2019.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Background

- 3.1 On 19 March 2019, TfL held its first pan-TfL WVA summit. It was attended by over 120 people including operational and customer-facing staff from across TfL, our contractors, trade unions, policing partners, voluntary organisations, managers, members of the Board and the Health and Safety Executive.
- 3.2 The summit is part of the on-going pan-TfL strategic review of our approach to workplace violence and aggression, which has been created in response to the concerns being raised by our staff about their fears and experience of aggression, hate crime and intolerance.

4 The Summit

- 4.1 The Deputy Mayor for Transport and the Commissioner both spoke at the summit and stated that it is vital our people, including those directly employed by TfL, our suppliers and contractors are safe and feel supported. The British Transport Police and Metropolitan Police Service both reiterated that tackling violence and aggression against staff continues to be a key priority.
- 4.2 The issues and ideas raised at the summit will inform our strategic approach to tackling WVA and supporting our staff. This work includes developing a pan-TfL strategy to tackle WVA, in collaboration with staff, policing partners and subject matters experts.
- 4.3 On 21 June 2019, we held a staff engagement workshop to inform the development of the WVA strategy with operational and customer-facing staff from across TfL and our contractors. This workshop built on the outputs from the summit and drew on the experiences and ideas of our operational and customer-facing staff to shape proposals and plans.
- 4.4 Trade Unions' input in to the development of our strategic approach will be further developed at the regular quarterly meetings held with the Mayor.

5 Next Steps

5.1 The final WVA strategy will be presented to the Safety, Sustainability and Human Resources Panel on 4 September.

List of appendices to this report:

None

List of Background Papers:

None

Contact Officer: Siwan Hayward OBE, Director of Compliance, Policing and On-

street Services

Number: 020 3054 2261

Email: <u>siwan.hayward@tfl.gov.uk</u>

Agenda Item 7

Safety, Sustainability and Human Resources Panel

Date: 10 July 2019

Item: Responsible Procurement



This paper will be considered in public

1 Summary

1.1 We are required to publish a new Modern Slavery statement under the Modern Slavery Act 2015 for the Financial Year 2019/2020, outlining what steps we have taken to investigate and mitigate the risks of modern slavery in our business or supply chains. The Statement is required to be approved by the Board before publication; that approval will be sought at the Board meeting on 24 July 2019. The draft statement is included as Appendix 1.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Modern Slavery Statement

- 3.1 The Independent Anti-Slavery Commissioner estimates there are at least 13,000 modern slaves in the UK, and global estimates suggest more than 40 million people worldwide. TfL is committed to identifying risks of modern slavery and forced labour in its supply chains, and working with its suppliers to proactively address these risks.
- 3.2 We published our most recent Modern Slavery statement for the Financial Year 2018/19 on TfL's website on 20 August 2018. We are required to produce a new statement for 2019/20 which needs to be published by 30 September 2019, following Board approval. A list of the companies within the TfL Group that the statement will apply to is included in the statement. Crossrail will be providing its own statement. The 2018/19 TfL statement will be removed from our webpage and archived internally.

4 2018/19 Activity

4.1 In 2018/19 we continued our focus on the identified high-risk categories of uniforms, electronics and facilities management.

Uniforms

- 4.2 A key requirement of TfL's uniform contracts is that the factories in China and Bangladesh which manufacture the garments undergo independent, third party audits annually. Non-compliances are captured in audit reports, and followed up through corrective action plans and evidence of resolution. Our efforts to lead by example in addressing the risks posed within the international garment supply chain were recognised in a 2018 report by the International Corporate Accountability Roundtable and The Corporate Responsibility (CORE) Coalition which found TfL's procurement of uniforms is more socially responsible and advanced in comparison to other central government departments featured in the report.
- 4.3 We do however recognise the limitations of social audits in addressing root causes of non-compliances. Therefore our uniforms contract also requires our supplier to undertake capacity building activity at the manufacturing sites, such as workers undertaking training on worker rights, health and safety, and Bangladesh labour laws, including how and when to raise grievances. One factory is partnering with a local university to provide training for interns. This capacity building work develops the knowledge and capabilities of vulnerable workers whilst empowering them to better understand their rights in the workplace.
- 4.4 TfL has also worked closely with the Fairtrade Foundation to ensure that the cotton used in their t-shirts and shirts is sourced from certified producers, meaning that farmers and workers get a fair deal for their work. This was another first in the UK for a public sector organisation.

Cleaning

4.5 Given the high number of agency and migrant workers employed in the cleaning industry, we have taken a proactive approach to managing the risks of worker exploitation. Our facilities management contract remains on track to meet its KPI target of 95 per cent of directly employed labour by September 2019.

External Engagements

4.6 TfL has been recognised as exhibiting leadership in the UK public sector with regards to its approach to addressing modern slavery and human rights risks in its supply chain. We remain committed to benchmarking with peers to both share our approaches and also to ensure we are aware of emerging risks and any developing best practice. We were part of the panel at the inaugural 2019 International Conference on Tackling Modern Slavery, Forced Labour and Human Trafficking in Public Sector Supply Chains, run by the Home Office, Ethical Trading Initiative (ETI) and the Organisation for Security and Cooperation, on 27 March 2019. More than 150 delegates attended, sharing lessons learned, best practice, and approaches to managing the common risks faced in public sector supply chains.

- 4.7 On 29 March 2019 we presented at a Commonwealth Parliamentary Association seminar on modern slavery to an audience of members of parliament from Canada, the Turks and Caicos Islands, Bangladesh and Hong Kong.
- 4.8 We also delivered a workshop session at the EcoProcura Conference in October 2018 in The Netherlands, where we communicated our approach to ethical sourcing. The conference was attended by delegates representing public sector purchasing authorities from across the world focussing in particular on how public purchasing can procure ethically, sustainably and responsibly.

5 2019/20 Activity

- 5.1 In the coming year we will build on the strong foundations of our approach, to further embed it in existing areas of focus, and roll it out in new spend categories where risks are identified.
- 5.2 To ensure that the processes we put in place with our suppliers and their supply chains do make a difference in improving the working conditions of our supply chain workers, we will develop a robust assurance process for modern slavery in 2019/20. Working with our Internal Audit team, the approach will be dependant on the level of risk identified for our suppliers and include a range of activities from compliance checks of their Modern Slavery statements, to questionnaires for our key suppliers, to desk-based audits of management arrangements in relation to modern slavery.
- 5.3 We will enter into dialogue with those suppliers whose contracts with TfL include the Electronics Watch due diligence and monitoring clauses and collaborate with them to establish due diligence and mitigation strategies to address human rights risks in the supply chain. To raise awareness and share the Electronics Watch approach to Commercial staff, a training session took place on 21 June 2019.
- 5.4 We have identified the construction workforce as one at risk of forced labour and exploitation, and we will be developing an approach for use when letting and managing construction contracts.
- 5.5 In 2019/20, TfL will roll out Responsible Procurement training which will enhance the knowledge of key Commercial staff to manage the risks of modern day slavery, through ensuring that ethical sourcing risks are considered in the early stages of procurement when developing business cases and category management strategies. A combination of eLearning and classroom based learning will be available to TfL Commercial. It is expected that the former will be mandated to all TfL Commercial staff.

6 GLA Group Responsible Procurement Policy

- 6.1 The revised GLA Group Responsible Procurement Policy was approved by the Mayor and published in 2017. The revised Policy includes six themes:
 - (a) enhancing social value;
 - (b) encouraging equality and diversity;
 - (c) embedding fair employment practices;
 - (d) enabling skills, training and employment opportunities;
 - (e) promoting ethical sourcing practices; and
 - (f) improving environmental sustainability.
- 6.2 This high level strategic policy sets out the GLA Group's plans, ambitions and commitments for ensuring continuous improvement in London. In March 2019 the Responsible Procurement Implementation Plan (RPIP) detailing the actions and targets to be delivered was published. To support TfL Commercial to deliver these ambitions, a Commercial-led Responsible Procurement Delivery Group (RPDG) was established in March 2019 with senior representation from each Commercial team, as well as representation from our HSE and Diversity and Inclusion teams. The RPDG are accountable for our ambitions within the RPIP.
- 6.3 Our key Responsible Procurement achievements in 2018/19 were:
 - (a) 3728 workers in our supply chain benefitted from the current London Living Wage rate;
 - (b) 521 new apprenticeship starts in our supply chain, of which 50 per cent are from a BAME background;
 - (c) TfL's Supplier Skills Team has ran three pre-employment programmes involving over 50 candidates, focused on addressing underrepresentation and facilitating social mobility;
 - (d) 181 Commercial staff attended the RP Bitesize Training. By the end of 2019, all key commercial staff in TfL will receive training in the application of Responsible Procurement and social value practice and principles;
 - (e) we refreshed our procurement approach to improving Equality,
 Diversity and Inclusion performance in relevant contracts and trialled
 this new approach within Q4 2018/19; and
 - (f) the GLA Group Collaborative Procurement Team, hosted by TfL, has undergone an internal assessment against the ISO 20400 sustainable procurement standard. External assessment is planned for Q4 2019/20.

List of appendices:

Appendix 1: Draft Modern Slavery Statement 2019/20

List of Background Papers:

None

Contact Officer: Simon Kilonback, Chief Finance Officer

Number: 020 3054 8941 Email: simonkilonback@tfl.gov.uk





Period covered by this statement

Transport for London (TfL)'s financial year end occurs on 31 March. This statement covers the financial year 1 April 2018 – 31 March 2019.

Organisations covered by this statement

This statement covers Transport for London, its subsidiary company Transport Trading Limited and the following subsidiary companies of Transport Trading Limited:

Crossrail 2 Limited

Docklands Light Railway Limited

London Buses Limited

London Bus Services Limited

London River Services Limited

London Transport Museum Limited

London Transport Museum (Trading) Limited

London Underground Limited

LUL Nominee BCV Limited

LUL Nominee SSL Limited

Rail for London (Infrastructure) Limited

Rail for London Limited

Tramtrack Croydon Limited

TTL Blackhorse Road Properties Limited

TTL Earl's Court Properties Limited

TTL Kidbrooke Properties Limited

TTL Landmark Court Properties Limited

TTL Northwood Properties Limited

TTL Properties Limited

TTL Southwark Properties Limited

TTL South Kensington Properties Limited

Tube Lines Limited

Victoria Coach Station Limited

More information on TfL and its subsidiaries can be found on our website: http://content.tfl.gov.uk/tfl-subsidiary-organisation-january-2019.pdf

Introduction

This Statement is designed to satisfy the requirements of Section 54 of the Modern Slavery Act 2015, by informing our customers, suppliers, staff and the public about TfL's policy with respect to modern slavery, human trafficking, forced and bonded labour and labour rights violations in its supply chains and the steps taken to identify,

prevent and mitigate the risks. This is TfL's fourth annual statement to be published under the Act and relates to the period 1 April 2018 through to 31 March 2019.

TfL is aware of the recent independent review of the Modern Slavery Act 2015 and notes the recommendations it makes in reforming Section 54 of the Act. TfL was the first public sector organisation to join the Ethical Trading Initiative (ETI), a leading alliance of companies, trade unions and non-governmental organisations (NGOs) that promotes respect for workers' rights around the globe. TfL was also the first public body to join Sedex, home to one of the world's largest collaborative platforms for sharing responsible sourcing data on supply chains and used by companies to manage their performance around labour rights, health and safety, the environment and business ethics. Leading by example, we use both these memberships to maintain awareness of best practice and current developments, benchmark with other organisations and externally verify our approach.

Our organisation

TfL is the integrated transport authority responsible for delivering Mayor of London, Sadiq Khan's strategy and commitments on transport. We run the day-to-day operation of the Capital's public transport network and manage London's main roads. Every day, more than 31 million journeys are made across our network. We do all we can to keep the city moving, working and growing and to make life in our city better.

Managing TfL's supply chain is the direct responsibility of the Chief Procurement Officer, reporting to the Chief Finance Officer, who reports to the Commissioner of TfL. During 2018/19, TfL spent in excess of £6bn on goods, services and works required to deliver and upgrade services across London Underground, Surface Transport, Professional Services and Technology and Data.

Our policies in relation to slavery and human trafficking

In June 2017, the Mayor published the <u>Greater London Authority (GLA) Group</u> Responsible Procurement Policy.

This document is a high level strategic policy setting out the GLA Group's plans, ambitions and commitments for ensuring continuous improvement in London, delivered through all the Group's procurement activities, which supports the delivery of the Mayor's commitments and strategies. It reflects best practice and demonstrates our procurement activities meet all legislative requirements, including the Modern Slavery Act 2015.

The Mayor's Policy commits us to promote ethical sourcing by:

 adopting the nine provisions of the ETI Base Code¹, or equivalent, as the standard we expect of our suppliers to support working conditions that are legal, fair and safe; and

.

¹ https://www.ethicaltrade.org/eti-base-code

 adopting a risk and opportunity-based approach to identify contracts and areas of spend where there may be a high risk of poor working conditions, human rights abuses or negative impacts on security and crime. We will seek to improve transparency within the supply chain, and work with suppliers to improve any poor performance identified as part of a process of continuous improvement, reflecting existing and emerging legislation and guidance.

To support the business in implementing the Policy, TfL hosts the GLA Group's Central Responsible Procurement Team within its Commercial function. In March 2019 the team published the <u>Responsible Procurement Implementation Plan</u>. The plan sets out the actions TfL, along with the wider GLA Group, will prioritise to deliver on the commitments of the GLA Group Responsible Procurement Policy, including the promotion of ethical sourcing practices.

Risk assessment, prevention and mitigation

Through robust procurement and governance processes, including the inclusion of the Responsible Procurement checklist in developing an approach to market, Commercial staff across TfL are able to identify categories and contracts which are likely to present a high risk of human rights abuses.

The principal categories which TfL deems as carrying material risks of human rights abuses are uniforms, electronic equipment, cleaning and construction. TfL deems the corresponding source countries in its supply chains for these categories to be:

Category	Country	Identified Sector Risks
Uniforms	Bangladesh, China	High risk countries as identified by the government response, vulnerability and prevalence ratings in the Global Slavery Index ²
Electronic equipment	East Asia, China, India, Eastern Europe, Mexico	Labour intensive, often low- skilled work; mining of raw materials in high risk countries
Facilities Management – including cleaning and catering services	United Kingdom	High numbers of agency and migrant workers
Construction	United Kingdom	Migrant workers, documents instances of forced or bonded labour, multi-tiered supply chains, low paid roles

² The Global Slavery Index provides country analysis and ranking of modern slavery prevalence as well as the actions governments are taking to respond. https://www.globalslaveryindex.org/2018/data/country-data/bangladesh/

https://www.globalslaveryindex.org/2018/data/country-data/china/

Due diligence processes

Uniforms:

While providing uniform fit for a world class transport system, TfL is actively working to ensure that workers producing the garments are treated fairly wherever they may be in the world. TfL has been including clear requirements safeguarding human rights and working conditions in relevant contracts for many years and with our supply contract for London Underground uniforms we have set new levels of excellence for supply chain due diligence in public procurement. A 2018 report by the International Corporate Accountability Roundtable and The Corporate Responsibility (CORE) Coalition³ found that "in comparison to the central Government departments featured in this report, TfL's procurement practice is significantly more socially responsible and advanced."

TfL's uniforms are manufactured in Bangladesh and China. Each factory is required annually to undergo an independent, third party social audit against the nine principles of the ETI Base Code. Following each audit, a time-bound corrective action plan is agreed with the factory to address any areas of non-compliance. Audit results are viewed and corrective action plans tracked online through the Sedex system.

However, we also recognise the limitations of social audits in addressing root causes of non-compliances. Therefore our uniforms contract also requires our supplier to undertake capacity building activity at the manufacturing sites.

Workers have undertaken training on worker rights, health and safety and Bangladesh labour laws, including how and when to use complaint letters for raising grievances. One factory is partnering with a local university to host interns, with the intention for training to be provided for interns to qualify as technicians and designers. This capacity building work builds the knowledge and capabilities of vulnerable workers, whilst empowering them to better understand their human rights in the workplace.

TfL also worked closely with the Fairtrade Foundation to ensure that the cotton used in the uniforms is sourced from certified producers, meaning that farmers and workers get a fair deal for their work. This was another first in the UK for a public sector organisation such as TfL.

Electronic equipment:

TfL is a founding member of Electronics Watch an independent monitoring organisation that assists public sector buyers to meet their responsibility to protect the human rights of electronics workers in their global supply chains - and remains an engaged member, attending the annual Conference to further benefit from the support network it provides. We have included Electronics Watch contractual clauses in a number of key Information Communication Technology (ICT) contracts identified

³ https://corporate-responsibility.org/wp-content/uploads/2018/09/ICAR-Core-Report-Who-Made-Our-Clothes-UK-Public-Sector-Apparel-Procurement.pdf

as presenting a higher risk of potential human rights abuses. The contract for Narrow Band Radio System replacement on our bus network has included Electronics Watch clauses which are closely monitored as part of the management of the contract.

Factory locations of manufacture have been provided and the supplier will provide audit data to identify high risk areas of the supply chain which require further intervention.

Upcoming procurements of the renewal of our ticketing payment solution, Oyster Cards, and the ICT Hardware contract have been published with Electronics Watch clauses integrated, the outcomes of which will be monitored by TfL to ensure our suppliers undertake a robust risk assessment upon contract award and put in place suitable mitigation strategies over the course of the contract.

Cleaning services:

Given the high number of agency and migrant workers employed in the cleaning industry, TfL has continued to take a proactive approach to managing the risks of worker exploitation. The contract remains on track to meet the KPI target of 95 per cent of directly employed labour by September 2019.

Construction:

Our membership of the Supply Chain Sustainability School (SCSS) and membership of their labour leadership group enables us to discuss and share best practice on the industry-wide risks facing the built environment sector. Construction sites, in particular, pose a significant risk of poor employment practices through the use of agency workers and multi-tiered supply chains. Through our involvement with the SCSS, we are able to gain greater transparency on the issues faced by our supply chain and work closely with them to mitigate the risks of human rights abuses on construction sites. We will be developing an approach for use when letting and managing construction contracts to ensure the real risk of modern slavery in this sector is minimised.

External Engagements:

We recognise the importance of tackling the risks of modern slavery with our industry peers and are committed to benchmarking and best practice sharing at conferences, events and workshops.

TfL was a part of a panel at the 2019 International Conference on Tackling Modern Slavery, Forced Labour and Human Trafficking in Public Sector Supply Chains, run by the Home Office, ETI and the Organisation for Security and Co-operation. More than 150 delegates attended, sharing lessons learned, best practice and approaches to managing the common risks faced in public sector supply chains.

We also attended the EcoProcura Conference in October, an event held in Nijmegen for European cities and public authorities to exchange and share best practice in Sustainable Public Procurement, and delivered a workshop session communicating our approach to ethical sourcing. The conference was attended by delegates

representing public sector purchasing authorities from across the world focussing in particular on how public purchasing can procure ethically, sustainably and responsibly.

TfL hosts a key supplier forum every six months, giving the Responsible Procurement team a platform to communicate areas of focus to over 60 key suppliers so our supply chain remains fully informed on our approach to ethical sourcing. It is also an opportunity for our key suppliers to provide valuable feedback so we can collaboratively manage the risks of slavery and human trafficking.

Effectiveness, measured against appropriate KPIs

TfL reports annually to the ETI detailing our annual activity to identify and manage ethical sourcing risks. Last year, our report was given 'Improver' status and the detailed feedback is used to continuously strengthen our approach each year. The activities we undertake to address risks of modern slavery in our supply chain, as detailed in this statement, will be included in our future reporting to the ETI, with a view towards moving up to 'Achiever' status.

As part of TfL's uniform contract, the factories are required to undergo an independent audit every twelve months. Audit reports and corrective action plans are provided by the auditors to TfL, and we track the resolution of non-compliances through the Sedex system, an ethical auditing approach and platform which encourages consistent and collaborative sharing of audit results. To reinforce the effectiveness of auditing, the supplier has trained quality control auditors in SA8000, a social certification for factories and organisations, which increases the coverage of monitoring working conditions through empirical evidence.

TfL's cleaning contract contains a KPI for 80 per cent of cleaning staff to be directly employed, rising to 95 per cent by September 2019. Figure 1 displays the positive trend this KPI has had on the employment relationship of the workers and the effective risk mitigation against labour exploitation this has resulted in.

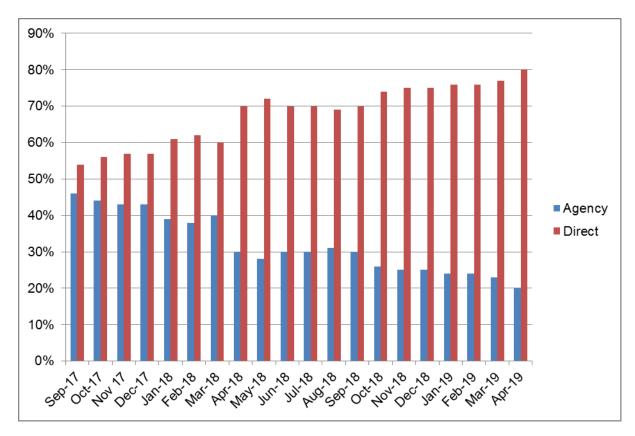


Fig.1 – Positive trend of directly employed workers on TfL's cleaning contract

The GLA Group Responsible Procurement Implementation Plan commits TfL to actively encourage its key suppliers to produce a compliant Modern Slavery Statement and as part of this work, we have reviewed over 60 of our key suppliers for compliance with Section 54 of the Modern Slavery Act 2015. As of March 2019, 66 per cent of TfL's key suppliers have issued a statement compliant to Section 54 of the Act, a 14 per cent increase compared to 52 per cent in August 2017. In 2019/20 we will aim to continue this positive trend by engaging our key suppliers on this issue and developing an approach to address those suppliers who fall short of their obligations.

Training and capacity building

In 2018/19, 181 Commercial staff were trained in the principles of Responsible Procurement. The internal training includes an overview of TfL's approach to ethical sourcing, ensuring that Commercial staff are able to apply a risk-based approach to managing ethical sourcing practices and where to go for assistance and guidance where high risk areas are identified. This year, TfL will roll out further training to enhance the knowledge of key commercial staff to manage the risks of modern day slavery through a combination of e-learning and classroom based training. The training will have a focus on ensuring that ethical sourcing risks are considered in the early stages of procurement when developing business cases and category management strategies.

TfL continues to utilise its membership with the ETI and benefits from the resources it provides, with the contract manager for the London Underground Uniform Contract having undertaken ETI training courses. TfL is an active member of the Public Procurement Working Group, providing input to the recent report on the review of the Modern Slavery Act 2015.

Our goals for 2019/20

In 2019/20 we will continue to improve and refine our approach to managing the risk of slavery and human trafficking in our supply chain. Whilst we are proactively identifying and managing the high-risk areas in our activity, we understand that the risk of modern slavery is significant in a number of key sectors which we contract in, particularly the identified areas of construction, electronics and uniforms and as such recognise that we must continue to ensure robust risk mitigation throughout the breadth of our activity. A particular significant step in doing this will be to map our risk exposure throughout our supply chain and this will be a focus for us in the coming year.

In the year ahead, we will pursue four **key goals for 2019/20**:

- We will develop a robust assurance process for prevention of modern slavery on construction sites. Our aim is to develop our risk mitigation from desk-based monitoring of Section 54 compliance to on-the-ground, empirical evidence of modern slavery prevention measures.
- We will roll out external training to key Commercial staff to support the
 robust implementation of our ethical sourcing approach. This will be
 formed of online and classroom based learning and will ensure commercial
 staff can make procurement decisions with an in depth understanding of
 how to manage against the risk of human and labour rights abuses.
- We will ensure implementation and contract management of Electronics Watch contract terms in ICT contracts upon contract award. The clauses stipulate disclosure of factory locations and we will work closely and collaboratively with our supply chain to understand the risks each location presents and in doing so develop plans to improve the working conditions and workers' understanding of their rights.
- We will undertake an ethical sourcing risk mapping exercise of our supply chain to ensure proactive identification and management of risk and enable effective prioritisation of activity.

This Statement has been approved and published by the TfL Board and will continue to be reviewed at least once annually.

[Name of Signatory]

[Date] 2019

For TfL Board

Agenda Item 8

Safety, Sustainability and Human Resources Panel



Date: 10 July 2019

Item: Energy Strategy Update

This paper will be considered in public

1 Purpose

1.1 The purpose of this paper is to update the Panel on progress related to the TfL Energy Strategy, presented to the Panel in February 2019, including progress against TfL's carbon reduction commitments.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Executive Summary

- 3.1 TfL's Energy Strategy sets out the approach to achieving best value for money from TfL's operational spend and capital investment in energy, while seeking to meet the Mayor's strategic aims for TfL's energy use and reduced CO₂ emissions.
- 3.2 The Energy Strategy was presented to the Panel in June 2018 and February 2019. The wider context of progress against London's overarching emissions targets for transport set in the Mayor's Transport Strategy (MTS) was discussed at the meeting of the Board on 22 May 2019.
- 3.3 This latest update sets out:
 - (a) forecast projections of TfL's direct CO₂ emissions based on the existing Business Plan, and progress against the Mayor's targets and ambitions for TfL's emissions set in the London Environment Strategy (LES) and the MTS;
 - (b) outputs of feasibility work, carried out as part of the Energy Strategy, which could be progressed subject to Business Plan funding or third party financing options; and
 - (c) the outline approach to TfL's future procurement of electricity, in support of the LES ambition for TfL-controlled rail services to be zero carbon energy by 2030.

4 Background

4.1 In the LES, the Mayor sets the overall goal for London to reach zero carbon by 2050, and a trajectory for London's emissions to reach this target through a series of five-year carbon budgets.

- 4.2 Transport was responsible for 8.3 million tonnes of carbon emissions in 2015, approximately 24 per cent of London's total. This proportion is forecast to increase in the short to medium term as emissions reduce more quickly from other sectors.
- 4.3 The MTS sets out the changes required to London's transport network to reach zero emission transport by 2050, both to support the zero carbon London ambition and significantly improve London's air quality. Measures include meeting the MTS's overarching goal of an 80 per cent sustainable mode share, emissions reductions from public transport services and the transition of all remaining journeys to zero emission technologies, as set out for road transport in Figure 1.
- 4.4 Significant progress has been made on the pathway to a zero emission transport network, including the introduction of the Ultra Low Emission Zone in April 2019, introduction of the requirement for all newly-licensed taxis to be Zero Emission Capable in January 2018, and delivery of electric vehicle charging infrastructure, including rapid charging points.
- 4.5 This update focuses on emissions under TfL's direct control approx. 1.2 million tonnes p.a. which fall in both the transport and commercial/industrial sectors of London's carbon budgets.
- 4.6 The MTS and LES include specific ambitions for TfL's emissions in support of the overarching carbon budgets and the three key targets are:
 - (a) TfL bus fleet to emit zero exhaust emissions by 2037 at the latest;
 - (b) 60 per cent reduction in TfL Corporate (primarily Head Office buildings) emissions on 1990 levels by 2025; and
 - (c) TfL-controlled rail services to be zero carbon by 2030.
- 4.7 In addition, in December 2018, the Mayor of London declared a climate emergency following the publication of an Intergovernmental Panel on Climate Change (IPCC) "Global Warming of 1.5 °C" report in October 2018 indicating that there are only 12 years left to implement measures that would avoid catastrophic impacts from global warming. Work under the Energy Strategy identifies opportunities to reduce emissions from TfL's operations over the next 12 years, highlighted by the IPCC as the crucial time to implement measures if catastrophic impacts of climate change are to be avoided.

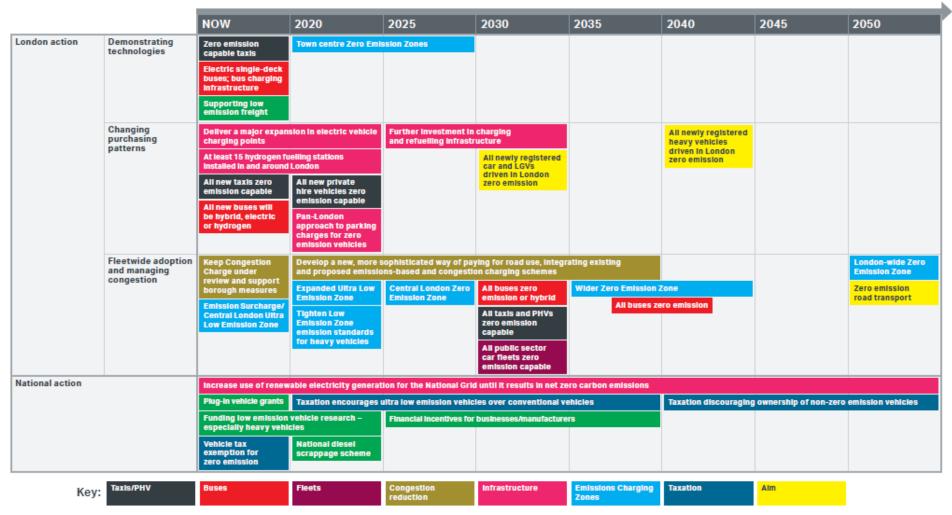


Figure 1: Timeline to Zero Emission Road Transport

Cost

- 4.8 TfL's annual energy cost for gas and electricity is approximately £170m per annum and is made up of various elements; the wholesale commodity typically represents ~45 per cent of the fully delivered cost, with the majority (~55 per cent) made up of Transmission, Distribution and System costs, alongside environmental levies and taxes. Costs are expected to increase year-on-year, reaching £220m by 2025, largely due to annual increases in environmental levies and taxes designed to support national decarbonisation. Environmental levies and taxes currently represent ~£64m of the annual bill and will likely exceed £100m by 2025.
- 4.9 These do not include cost estimates for the bus network once electrified. By 2037, when the bus network is currently planned to be fully electric, we may be using an additional 700 GWh pa. To put this in perspective, TfL currently uses c1,500 GWh p.a., so taken together this would represent a 50 per cent increase in electricity use by 2037. Ongoing electricity costs would be less than is currently spent on diesel as part of our bus contracts.

5 Current Position on Energy

5.1 The baseline forecast of TfL's direct carbon emissions, based on current activities in the business plan, is set out in Figure 2. Emissions are compared against 2005 levels as set out in the LES Evidence Base.¹

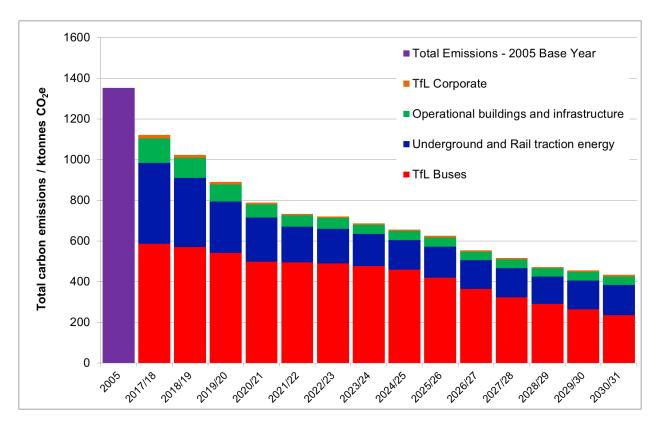


Figure 2: Baseline forecast of TfL's direct CO₂ emissions

https://www.london.gov.uk/sites/default/files/les_appendix_2_-_evidence_base_0_0.pdf

- 5.2 By 2025 TfL's total CO₂ emissions are forecast to reduce by ~54 per cent against 2005 levels, with a 65 per cent reduction from all buildings and infrastructure. The scope of emissions covered by each section of Figure 2 and assumptions behind the forecast are set out below.
- 5.3 **TfL Buses** the Business Plan includes activity in support of the full conversion of TfL's bus fleet to zero emission by 2037, at the latest, to meet the commitment set in Proposal 29 of the MTS. By the end of 2019/20 there will be over 250 electric buses in London's fleet, in addition to hydrogen buses procured through the Joint Initiative for hydrogen Vehicles across Europe (JIVE) programme. Under the current business plan CO₂ emissions will be over 50 per cent lower than current levels, alongside significant reductions in NOx and particulate matter emissions.
- 5.4 TfL Corporate this covers emissions from TfL's head office buildings, support fleet, air travel and the London Transport Museum. These emissions form part of the GLA Group carbon budgets set in the LES. Emissions covered in this area are forecast to reduce by over 60 per cent against the 2005 base, meeting TfL's component of the LES target. Reductions are driven by energy efficiency measures and building rationalisation across TfL's head office portfolio, and conversion of TfL's support vehicles to Ultra Low Emission Vehicles (ULEVs) in support of the MTS for all cars in the support fleet to be ULEVs by 2025. To support wider fleet conversion we are investing in additional charging infrastructure across our operational sites during this financial year.
- 5.5 **Operational buildings and infrastructure** this includes emissions from electricity and gas consumption from TfL's operational infrastructure, including LU and rail stations, depots, and other buildings, street lighting, bus infrastructure and Victoria Coach Station. These emissions are not covered by the GLA Group carbon budgets² but are tracked alongside them.
- The emissions forecast to 2030 takes into account the delivery of 1.1 MW additional solar generation capacity on TfL rooftops via the RE:FIT programme, and currently budgeted delivery of LED retrofit in London Underground stations. However, as with rail traction energy, improvements in grid electricity emissions intensity are the primary driver in emissions reduction.
- 5.7 **Underground and Rail traction energy** TfL's energy consumption for rail traction has increased since 2005 and this is principally due to upgrades to Tube, DLR and Tramlink services and the introduction of London Overground services.
- 5.8 The emissions forecast includes further increases to TfL's energy consumption from the introduction of the Elizabeth line, and further upgrades to London Underground services such as the Four Lines Modernisation and Deep Tube upgrade programmes. Energy efficiency interventions are embedded within LU's upgrade programmes. These include measures on the Deep Tube Upgrade rolling stock for the Piccadilly line.

² Commentary on this exclusion is provided in the LES evidence base (https://www.london.gov.uk/sites/default/files/les_appendix_2 -_evidence_base_0_0.pdf)

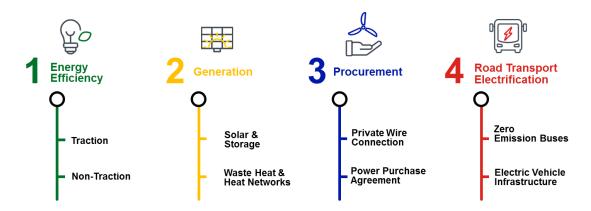
- 5.9 Despite a forecast increase in energy consumption, rail traction CO₂ emissions are forecast to decrease to 2030 in line with reductions in the carbon intensity of the national grid. While grid emissions are forecast to reduce by over 55 per cent by 2030, to meet the LES ambition for TfL controlled rail services to be zero carbon by this date all rail traction energy will need to be procured from zero carbon sources.
- 5.10 Table 1 summarises the status of TfL's MTS CO₂ commitments based on the current business plan.

Table 1: Status of TfL's carbon commitments

MTS / LES Commitment	Status	Notes
TfL bus fleet to emit zero	On track	Investigating potential to accelerate.
exhaust emissions by		
2037 at the latest		
Meeting a 60 per cent	On track	Forecast to meet LES target for both
reduction in TfL		core Corporate emissions and wider
Corporate CO ₂ emissions		infrastructure; high sensitivity to grid
on 1990 levels by 2025		electricity emissions factors
Aim for all TfL-controlled	Action	Dependent on zero emission grid or
rail services to be zero	required	procurement of energy from fully
carbon by 2030		renewable sources

6 Energy Strategy Workstreams

6.1 The Energy programme is formed of four workstreams with individual initiatives, as summarised below. Feasibility has been undertaken on each of these and projects have been prioritised based on their ability to significantly reduce TfL's carbon footprint and operational costs.



Traction energy efficiency

6.2 **Current business plan**: The majority of traction energy efficiency initiatives require a modern train stock and infrastructure to fully realise the benefits, therefore can only be delivered as part of major upgrades. Over the last few years several projects have delivered traction energy efficiency improvements across

the network. For instance, the Victoria Line upgrade completed in 2014 included the reduction of DC power sections on the line to one to optimise the use of regenerative braking. The Piccadilly line upgrade, due to be delivered throughout the 2020s, includes scope to include a number of traction energy efficiency initiatives in addition to efficient rolling stock, as outlined within the sections below.

- 6.3 **Feasibility work undertaken:** There are several interventions that we have explored to reduce the volume of energy consumed through operation of the railway. This is focused on London Underground due to the potential size of the opportunity compared to London Overground or the DLR. Interventions include:
 - (a) Coasting: Where a train accelerates harder whilst running out of the station and then coasts, without compromising runtimes. A dependency for coasting is typically enabling higher ratings of the traction motors on the train and substations as well as ensuring the track is capable of higher speeds in key sections. It also requires the train speed to closely follow a pre-determined profile, necessitating Automatic Train Operation. Therefore, coasting options are only implemented during or following major line upgrades. The upgrade of Piccadilly line includes investigation of coasting as part of its scope. The overall energy saving can be between 15 30 per cent on a line without a loss in service performance (under certain conditions). The Jubilee Line optimisation programme offers an opportunity to include coasting as part of the scope;
 - (b) Regenerative braking: Traditional braking applies friction to slow the train which produces heat. Instead, this energy can be converted back into electricity which can be used by other receptive loads (other trains, if they are accelerating). All lines, except the Bakerloo and Piccadilly, have been upgraded to facilitate the use of this technology as part of signalling upgrades that are required to maximise the benefits of this technology. The upgrade of the Piccadilly line includes this ability within its scope. Regenerative braking can be further optimised by:
 - i. reduction of energy sections; the creation of fewer individual energy segments along a line to enable better utilisation of energy produced through regenerative braking. Traction systems on trains which are capable of regenerative braking coupled with reductions in energy sections are capable of delivering up to 10 per cent energy savings on a line. Victoria line has been reduced to one energy section and resectionalising the Piccadilly line is included within the scope of the upgrade; and
 - ii. inverting substations; allows the transfer of any excess energy produced through regenerative braking to be used elsewhere on the network rather than being lost. London Underground has installed one inverting substation at Cloudesley road on the Victoria line. Further testing and simulation has been completed that predicts a 2-5 per cent potential energy saving in other locations, with higher benefits possible as regenerative braking becomes available on upgraded lines.

Both the reduction of DC segments and the installation of inverting substations can be delivered as stand alone interventions and achieve a direct reduction in energy consumption;

- (c) Energy storage: Advancements in battery technology may mean that previous weight, size, material and duty-cycle challenges of energy storage on the Underground network may be mitigated. Fly-wheel storage has not yet proved viable based on trials in London Underground and other major metros worldwide. There is no clear benchmark for the potential savings realised through energy storage, though feasibility modelling conducted by London Underground indicates 2-3 per cent. Energy storage can be assessed as being around Technology Readiness Level 3 and therefore requires significant development before a demonstrator or operational system can be launched; and
- (d) Low Loss Conductor Rail & Extra Low Loss Conductor Rail:
 Reducing the loss in energy transmission using laminated aluminium conductor rail with a stainless steel cap. The majority of LU lines have implemented this where appropriate leaving minimum outstanding opportunities. The installation cost is high and the financial payback period is long (typically +30yrs); therefore this approach is only used to avoid a costly substation upgrade. This measure has been included within the scope of the Piccadilly line upgrade, subject to further investigation. At present there are no further opportunities available for this technology.
- 6.4 **Next steps for traction energy efficiency**: We have identified improvements that warrant further investigation and could be delivered as stand alone interventions or integrated with ongoing systems upgrades. These include:
 - (a) Installation of inverters across the London Underground network;
 - (b) Reduction in the number of DC sections; and
 - (c) Introduction of coasting where possible

Non-traction energy efficiency

6.5 **Current Business Plan:** Non–traction energy efficiency focuses on the upgrade of electrical and mechanical assets and systems to more efficient alternatives.

Replacement of compact fluorescent lamp (CFL) with light-emitting diode (LED): Docklands Light Railway has completed an LED upgrade of its stations and London Overground will have upgraded all of its stations to LED lighting by the end of this financial year. By the end of financial year 2020/21 we will have upgraded a further 34 London Underground stations to LED. In addition, half of TfL's streetlights (15,000) have been converted to LED and one bus station will be upgraded this financial year.

Consolidation of equipment such as cooling systems: A trial has been carried out at Bond Street to reduce the number of individual cooling systems on site,

whilst maintaining the current performance. This has yielded significant energy and cost savings and could be replicated in other locations.

LED rolling stock replacement: Lights on the rolling stock serving the Bakerloo, Central and Waterloo & City lines will be upgraded to LED as part of the current business plan. These upgrades also offer ambience benefits to improve the passenger environment.

- 6.6 **Feasibility work undertaken:** We reviewed electrical and mechanical assets across the TfL estate to identify further opportunities for energy efficiency that could be delivered as part of the Energy Strategy programme. This review included LED lighting replacements, consolidation of cooling systems and upgrades to building management systems.
- 6.7 **Next steps for non-traction energy efficiency:** A number of opportunities have been identified as being worthy of further consideration. These include:
 - (a) **LED lighting upgrades** across assets which have not yet been upgraded:
 - o all remaining London Underground stations;
 - o all London Underground depot complexes;
 - all streetlights;
 - o all bus stations; and
 - all viable rolling stock.
 - (b) **Consolidation of cooling systems**; approximately a third of London Underground stations could yield energy savings from this type of intervention. Further feasibility work is required to inform designs and obtain reliable quantified benefits to energy consumption; and
 - (c) Development and delivery of a Building Management System strategy across TfL assets to identify and quantify energy saving opportunities across the network.
- 6.8 Beyond the next steps outlined in paragraogh 6.7, we will explore our longer term strategy to transition from gas towards renewable sources of heat in buildings.

Solar Photovoltaics (PV)

- 6.9 **Current Business Plan:** Incorporating solar into the design and delivery of new buildings is the most cost effective means to deliver renewable generation and we are pursuing this approach wherever possible. Recent installations include the new Elizabeth line station in Whitechapel and the Old Oak Common depot. By the end of 2020 we will have completed a further installation on a new Train Modification Unit in Acton depot. We will also install 1.1MWp of solar on existing buildings across the estate. This has been procured through the GLA's RE:FIT framework and the first panels are due to be installed by February 2020.
- 6.10 **Feasibility work undertaken:** At the beginning of this year we completed mapping of the total theoretical potential for solar generation across its rooftops (if every building had solar panels installed across its entire area, without

considering roof condition)³. This exercise found that the largest 100 buildings provided over half of the total theoretical potential, with thousands of smaller buildings (<20 kWp potential) that would be significantly less economic to pursue. We have also conducted a review of the largest available tracksides and land holdings that, along with the largest rooftops, warranted further investigation. These rooftops, tracksides and land plots were combined into a single commission that was issued to the GLA's Decentralised Energy Enabling Project (DEEP) framework, with funding support from the GLA.

- 6.11 The study considered area for panels and shading, as well as land use, planning constraints and environmental designations. Of 250 sites included in the study, more than 50 rooftops, ten tracksides areas and one significant land plot offered potential for solar development. We are progressing the most promising sites to full feasibility during 2019/20 financial year, which will include assessment of rooftop structure and condition, as well as ecological surveys where appropriate. Although trackside portions of land have been identified, operational constraints may still render these unfeasible, so the progression of a 'proof of concept' study will commence this summer.
- 6.12 **Next steps for solar:** The cost of Solar PV installation has dramatically reduced in recent years, however subsidies (the feed in tariff) are no longer available. We have undertaken initial financial appraisals which show that Solar PV could be delivered at a similar or lower cost than TfL's current purchasing arrangements over a period of ~20 years. However, savings are not certain as TfL's energy costs are not fixed/known beyond 2023 and the project would require capital to be spent upfront. The costs of delivery are also heavily dependent on aspects such as roof condition, adherence to planning conditions and the complexities of delivering a solution that does not negatively impact upon the biodiversity / ecology of the site.
- 6.13 We have identified a number of potential opportunities worth further consideration, spread across rooftops, tracksides and land plots. Further development of design is required to understand the deliverability of individual sites. Alongside this technical work, we are considering funding and delivery routes for potential sites.

Waste Heat

- 6.13 **Current Business Plan:** The Business Plan contains funding for the completion of the Bunhill scheme later this year in partnership with Islington Borough Council. This innovative project will capture waste heat from the Northern line and through the use of a heat pump, will supply low carbon heat to ~500 homes and businesses. Funding is also confirmed for the continuation of feasibility to identify potential further schemes through the 19/20 financial year.
- 6.14 **Feasibility work undertaken:** In late 2018 we undertook an internal study of London Underground's vent shafts to identify potential opportunities to utilise London Underground's waste heat. This work identified 56 vent shafts that had

³ This work is additional to the solar programme in delivery described in section 6.9.

- significant enough heat availability and characteristics so as to be potentially viable.
- 6.15 This year, using the GLA's DEEP framework and accompanied financial support, the 56 sites are being further refined, focussing on the technical constraints such as whether there is the required space and access, alongside whether there are potential heat recipients (district heating networks or large buildings) that are close enough so as to be commercially viable. This analysis will conclude at the end of the year and using a sifting process to eliminate lesser opportunities, will deliver full feasibility studies on the best ~5 sites. The success of any project is predicated on a heat network or substantial single heat load being situated within a commercially viable distance and for the third party to be interested in developing a scheme, therefore sites identified through feasibility and ultimately delivered may be limited.
- 6.16 **Next steps for waste heat:** As outlined in section 6.14, we will continue to progress feasibility for heat capture and utilisation across our vent shafts. The cost of delivery and carbon benefit that could be achieved will be borne out of this work.
- 6.17 Once the relative potential for heat capture is understood, we will consider the route to market to deliver these schemes in the most cost and carbon effective way and we are exploring avenues that could enable this to be third-party funded. We are also pursuing secondary benefits, such as increased ventilation or cooling for the network through the delivery of these schemes.

Private Wire

- 6.18 **Current Business Plan:** TfL has provision to explore the feasibility of private wire opportunities within the 2019/20 financial year, but has no committed funding beyond this.
- 6.19 **Feasibility work undertaken:** In early 2019, we conducted an early market engagement exercise to better understand potential opportunities that are close enough to TfL infrastructure to be technically and commercially viable. This attracted significant interest from potential suppliers and from the initial proposals submitted, we conducted a number of meetings for more detailed discussion. To better define the size of the opportunity and to inform any future procurement, a study of third-party land that could be developed for solar generation to directly supply TfL's assets has been commissioned and will conclude this summer. We consider there to be a range of potentially beneficial options worth pursuing.
- 6.20 **Next steps for private wire:** Through the investigations carried out during 2018/19 we believe there could be an opportunity to connect to up to 15MW of total solar generation through multiple new schemes instigated by TfL acting as the potential customer, as well as connecting to existing Energy from Waste plants.

For the development of solar, the available open land across London is likely to be either a Site of Importance for Nature Conservation (SINC) or part of the green belt and could potentially have other planning risks such as being in a flood zone. This will introduce constraints around planning requirements, design options, costs and stakeholder management. The need to engage with external land

owners and private solar developers will also introduce a high level of uncertainty around commercial negotiations which could increase costs and render schemes unviable.

Grid Procurement

- 6.21 **Current Business Plan:** Through the Crown Commercial Service (CCS), we continue to operate a flexible purchasing strategy in relatively short-term markets. Our current procurement authority enables us to purchase out to March 2022. Market engagement and benchmarking with other large consumers confirms that it continues to deliver value for money.
- 6.22 **Feasibility work undertaken:** To enable the purchase of renewable energy we have undertaken market engagement and are currently determining the procurement route and value for money implications of Power Purchase Agreements (PPAs). PPAs have the potential to provide fixed term prices over longer periods and deliver (albeit indirectly) renewable energy for TfL. There are a number of solar and onshore wind projects that have planning permission but need a contract to be built. Therefore, by entering into a long-term contract, we could help bring forward new renewable projects and contribute to decarbonising the electricity grid. Depending on the market fluctuations over that period, this may or may not provide TfL with a financial benefit.
- 6.23 Entering into PPAs presents different risks compared to our current purchasing strategy:
 - (a) Decreasing cost of renewables: Our ambition is to enter contracts that enable more renewable generation to be built on the UK grid. PPAs that deliver this additionality would involve TfL locking in a price for power over a longer period of time than the current strategy (typically for over 15 years). However it is widely anticipated that the cost of renewables will decrease to 2030, therefore timing to market needs to be carefully considered to ensure value for money, as locking prices too early could lead to elevated prices in the future; and
 - (b) **Pricing:** Typically, PPAs would be indexed to RPI, therefore are likely to guarantee a price increase year-on-year or on any volume purchased through this structure. Other PPA contract structures, such as fixed price offers, would be priced to achieve the same net cost over the period of the contract. Conversely, continuing to operate the existing (shorter term) strategy may not result in increased commodity prices.
- 6.24 **Next steps for Grid Procurement:** Our existing strategy through CCS has achieved value for money. However as the market has matured we are now considering introducing some alternative contracting methods. Our ambition is to achieve additional renewable generation on grid and this will take time to deliver. So in the shorter term we may purchase from existing renewable assets to balance risk across the portfolio. By doing so we will still be stimulating the secondary market for renewable generation, which should, in theory, release liquidity into the primary market and therefore stimulate further renewable generation delivery. Further information on how we will progress grid purchasing is discussed in section 7.

Optimised EV charging

- 6.25 **Current Business Plan:** We continue to support the introduction of publicly-available electric vehicle charging infrastructure in London. There are around 2,200 slow charging units across London and over 180 rapid charging points have been installed. TfL's rapid charge point programme will deliver 300 charge points by 2020, of which a proportion are exclusively for the use of zero-emission-capable taxis. There are now over 1,700 zero emission capable taxis in operation in London.
- 6.26 Last month the Mayor launched London's Electric Vehicle Infrastructure Delivery Plan. This establishes a number of key targets for London's charging infrastructure by 2025 to support the transition to electric vehicles, and includes key commitments in support of this by TfL and stakeholders including London Councils, UK Power Networks, BP and Shell.
- 6.27 **Feasibility work undertaken:** In order to meet the Mayor's targets for air quality, our work with the EV taskforce has indicated a potential scale of infrastructure of 1,000-4,000 rapid chargers by 2025 and a need to initiate a hub-focussed approach.
- 6.28 We are also at a critical phase as air quality policies take hold and publicly-funded charger programmes near their end. While the private sector is then expected to step up to most charging needs, the market remains in its infancy and we anticipate the need for a continuing strong public sector role if these infrastructure needs are to be met.
- 6.29 **Next steps for EV charging:** We continue to explore future partnership and commercial models for TfL to develop and/or run its own charge point infrastructure. We have a number of key strengths, including land, energy, brand, experience and purchasing power. It is envisaged that, in the medium-term, these could be better harnessed to help accelerate charge point infrastructure delivery.

Optimised Bus Electrification

- 6.30 **Current Business Plan:** Clean buses operate in the Ultra Low Emission Zone and by the end of 2019 12 Low Emission Bus Zones will be delivered. By 2020, our entire fleet will meet the Euro VI engine emissions standard. We have committed that from 2020, all new single-deck buses entering the fleet will be zero-emission. This year the first two double deck routes will be converted to zero emissions, and depending on improvements to range and durability and power upgrades to depots we will transition to buying only zero emission at tailpipe double-deck buses, so that by 2037, the entire bus fleet will be zero-emission.
- 6.31 **Feasibility work undertaken:** The review underway is answering how to transition in the most economic way to a fully electric bus network by 2037. This is a major undertaking and includes the following key components:
 - (a) Convert more than 9000 buses;
 - (b) Electrify 76 garages;
 - (c) Upgrade 12 substations;

- (d) Install 6300 bus chargers; and
- (e) Find 750 new stabling sites for buses.
- 6.32 Critical complexities are: avoiding cost, retaining high quality competition in the London bus market, technology choice e.g. garage vs on route charging, battery technology and range constraints, how to deal with many different owners of garages, how to modify our contracting approach to deliver an electric bus network.
- 6.33 Our review has accounted for all of this complexity and is now nearing completion. This has looked at: how to run an electric fleet in the most efficient way, the technology choices which best support that operation, and how we can best contract for that proposition and build market confidence and momentum. Building on this base position which delivers by 2037, the project is now looking at potential acceleration scenarios, and what costs, risks and benefits these introduce.
- 6.34 **Next steps:** Full development of potential acceleration scenarios for bus electrification will be completed later in the summer. A report on this work will be submitted to a future meeting of the panel.

7 Evaluation of workstreams

Infrastructure Projects

7.1 Following completion of feasibility, projects have been prioritised on their ability to significantly reduce TfL's carbon emissions and operational cost. These projects, outlined throughout section 6, form our challenging plan to meet its energy and carbon ambitions by directly reducing energy consumption or providing an alternative source of energy. Figure 3 provides an overview of the potential reduction in carbon that could be achieved through these infrastructure projects.

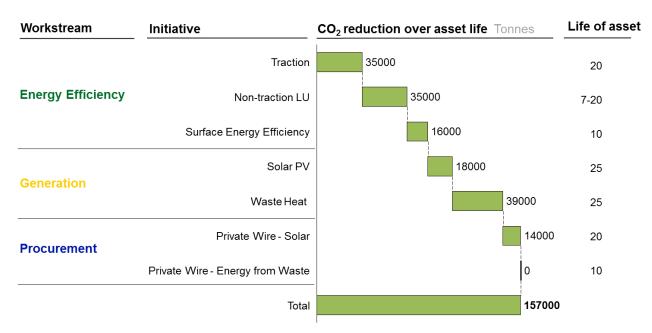


Figure 3: Carbon abatement potential of the proposed projects over asset life

- 7.2 All of the projects included in Figure 3 offer direct CO₂ savings, totalling over 157,000 tonnes as a portfolio. This is a significant total carbon reduction and is equivalent to the annual carbon emissions of nearly 20,000⁴ people in the UK.
- 7.3 Were all of the projects demonstrated in figure 3 delivered, they would reduce TfL's annual volume of electricity purchased from grid by 15 per cent. Therefore, for the foreseeable future, we will be reliant on grid for the vast majority of its electricity requirements.

Grid procurement

- 7.4 The grid is forecast to decarbonise by over 55 per cent to 2030 as more renewable assets are constructed and as the proportion of electricity produced from fossil fuel sources reduces. Therefore, the electricity supplied to TfL's assets from grid will decarbonise as the 'grid mix' becomes greener, as shown in figure 4.
- 7.5 TfL's projected (baseline) emissions from rail electricity in 2030 are c140 k tonnes of CO₂. The LES target is to shift to zero carbon and this would necessitate a change in TfL's purchasing strategy, for example by entering into longer term power purchase agreements (PPAs) with renewable energy suppliers. Rather than directly reducing TfL's carbon emissions that can be achieved through the infrastructure projects referred to in figure 3, this intervention could enable the 'grid mix' to become greener through TfL entering into contracts that enable more renewable assets to be built. This would decarbonise the UK electricity system, but TfL would only benefit indirectly (as we would not be the sole recipient of the electricity). Our objectives to the procurement of PPAs are:
 - (a) we can be confident they would provide a cost saving or be cost neutral;
 - (b) they are compatible with TfL's financial constraints, in that any new assets are "off budget/balance sheet";
 - (c) they are appropriate for TfL's corporate appetite for risk; and
 - (d) provide zero carbon energy, with an aspiration for additional renewables delivered on grid.
- 7.6 Through CCS, TfL currently purchases ~36 months ahead and longer term agreements present different risks and potential benefits, as outlined in paragraphs 6.23 6.24. Our proposed approach to securing PPAs is incremental, in order to benefit from the anticipated falling price curve of renewables, whilst aligning to the Mayor's carbon ambitions. This approach is split by purchasing from existing renewable assets available on grid and contracts that enable additional renewable assets to be delivered on grid. The volumes proposed form our approach, but will change as further detailed analysis is undertaken as part of the procurement strategy. At this stage (and subject to approval), it is envisaged that Procurement Authority and PPA price range would be pre-agreed to allow greater flexibility in engaging with the market, in order to execute one or more PPAs and greater volume uptake if competitive prices were to prevail.

⁴ Based on figures from the <u>Committee on Climate Change</u>

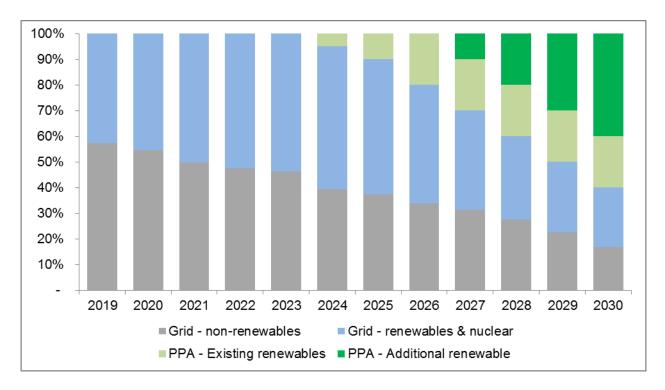


Figure 4: Indicative approach to renewable energy purchasing from grid.

8 Next steps

- 8.1 **Monitoring and reporting:** TfL's carbon emissions and trajectory towards targets will be monitored and reported to the Panel.
- 8.2 **Energy Investment:** The following opportunities (as outlined within section 6) will be considered during the 2019/20 business planning process. Options around bus electrification are under development.
 - (a) Installation of inverters across the London Underground network to reduce traction energy consumption;
 - (b) Reduction in the number of DC segments on London Underground lines to reduce traction energy consumption;
 - (c) Introduction of coasting on London Underground lines (where possible) to reduce traction energy consumption;
 - (d) LED lighting upgrades across all TfL assets that have not yet been upgraded;
 - (e) Development, design and delivery of additional solar across rooftops, tracksides and land plots;
 - (f) Development, design and delivery of additional waste heat schemes; and
 - (g) Development, design and delivery of private wire opportunities.

- 8.3 **Grid Procurement:** Continuation of our existing purchasing strategy will be presented to the Finance Committee in December 2019; this paper will include an update on progress of work being undertaken with our procurement partner/energy risk manger (CCS), concerning programme and timing of securing PPAs. Due to the likely value of any PPA agreement, the benefits, risks and procurement authority sought will be outlined and presented to the Finance Committee during Spring 2020.
- 8.4 **Further feasibility:** Additional feasibility will be focussed on the following areas, subject to funding availability:
 - (a) energy storage solutions that interface with the operation of railway assets;
 - (b) consolidation of cooling systems in London Underground stations;
 - (c) development of a Building Management System strategy; and
 - (d) development of a strategy for TfL's long term transition away from gas for heating.

List of appendices to this report:

None

List of background papers:

SSHRP Panel Papers Feb 2019 Energy Strategy

SSHRP Panel Papers June 2018 Energy Strategy

Contact Officer: Alex Williams, Director of City Planning

Number: 020 3054 7023

Email: AlexWilliams@tfl.gov.uk



Agenda Item 9

Safety, Sustainability and Human Resources Panel

Date: 10 July 2019

Item: Human Resources Quarterly Report



This paper will be considered in public

1 Purpose

- 1.1 To provide the Safety, Sustainability and Human Resources Panel with an update on key Human Resources (HR) led activities and performance for Q4 2018/19.
- 2 Recommendation
- 2.1 The Panel is asked to note the report.
- 3 Background
- 3.1 Appendix 1 sets out the fourth HR Quarterly Report to the Safety, Sustainability and Human Resources Panel for the 2018/19 reporting year.
- 3.2 The HR Quarterly Report focuses on providing the Panel with an update on a number of key HR activities underway, the TfL Scorecard, recruitment and Diversity and Inclusion interventions.
- 3.3 The HR Quarterly report also provides an overview of the 2018/19 performance year as a whole, Scorecard targets for 2019/20 along with an overview of upcoming publications.

Appendices:

Appendix 1: HR Quarterly Report

List of Background Papers:

None

Contact Officer: Tricia Wright, Chief People Officer

Number: 020 3054 7265

Email: TriciaWright@tfl.gov.uk





HR Quarterly Report – 2018/19 Quarter 4 Update

Executive Summary

This Human Resources (HR) Quarterly Report provides an overview of key developments that have taken place in the fourth quarter of the 2018/19 financial year, covering between 9 December and the 31 March inclusive.

During this final quarter we confirmed our scorecard results for the Workforce Representativeness Index (WRI) measures. Both our senior WRI and all employee WRI measures fell short of their target for the year, with senior manager representativeness falling in Q4 to 37.8 per cent, and all employee representativeness remaining constant at 69.9 per cent.

Over the next quarter we will be finalising our People Strategy and People Plan 2019/20. This will provide a coordinated approach to building a more capable and engaged workforce, along with mitigations against challenges we face as an organisation.

We will also be publishing our first Diversity & Inclusion Impact report, which will change the way we report our Diversity & Inclusion data, by incorporating a more holistic picture of accessibility and inclusion for both our employees but also our customers.

Report Content

Section 1 – TfL Scorecard – People Measures

- Workforce Representativeness
- People Scorecard Measures 2019/20
- Upcoming Publications
- Update on people activity, Q4

Section 2 - Our People

- Recruitment
- Leavers
- Promotions

Section 3 – Workforce Composition

- Permanent Headcount
- Workforce composition by area
- Non-Permanent Labour

Section 1: TfL Scorecard – People Measures

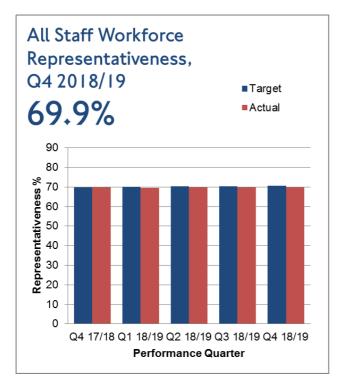
This section provides the Panel with an update on our People measures included on the TfL Scorecard, along with key activities which support the delivery of our Scorecard targets.

Workforce Representativeness

Total Workforce Representativeness

The WRI measures are an indicator of how closely TfL employees reflect the economically active London population.

The Scorecard target for Total WRI in 2018/19 was 70.7 per cent. The WRI in Q4 remained unchanged from Q3 at 69.9 per cent, resulting in us falling short of our target for the year.

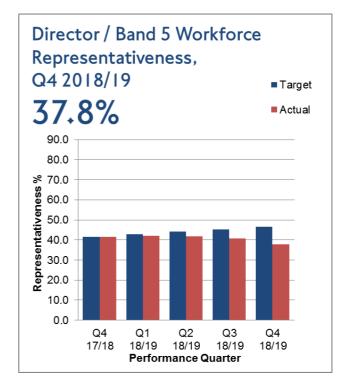


Director / Band 5 Workforce Representativeness

For the Director and Band 5 workforce representativeness scorecard measure, the 2018/19 target was 46.6 per cent. In Q4 our senior manager representativeness reduced from 40.6 per cent 37.8 per cent, falling below the annual scorecard target set.

The senior manager WRI measure has been considerably impacted by the ongoing disclosure campaign which aims to collect more employee demographic information if not previously held. This had the impact of those who had not previously declared, primarily coming from majority demographic groups, e.g. white or male.

This campaign is still ongoing, and emails have been recently sent to 1,000 employees, asking them to disclose further information if they have not previously disclosed this.



The 2019/20 Scorecard People Measures

The table below provides a summary of the four People measures included on the TfL Scorecard, along with the targets for 2019/20.

People	2018/19 Result	2019/20 Target
Foster a workforce representative of London		
Workforce Representativeness Index - All Staff	69.9%	70.9%
Workforce Representativeness Index - Director/Band5	37.8%	38.3%
Engage our people		
Total Engagement Index	56%	57%
Build and inclusive environment		
Inclusion Index	43%	46%

The rationale for the representativeness targets are a +1 per cent increase for our All Staff index, with a +0.5 per cent increase for the Director/Band 5 index.

Our target for our Total Engagement Index is +1 per cent on the 2018/19 score. A separate paper on work taking place to achieve this is being tabled as a separate update at this Panel.

The target for the Inclusion index is +3 per cent on last years result. Our target for 2018/19 was 46 per cent which we did not achieve, the target for 2019/20 remains the same.

Upcoming Publications

The Diversity & Inclusion Impact Report

In previous years we have produced two documents – the Action on Equality Progress report and Annual Workforce Monitoring report. These showed how we meet our duties as an employer, separately to our public sector equality duty.

We have now combined these two documents because we believe that the two

are intrinsically linked: by having a workforce that represents the city we serve —and whose talents are harnessed by inclusive processes, behaviours and culture.

The report will not only contain diversity data and workforce composition, but will also provide updates on key deliverables which have taken place within the year, recruitment performance, activities to promote an inclusive culture, both internally and for our customers, along with activities to promote accessibility.



The first report to be published will be a backdated report for 2017/18, with the 2018/19 report to be published later this summer.

A copy of the report will be provided to the Panel members once published.

Our People Strategy

We are currently developing our People Strategy which will provide the strategic direction for our people activity over the next five years. This document will set out where we are today, where we want our people to be in five years time, and how we aim to get there.

The Executive Committee have agreed our People Vison; 'A great place to work for everyone'. A key outcome of the People Strategy will be to bring the vision to life and describe how we propose to build a high performing and engaged workforce.

The People Strategy will also address the internal and external headwinds facing the business and identify what people interventions, initiatives and priorities need to be in place to mitigate these.

Our annual People Plans, which provide in detail the interventions and priorities for the current performance year will be informed by the People Strategy. These will be on both a pan-TfL level and for individual business areas to acknowledge the more localised people challenges.



At the next SS&HR Panel in September, we will provide a paper on our People Plan for 2019/20, and our key deliverables for the current year.

Going forward the HR Quarterly Report will evolve to provide a update on progress made against this People Plan for each quarter and the key themes contained within this. The Diversity & Inclusion data provided currently within the HR Quarterly Report will be contained in the Diversity & Inclusion Impact Report.

Update on people activity, Q4

Disclosure Campaign

Our email disclosure campaign continues to provide more detailed demographic data on our employees. The campaign has utilised behavioural science to encourage employees to update their demographic details on our HR system, creating a more comprehensive and accurate picture of our employees.

At the beginning of April over 1,000 emails have been sent out to employees with partial information held, paper copies have also been distributed for operational employees without email access.

There has been a positive response to the campaign with the trials completed so far, with over 25 per cent of recipients updating information on their faith, sexual orientation and disability.

The responses received have had a mixed impact upon our workforce representativeness measures, with a negative impact upon our senior manager measure in particular. Further impacts of this campaign will be covered in more detail in the following section of this report.

Leadership Foundation

Good leadership is vital for TfL as we move into the next phase of our business plan. We are identifying leadership talent at all levels of the organisation and there's an urgent need to develop and deploy this leadership potential.

Building a Leadership Foundation is our approach to professionalising leadership at TfL using experiential development, peer learning, coaching, work experience and focussing on solving real business priorities.

This work contributes to our overall scorecard, driving engagement, creating inclusive leaders, focussing on having effective conversations, promoting safety leadership and harnessing the diverse pipeline of leaders currently at lower or operational levels of the organisation.

TfL Military Day

We reaffirmed our position as a British industry leader in the transport sector in March when we supported the nation's military community for the sixth year running with a special recruitment event at our Stratford Skills Training Centre.

More than 300 armed forces, reservists, and their families, attended and heard Royal Air Force Commodore, Rich Paul, talk about the strong bond between TfL and the armed forces and the excellent skills the military community bring.

They were joined by Tech and Data, Engineering and Projects & Programmes colleagues, where most recent hires from the military community now work, with eight key suppliers including Siemens, Amazon AWS and Microsoft also in attendance.



People Impact Assessment

As part of our commitment to managing change more effectively and mitigating any potential impacts upon our people, we have developed a People Impact Assessment tool to support our Transformation activity.

The aim of this tool is to help our senior managers think about the wider implications of transformation, not only D&I issues, but also in terms of skills and succession planning for the future, fostering more informed and considered decision making with regard to our people.

TfL Supplier Skills Apprenticeship Fair

On the 29 March, TfL hosted this year's TfL Supplier Skills Apprenticeship Fair at Central Hall, Westminster, held as part of National Apprenticeship Week. More than 550 people interested in a career in transportation, engineering or construction were in attendance.

Our biggest yet, the fair showcased more than 500 jobs and apprenticeships and more than 1,500 training opportunities. Those on offer included engineering, track maintenance, customer service, construction and HR from TfL suppliers and covered other opportunities from across the Greater London Authority.

Innovate TfL in association with Cleshar schools challenge

On Monday 4 March, we hosted our annual schools challenge for Year 12 and 13 students, Innovate TfL. Out of 61 schools who registered, the final saw four teams compete.

The winning team for 2019 was 'Mind the Girls' from Northwood College for Girls. The girls came up with the idea of a fob to be used by wheelchairs users. The user will activate the device while waiting for a bus, providing the driver with advance notice that customers will need to create space for a wheelchair user.

The winning team were awarded tablet computers which were presented by Jennette Arnold, Assembly Member Hackney, Islington and Waltham Forest. All finalists will also be undertaking work experience at TfL.

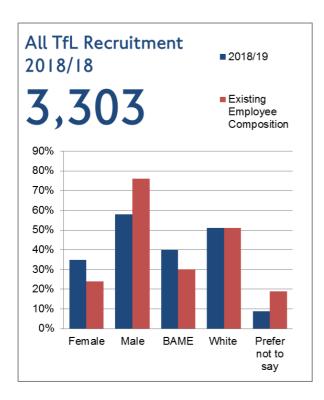


Section 2: Our People

Ongoing Recruitment Activity

The following section shows the composition of all recruitment by business area during Q4. This includes both internal and external recruitment, along with promotions and changes to roles within the same band/grade.

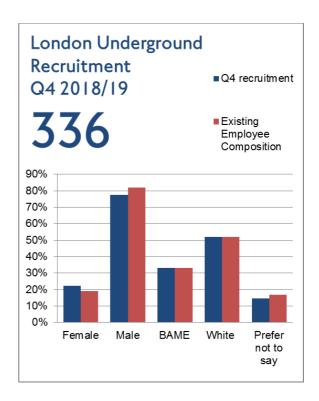
In 2018/19 there were 3,303 employees recruited. Of these 34.91 per cent were female, against an existing TfL female employee population of 23.68 per cent.



Black and Minority Ethnic (BAME) recruitment for the year was also higher than the existing employee population, with 39.87 per cent of those recruited declaring as BAME, against 30.52 per cent.

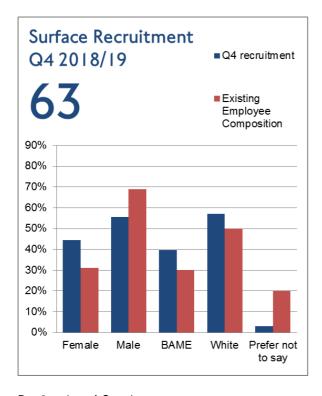
London Underground

BAME recruitment was 33.15 per cent during Q4, slightly below the existing employee population of 33.17 per cent. Female recruitment was 22.32 per cent in Q4, this is above the existing 18.10 per cent of LU population that is currently female.



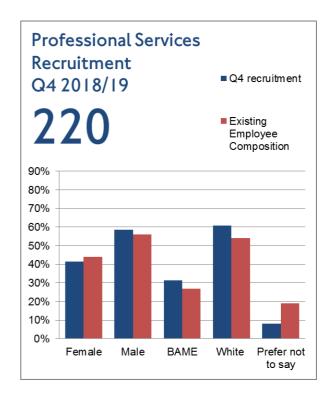
Surface Transport

Recruitment in Surface during Q4 was more diverse than the existing surface employee population. Female recruitment was 44.44 per cent, up on the 31.09 per cent. BAME recruitment was 39.68 per cent in Q3, up on the 30.04 per cent of the existing surface population that declare as BAME.



Professional Services

Recruitment in Professional Services was broadly reflective of the existing employee population during Q4. Over 41.36 per cent of those recruited in Q4 were female, slightly below the existing population of 43.24 per cent female. BAME recruitment was slightly higher than the existing employee population, with 31.25 per cent again 27.39 per cent respectively.



Apprentice Recruitment

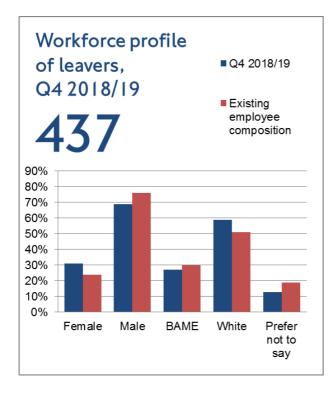
All apprentice recruitment days have now concluded for the 2019 intake. There have been 109 offers made across 23 different apprentice schemes. Further offers for LU Engineering apprenticeships have yet to conclude, however these will start in February 2020 instead of September 2019.

Acknowledging that all offers may not translate to starters, initial analysis shows that the number of female apprentice recruits will increase from 20 per cent in 2018 to 36 per cent in 2019. Offers to BAME candidates have also increased from 34 per cent to 36 per cent.

A more detailed update will be provided at the following Panel when remaining recruitment activity for Graduates has also concluded.

Leavers

In Q4 a total of 437 employees left the organisation, a turnover rate of 1.6 per cent, bringing an annual turnover rate for 2018/19 to 9.5 per cent. Whist this low turnover rate can be seen as a positive indicator in some organisations, TfL has found that it can also reduce the speed by which the organisation can change its representativeness.



In Q4 there were proportionally fewer BAME employees leaving the organisation than the existing employee composition, with 26.54 per cent of leavers coming from a BAME background, compared with over 30.52 per cent of the existing employee population.

The proportion of leavers who were female was higher than the wider employee composition, with 31.12 per cent of leavers in Q4 being female, against 23.68 per cent.

The proportion of leavers who declared they had a disability was 4.34 per cent, higher than the average declaration rates of 2.18 per cent.

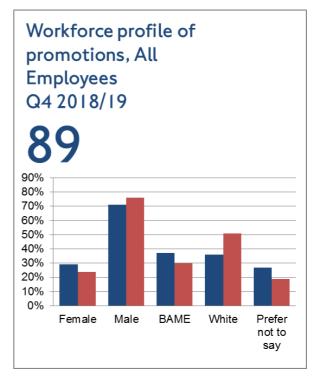
Further work to investigate the reasons for this will be looked at as part of the Disability Roadmap work which will presented at the September Panel.

Promotions

In Q4 a total of 89 employees were promoted. This is defined as a change in role from one pay band to the one above. This does not include lateral moves.

Of those promoted in Q4, 29.21 per cent were female which is above the existing employee composition which is 23.68 per cent female. The proportion of those promoted declaring as BAME was higher than the existing employee composition also, with 37.08 per cent of those gaining promotion declaring as BAME, against 30.52 per cent.

Those who declared a disability was also higher than the existing employee composition, with 2.25 per cent of promotions declaring a disability, against 2.18 per cent.



Section 3: Workforce Composition

Permanent Headcount

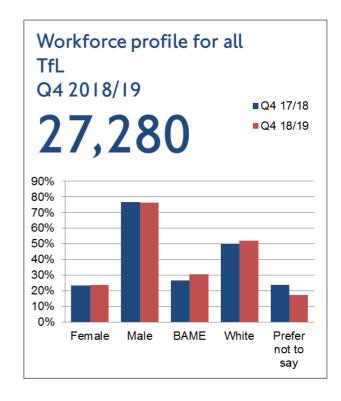
Data extracted from the HR System (SAP) excludes employees whose details have not yet transferred to SAP. The Total Headcount figure contains Crossrail employees but the workforce composition data does not, as this data is not held on SAP.

The following staff numbers represent both permanent TfL employees and temporary staff measured in full time equivalents (FTEs) which equate to one person working 35 hours per week.

All TfL

At the end of 2018/19, the total FTE headcount fell to 27,280. Over the performance year, this has fallen by 1,176 employees, down from 28,456 at the end of 2017/18. In Q4, headcount fell by 199 employees, from 27,479.

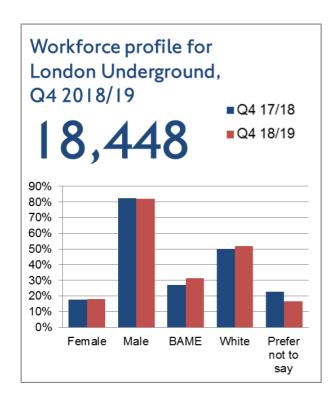
The proportion of employees who declare their ethnicity as BAME has increased over the past year, from 26.51 per cent at the end of Q4 2017/18, to 30.52 per cent in Q4 2018/19, this is in part driven by the email disclosure campaign. The proportion of employees who do not declare their ethnicity continues to fall, from 23.62 per cent to 17.36 per cent.



The proportion of female employees increased slightly from 23.45 per cent at the end of Q4 2017/18 to 23.68 per cent, down slightly from 23.80 per cent in Q3.

London Underground

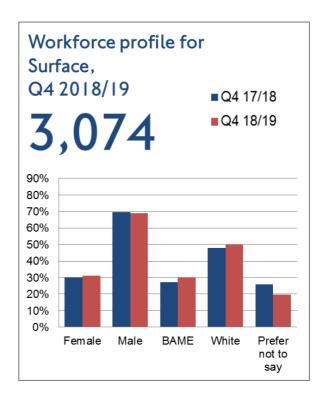
The total FTEs in London Underground have decreased from 18,851 at the end of 2017/18 to 18,567 at the end of Q4. Changes to the diversity of London Underground employees mirrored that of TfL, with the proportion of employees declaring as BAME increasing from 27.22 at the end of Q4 2017/18, to 31.27 per cent, up from 31.17 per cent at the end of Q3. Those preferring not to declare their ethnicity has declined from 22.58 per cent to 16.70 per cent over the same period.



The proportion of LU employees that are female has increased from 17.59 per cent at the end of Q4 2017/18, to 18.10 per cent. This is up from 18.01 per cent in Q3.

Surface Transport

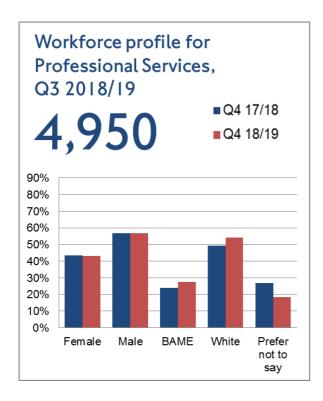
Total FTEs in Surface have fallen from 3,465 at the end of 2017/18, to 3,074 at the end of Q4. This is a 11.3 per cent reduction in total headcount in 2018/19.



The proportion of BAME employees has increased from 26.28 per cent at the end of Q4 2017/18, to 31.09 per cent, continuing the upward trend seen in 2017/18. The proportion of female employees increased slightly, from 30.33 per cent at the end of Q3 2017/18, to 31.09 per cent this year, down slightly from 31.16 in Q3.

Professional Services

Professional Services comprises functions including General Counsel, Finance, Human Resources, Commercial and Customers, Communication and Technology where services are provided on a shared basis across all delivery divisions.



Total FTEs in Professional Services has decreased marginally, from 5,002 at the end of 2017/18, to 4,950 in Q4. There was a fall in the proportion of female employees over the past year, decreasing from 43.30 per cent at the end of 2017/18, to 43.24 per cent.

The proportion of BAME employees in Professional Services increased from 23.89 per cent at the end of Q4 2017/18 to 27.39 per cent in Q4 this year.

TfL Senior Manager Staff Composition

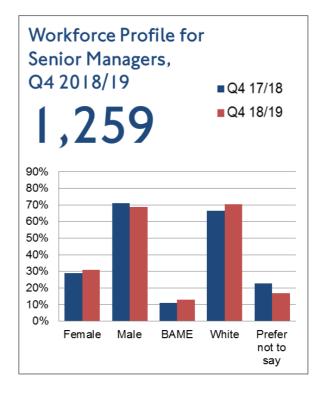
The total number of senior managers has increased slightly from 1,223 in Q4 2017/18, to 1,259 at the end of Q4 2018/19. The number of Directors remained constant at 51.

The proportion of female senior managers has decreased increased slightly from 28.84 per cent to 31.04 per cent.

The proportion of our senior managers declaring as BAME has increased over the

previous year, from 10.83 per cent in Q4 2017/18, to 12.88 per cent in Q4 2018/19, with the absolute number of BAME senior managers increasing by over 24 per cent.

The first section of this update showed that our senior manager representativeness scorecard measure fell during 2018/19. This measure details employees at B5 and above, whereas senior managers in this report look at B4 and above. The increasing diversity of this measure, coupled with the declining representatives of B5+ demonstrates that our B4 senior managers are becoming more diverse, building a more diverse talent pipeline for the future.



TfL Operational Staff Composition

The number of operational employees decreased slightly in the previous quarter, from 14,446 to 13,838. Of these, the

proportion of female operational employees increased from 16.80 per cent to 17.36 per cent.

The proportion of BAME operational employees increased significantly, from 28.11 per cent, to 33.64 per cent. The number of employees who did not declare their ethnicity declined from 24.57 per cent to 18.43 per cent. The proportion of employees that declared as white remained relatively constant, increasing slightly from 47.32 per cent to 47.93 per cent at the end of 2018/19.

Workforce profile for Operational staff, Q4 2018/19 Q4 17/18 13,838 Q4 18/19 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% Female Male BAME White not to

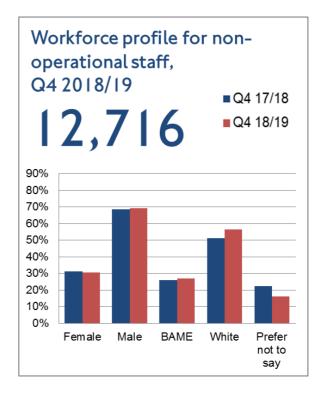
TfL Non-Operational Staff Composition

The proportion of female non operational employees decreased slightly in 2018/19, from 31.36 per cent to 30.57 per cent.

The proportion of employees that declare as BAME increased from 26.13 per cent to 27.12 per cent in Q4. Those that do not declare their ethnicity fell from 22.53 per cent to

16.20 per cent, with those declaring as white increasing from 51.34 per cent to 56.68 per cent.

There are contrasting trends between operational and non operational employees regarding changes to the declaration rates, with more BAME employees feeling comfortable to declare their ethnicity in operational areas, whereas in non operational it is more employees now declaring as white.

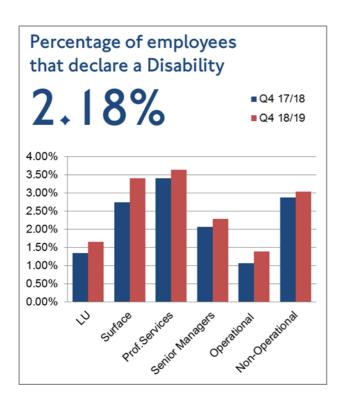


The proportion of BAME non operational employees has increased from 25.91 per cent in Q3 2017/18 to 27.35 per cent in Q3. The proportion of female non operational employees has decreased slightly over the previous year, from 32.24 per cent to 31.80 per cent at the end of Q3.

TfL Disability Declaration Rates

At the previous Panel, further information on our employees that declare a disability was requested. More information on disability and the experience of our disabled employees as they progress through the employee lifecycle will be presented in the upcoming Diversity & Inclusion Impact Report.

Ahead of this report's publication, the following table illustrates the increasing disability declaration rates across all areas of the organisation. Whilst these rates are still low in comparison to the 15 per cent of the wider population that have a disability, this demonstrates the increasing confidence of our employees to declare their ethnicity at TfL.



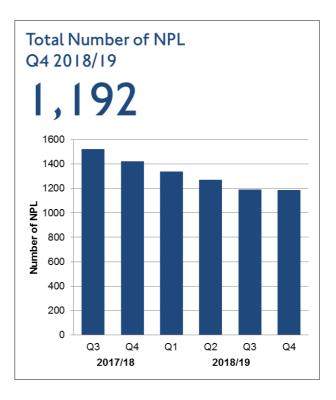
The proportion of leavers who declared they had a disability was 4.3 per cent, higher than the average declaration rates. Further work to investigate the reasons for this will be looked

at as part of the Disability Roadmap work which will presented at the September Panel.

Non Permanent Labour

Non Permanent Labour (NPL) is defined as temporary staff engaged to complete project work or short term assignments.

The use of NPL has reduced from 1,422 at the end of 2017/18, to 1,192 by the end of 2018/19. This represents a 16 per cent decrease over the year.

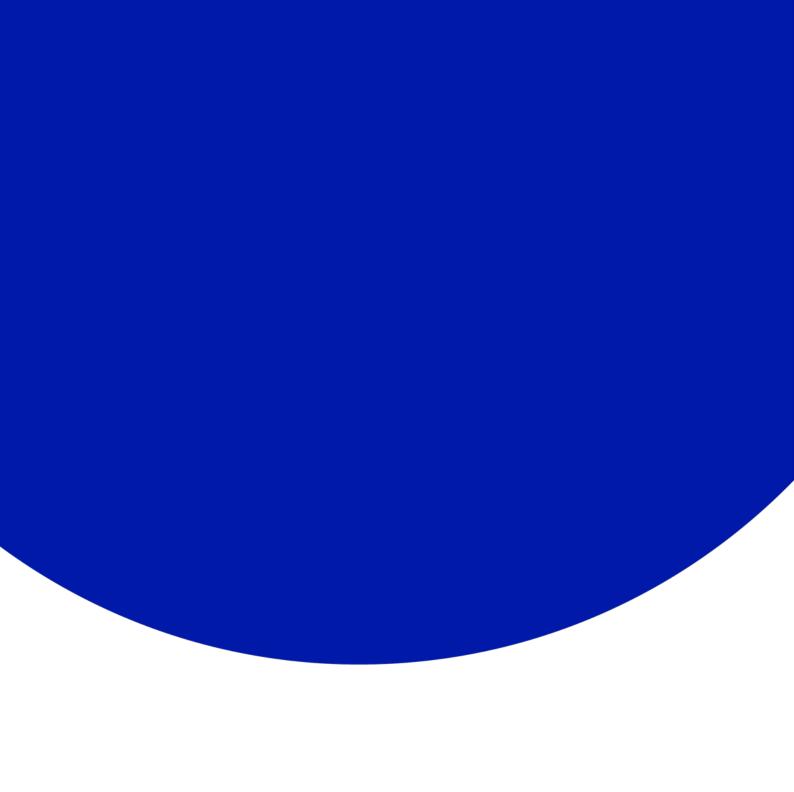


As part of our efforts to reduce the use of NPL, we have also sought to reduce the duration that these temporary staff work with TfL. The following table provides a breakdown of the duration current NPL workers have been with the organisation, and the reduction in average duration seen.

Length of Service	Q4 17/18	Q4 18/19	Net change
0-6 months	280	342	62
6-12 months	355	183	-172
I-2- years	259	282	23
2-3 years	237	220	-17
3-5 years	174	100	-74
5+ years	117	65	-52
Total	1422	1192	-230

However, it is important that we continue to make use of the flexibility offered by NPL, particularly through this time of change and temporary peaks in demand, e.g. in recruitment resulting from Transformation. It is equally important that we do not close off our ability to hire talent in scarce skills areas.

We will look to balance the cost and use of NPL with our ongoing commitment to our customers and our key role in keeping London moving and growing.







Agenda Item 10

Safety, Sustainability and Human Resources Panel



Date: 10 July 2019

Item: Employee Engagement Update

1 Summary

- 1.1 This paper is to provide an update on activity taking place to improve employee engagement.
- 1.2 This paper will also be presented to the TfL Board on 24 July 2019.

2 Recommendation

2.1 The Panel is asked to note the report.

3 Background and current status

- 3.1 Our people are our greatest asset and we care passionately about their wellbeing, yet in 2018 we were disappointed not to meet our own aspirations on engagement.
- 3.2 In 2018 employee engagement, measured through the Total Engagement Index, remained at 56 per cent falling just short of our Scorecard target of 57 per cent.
- 3.3 This paper provides an update on our drive to better understand the needs of our people, make TfL a better place to work and improve our employee engagement now and for the future.

4 Understanding and acting on engagement

- 4.1 We are committed to making TfL a great place to work for everyone, caring for our people, and supporting them to be the best they can be. This is the only way we can truly deliver for London. The best indicator of how well we are doing at this are our Viewpoint engagement scores, which tell us how our people feel about working for us and what needs to be better.
- 4.2 Our 2018 Viewpoint survey had a record response rate, up 9 per cent on the previous year to 66 per cent. This means we can be confident that what it is telling us is important to our people. Three key drivers of engagement from 2018 include:

- Recognition for doing a good job (Recognition)
- Open and honest communication from senior managers (Communication)
- Feeling involved in decisions that affect their work (Decisions).

5 Taking action in 2019

- 5.1 Based on everything our people have told us, we are delivering a comprehensive, integrated engagement strategy, designed to reach everyone who works in the organisation, showing them we are listening and taking action, and making this a better place to work.
- 5.2 At an overarching corporate level, there are three key initiatives:
 - a) A new recognition strategy will deliver more consistent, high quality recognition across the organisation, underpinned by the launch of the "MyRecognition platform" to encourage recognition from managers and colleagues.
 - b) The Transformation toolkit supports leaders to deliver change in a more people focused way, ensuring a consistent experience of change for all of our people with a particular focus on maintaining wellbeing during uncertainty.
 - c) New people plans are being put in place in all areas across the organisation with clear objectives, and specific work to better understand the deep-rooted cultural issues that affect engagement in different areas. Our people plans place a significant emphasis on competence and accountability in line management. We are upskilling our managers with new courses and tools, refresher programmes on high quality engagement and using our channels to communicate more effectively. This renewed focus is supported by the inclusion of people leadership objectives in Performance & Development discussions.
- 5.3 Directly aligned with both the key drivers and supporting these high level strategies are more targeted initiatives in every area of the business designed to deliver measurable change and demonstrate our commitment to making this a better place to work:
 - a) Driving recognition (Recognition) "You Matter" awards by business area, manager toolkits for integrating recognition into all regular activity.
 - Greater visibility for leaders (Communication and Decisions) "town hall" style meetings, management capability programmes, leadership visibility plans, campaigns around greater leadership and Yammer engagement.

 Initiatives to involve people in decisions (Decisions) – people and change advocate networks, director insight sessions, best practice sharing forums, new agile working groups.

6 Engaging our leader and line manager communities

- 6.1 Leadership accountability and ownership of all these activities is vital for success. We will be supporting our leaders to inspire renewed enthusiasm for direct engagement and will support them to get out there with their teams.
- 6.2 At the Commissioner's recent leadership event, our top 300 leaders dedicated their day to completing a number of challenges around frontline engagement. Their response was overwhelming and a strong sense of enthusiasm was evident throughout the event. Direct feedback from those taking part was uniformly positive and there were hundreds of posts to the dedicated Yammer pages. Our leadership team embraced this opportunity, and we will continue to work to build on this enthusiasm and incorporate regular face-to-face, high visibility engagement into their activities.
- 6.3 In London Underground (LU), Viewpoint scores have consistently highlighted the need for more effective face-to-face management. We are refreshing and relaunching TeamTalk, which is our primary channel for regular face-to-face engagement between local leaders and their team members.
- 6.4 TeamTalk is used every period by around 2,150 managers in London Underground's operations teams to communicate with their people. Its purpose is to facilitate regular high-quality face to face engagement. However, the use of TeamTalk has varied across the network with some managers using it as intended, some only using email or digital screens, and many not really communicating at all.
- 6.5 The refreshed TeamTalk mechanism will be online, giving our operational managers targeted updates to share with their teams aligned with the LU priorities; safety and reliability, customer service, affordability and people, resulting in a direct line of sight from the frontline to the MD. It will be a channel for two-way conversation, allowing team members the opportunity to provide feedback and ask questions, promoting constructive dialogue. The approach will allow us to track both delivery and staff feedback.
- 6.6 We are currently working on a roll out plan for the new channel, including the option of rostering dedicated time for front line colleagues (especially train operators).

7 Supporting wellbeing and creating a safe space to challenge

- 7.1 Our Wellbeing Strategy outlines a framework to support the improvement of physical and mental wellbeing of our workforce. It acknowledges that the work and the health and wellbeing of our employees are interlinked.
- 7.2 In 2017 there were a total of 279,179 sickness absence days and of those 59,902 days were lost due to mental health. These are just the recorded days. Our objective must be to reduce sickness and so to demonstrate a healthy organisation.
- 7.3 So far we have appointed senior ambassadors; Gareth Powell and Ben Plowden, and held our first Health & Wellbeing Strategy Steering Group on 3 June chaired by Gareth Powell.
- 7.4 Feedback from staff has also shown us that engagement will improve if we create an environment where people are more confident and willing to speak up.
- 7.5 Should our employees not feel confident in raising concerns via existing internal procedures, SafeLine is a confidential and independent reporting service that our people can use if they have concerns about corruption, dishonesty, unethical behaviour, health and safety or discrimination. It is available 24 hours a day, seven days a week.
- 7.6 Our multi-channel communications and engagement campaign will promote access to SafeLine, encouraging people to speak up, creating psychologically safe spaces and actively promoting its use.
- 7.7 We are constantly monitoring and measuring all of our activity to understand what it is delivering for our people and to ensure it is effective. Alongside this, we have a cross-channel communications and engagement campaign to ensure all our people know that we are listening and acting on what they are telling us, directly in response to what they have told us through Viewpoint. This month we are delivering the 'Let's talk Viewpoint' campaign, which uses all of our established channels, including Yammer and blogs, to share success stories and best practice, highlight activities that are taking place, and stimulate discussion of how well we are doing to deliver on our Viewpoint commitments.

8 Looking ahead

- 8.1 While it is essential that we take these immediate actions in response to last year's Viewpoint results. It is also critical that we deeply understand the root causes of low engagement, validate actions we are already taking and develop longer-term strategic plans for lasting improvement. To inform this, we have begun intensive research into what is causing low engagement, with an initial focus on the 18,000 people who work in LU. This work will deliver recommendations for effective interventions to make things better for our people.
- 8.2 This 'deep-dive' is analysing many years of data from a range of sources across LU: inclusive operational culture survey, safety, attendance, and performance data and five years of Viewpoint results. This will help us identify potential causes of disengagement and provide the basis for designing solutions. Early indicative

- results from the initial analysis are closely aligned to what Viewpoint has been telling us over recent years.
- 8.3 We will then take this work to our people, inviting diverse groups from a range of job, roles and business areas to a series of focus groups. We will listen to their views on our findings and any proposals for improvement to 'sense check' that these are the right interventions. These sessions are taking place throughout June and July.
- 8.4 The purpose of this work is to bring a forensic level of scrutiny into the search for root causes and identifying solutions that will deliver long-term improvement. We will need to embrace the findings of this work and commit to supporting the delivery of proposed changes. Our leadership team, beginning with the Executive Committee, deliver these actions, ensuring engagement, alignment and accountability at every level of our organisation. Our Employee Communications and Engagement team will support where appropriate in the delivery of these plans and ensure there is consistent widespread awareness and understanding of actions that are being taken. We will also create the channels and opportunities for our people to hold our leaders to account, share their views and be part of a dialogue on making our organisation a great place to work.
- 8.5 To give leaders regular insight into the effectiveness of their actions, we are developing more regular metrics to measure engagement and this year's survey has been brought forward to September. We have also reduced the lead time for the results which will ensure they can be cascaded in good time before the end of the year.

Ap	\sim	шч	10	CJ.

None

List of Background Papers:

None

Contact Officer: Tricia Wright, Chief People Officer

Number: 020 3054 7265

Email: <u>TriciaWright@tfl.gov.uk</u>



Agenda Item 11

Safety, Sustainability and Human Resources Panel

TRANSPORT FOR LONDON EVERY JOURNEY MATTERS

Date: 10 July 2019

Item: Diversity and Inclusion Dashboards

This paper will be considered in public

1 Summary

1.1 This paper provides an update on the first year of focus on underpinning our approach to diversity and inclusion with Diversity and Inclusion (D&I)

Dashboards.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Background

- 3.1 In April 2018, we launched the first version of our D&I Dashboards, providing D&I data and insight to our senior managers. These data driven dashboards give a much richer and insightful picture of employee outcomes and experience across the hire to retire employee life-cycle.
- 3.2 The 60 local dashboards allow us to focus our activity in the right areas and see how effective our actions are in different parts of our organisation. The measures included in the dashboards cover each stage in the employee lifecycle, for a number of characteristics covered by the Equality Act and will be reviewed on a quarterly basis going forward.
- 3.3 Each dashboard includes areas of both high and low performance, triggering key lines of further enquiry, thus further raising the levels of knowledge and enquiry regarding how to create an inclusive organisation. The D&I team have developed a 'One Stop Shop' of guidance and tools to support teams to drive progress against the areas of D&I now identified as needing action by the dashboards.
- 3.4 In order to improve the quality of data upon which our dashboards are based, we have delivered a comprehensive behavioural science focussed project to increase rates of disclosure, where employees voluntary provide information on their seven protected characteristics. Every TfL employee has been asked to review and / or upload their data resulting in our 2019-20 dashboards will therefore be much more statistically valid.

4 Examples of Impact

- 4.1 Actions taken as a result of the dashboards can be at a corporate, directorate or a local level. One example of a corporate response is the new Disability Roadmap. This was produced in consultation with disabled staff to address the new knowledge that most dashboards indicated the need for a focus on recruiting, promoting and including disabled staff better. The delivery of the roadmap will begin in the autumn of 2019 when the new D&I team is in place.
- 4.2 At a directorate level, for example, we have been able to identify London Underground specific D&I barriers and the trialling of new initiatives including for example work experience pilots, a review of secondment opportunities and targeted recruitment campaigns. The latter led to some concrete results including;

Customer Service Assistant (Night Tube):

- 37 per cent Women
- 76 per cent BAME

Customer Service Supervisor (Night Tube):

- 45.5 per cent Women
- 72.7 per cent BAME

Compliance Officer:

- 41 per cent Women
- 66 per cent BAME

Trains Manager:

- 35.5 per cent Women
- 71 per cent BAME

Trains Operator (Night Tube):

- 30 per cent Women
- 66.8 per cent BAME

These compare to an existing employee composition in London Underground which in Q4 2018/19 were 18.10 per cent female, and 31.27 per cent BAME.

- 4.3 Other examples of the local impacts the dashboards have had include;
 - used to inform more robust Equality Impact Assessments especially of transformations;
 - (b) used when undertaking pay parity exercises following transformation;
 - (c) informing recruitment campaigns;
 - (d) informing internal talent pipelining and succession planning;
 - (e) setting up new internships;
 - (f) review of performance awards; and

(g) targeted pilots of blind recruitment shortlisting, prior to rolling out the software for the majority of our recruitment campaigns.

5 Overall impacts

- 5.1 The existence of our D&I dashboards also helps us to see where progress is being made in more detail than our TfL Scorecard measures.
- 5.2 For example in terms of representation we can see that:
 - (a) the percentage of women we employ increased from 23.6 per cent in Q1 to 23.7 per cent by the end of the year;
 - (b) the percentage of BAME staff we employ increased from 36.5 per cent in Q1 to 37 per cent by the end of the year;
 - (c) the percentage of disabled staff in our workforce increased from 4 per cent in Q1 to 4.2 per cent by the end of the year;
 - (d) the percentage of staff with a minority religion of belief increased from 19.9 percentage in Q1 to 20 percentage by the end of the year; and
 - (e) the percentage of lesbian, bi sexual and gay staff we employ dropped marginally from 6.8 percentage to 6.5 percentage from the beginning to the end of the year.

(These values are based on employees that declare their protected characteristics)

- 5.3 Inclusion index scores for all our minority groups increased this year from:
 - (a) 43.2 per cent in 2017 to 44.5 per cent for women;
 - (b) 45.3 per cent in 2017 to 46 per cent for our BAME employees;
 - (c) 31.2 per cent in 2017 to 34.9 per cent for our disabled staff;
 - (d) 46 per cent in 2017 to 46.1 per cent for those with a minority religion or belief; and
 - (e) 38.8 per cent in 2017 to 43 per cent for our lesbian, gay and bi sexual employees.
- 5.4 We have also had some real successes with recruitment increasing the hiring of BAME staff from 34.3 per cent in Q1 to 46.8 per cent in Q4 and for disabled people from 1.9 per cent to 3 per cent respectively.

List of appendices to this report:

Appendix 1 – TfL D&I Dashboard, Q4 2018/19

List of Background Papers:

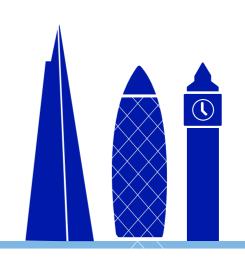
None

Staynton Brown, Director or Diversity, Inclusion and Talent 020 3054 7276 stayntonbrown@tfl.gov.uk Contact Officer:

Number:

Email:

Diversity and Inclusion Dashboard Report





TfL - Diversity & Inclusion Dashboard

Quarter 4, 2018-19

	Measure and comparator	Gender	Ethnicity	Disability	Faith or Belief	Sexual Orientation	Source	Frequency	Status:
Declaration	Declaration rates	ALL HMRC Definition	82.7% -	52.5% -	46.5% -	47.7% -	SAP	Quarterly	Result is within the tolerance level of 95% -
	Senior Managers Economically Active London population	28.1%	7.1% 36.0%	2.6%	7.4%	5.6%	SAP	Quarterly	110% of comparator*
Overall Diversity	All Staff Economically Active London population	23.7% 46.0%	37.0% 36.0%	4.2%	20.0% 22.0%	6.5% 5.1%	SAP	Quarterly	Result is higher
	Pay gap Government Guideline	20.5% 5.0%	9.2% 5.0%				SAP	Quarterly	than 110% of the comparator*
	Applicants Economically Active London population	26.6%	51.7%	3.1%	25.4% 22.0%	5.5%	Taleo	Quarterly	Result is Lower
Hiring	Shortlisted for role Economically Active London population	24.3% 46.0%	51.6% 36.0%	2.9%	25.5% 22.0%	5.1%	Taleo	Quarterly	than 95% of the comparator*
	Hires Economically Active London population	32.6% 46.0%	46.8% 36.0%	3.0%	21.0% 22.0%	6.3% 5.1%	Taleo	Quarterly][]
	Total engagement Majority population total engagement	59.4% 57.3%	62.2% 56.4%	48.7% 58.4%	59.7% 58.9%	54.5% 59.3%	Viewpoint 2018	Annual	
Inclusion	Inclusion index Majority population score	44.5% 46.0%	46.0% 46.6%	34.9% 46.2%	46.1% 47.1%	43.0% 46.9%	Viewpoint 2018	Annual	
inclusion	Minority Harassment & Bullying cases Majority Harassment & Bullying cases	0.6% 0.2%	0.2%	6.4% 0.3%	0.3%	0.6%	SAP	Quarterly	
	Minority Grievance cases Majority Grievance cases	1.3% 0.4%	0.5%	0.5%	0.4% 0.1%	0.7%	SAP	Quarterly	*Where a positive result is a lower score
	Performance: Low standard/Improvement Majority population low performance	3.2% 3.4%	5.1%	7.5% 3.4%	4.4%	3.3% 3.2%	SAP	Annual	in the minority characeteristic, green is
Performance	Performance: High standard/Role model Majority population high performance	26.8%	17.4%	18.2%	19.6%	29.7% 25.6%	SAP	Annual	between 90% and 105% of the comparator
Promotion	Promotion Minority population	34.5% 23.7%	37.1% 37.0%	3.3% 4.2%	19.0% 20.0%	6.9% 6.5%	SAP	Quarterly	score, blue is lower than 90% and red is
Leaving	Leavers Minority population	25.7% 23.7%	22.5% 37.0%	3.1% 4.2%	7.6% 20.0%	3.4% 6.5%	SAP	Quarterly	higher than 105% of the

TfL - Diversity & Inclusion Dashboard Quarterly Comparison

Quarter 4, 2018-19

	Measure and comparator	(Gender	E	Ethnicity	С	Pisability	Fait	h or Belief		Sexual ientation	Source	Frequency	Status:
Declaration	Declaration rates Last Quarter's Minority result		ALL HMRC Definition	0	82.7% 82.4%	0	52.5% 52.2%	1	46.5% 45.8%	1	47.7% <i>47.1%</i>	SAP	Quarterly	Result is between -1% and +1% of last
	Senior Managers Last Quarter's Minority result	0	28.1% 28.4%	1	7.1% 8.4%	1	2.6% 2.7%	\	7.4% 9.1%	0	5.6% 5.5%	SAP	Quarterly	quarter's result
Overall Diversity	All Staff Last Quarter's Minority result	0	23.7% 23.8%	0	37.0% 36.8%	0	4.2% 4.1%	0	20.0% 19.9%	\	6.5% 6.6%	SAP	Quarterly	Result is better than last
	Pay gap Last Quarter's Minority result	1	20.5% 21.2%	1	9.2% 9.7%							SAP	Quarterly	quarter* ↓↑
	Applicants Last Ouarter's Minority result	1	26.6% 27.3%	1	51.7% 50.0%	1	3.1% 2.7%	1	25.4% 24.4%	1	5.5% 5.0%	Taleo	Quarterly	Result is worse than last quarter*
Hiring	Shortlisted for role Last Quarter's Minority result	1	24.3% 25.6%	1	51.6% 60.9%	1	2.9% 2.8%	1	25.5% 31.0%	\	5.1% 5.2%	Taleo	Quarterly	
	Hires Last Quarter's Minority result	1	32.6% 36.6%	1	46.8% 29.6%	1	3.0% 2.0%	1	21.0% 13.3%	1	6.3% 5.5%	Taleo	Quarterly	
	Total engagement Last Year's Minority result	↔	59.4% 59.6%	1	62.2% 61.1%	1	48.7% 48.0%	\	59.7% 60.5%	1	54.5% 52.7%	Viewpoint 2018	Annual]
la disetan	Inclusion index Last Year's Minority result	1	44.5% <i>43.2</i> %	1	46.0% 45.3%	1	34.9% <i>31.2</i> %	0	46.1% 46.0%	1	43.0% 38.8%	Viewpoint 2018	Annual	
Inclusion	Minority Harassment & Bullying cases Last Quarter's Minority result	1	0.6% 0.4%	1	0.2% 0.2%	↑	6.4% 3.6%	1	0.3% 0.2%		0.6% 0.5%	SAP	Quarterly	1
	Minority Grievance cases Last Quarter's Minority result	1	1.3% 1.0%	1	0.5% 0.4%	1	12.1% 8.1%	↓	0.4% 0.5%		0.7% 1.0%	SAP	Quarterly	
	Performance: Low standard/Improvement Last Year's Minority result	1	3.2% 3.0%	↓	5.1%	1	7.5% 6.4%	1	4.4% 3.8%		3.3% 5.6%	SAP	Annual	*Where a positive result is a lower score
Performance	Performance: High standard/Role model Last Year's Minority result	1	26.8% 25.3%	1	17.4%	1	18.2%	0	19.6%	1	29.7% 29.3%	SAP	Annual	in the minority characeteristic, green arrows
Promotion	Promotion Last Quarter's Minority result	1	34.5% <i>36.3%</i>	0	37.1% <i>37.4</i> %	↓	3.3% 4.0%	\	19.0%	↓	6.9% 7.3%	SAP	Quarterly	will go downwards and red arrows will
Leaving	Leavers Last Quarter's Minority result	1	25.7% 24.9%	1	22.5% 22.0%	1	3.1% 2.7%	\	7.6% 7.7%	1	3.4% 3.5%	SAP	Quarterly	go upwards

[page left intentionally blank]

Safety, Sustainability and Human Resources Panel

Date: 10 July 2019



Item: Employee Health and Wellbeing Strategy

This paper will be considered in public

1 Summary

1.1 To provide the Panel with an update on proposals to create a Health and Wellbeing Strategy.

2 Recommendation

2.1 The Panel is asked to note the update.

3 Background

- 3.1 Sustaining and improving the health and wellbeing of our workforce is critical to delivering our Business Plan.
- 3.2 There is an existing Health and Wellbeing Improvement Programme (HWIP) currently led by our Occupational Health team. However, the current programme is based upon the traditional top down 'health promotion' model, which is not fully effective in delivering a demonstrable return on investment, quantifiable performance metrics and ensuring clearer management accountability. A new approach to managing the health and wellbeing is required.
- 3.3 It is also important that health and wellbeing is not only seen as a response to sickness absence, but instead places a greater onus on improving general wellbeing. This will lead to an improvement in a number of our TfL Scorecard measures, particularly employee engagement and our inclusion index.

4 Developing a new Health and Wellbeing strategy

- 4.1 The development of a new Health and Wellbeing Strategy will seek to introduce a more holistic and comprehensive approach to improving the health and wellbeing of our workforce. This will ensure we create a safer, more caring and compassionate organisation, with a workforce best equipped to deliver our business plan priorities.
- 4.2 This requires changing the view that wellbeing is the accountability of Occupational Health alone, to one where there is collective ownership, input, investment and action from across the organisation.
- 4.3 The strategy will respond to the demographic health profile of the organisation, responding to existing health inequalities, and addressing the wider determinants that create good health and wellbeing.

- 4.4 A working group has been established which draws upon stakeholders from across the organisation. Drawing down on expertise from Occupational Health, Facilities, Communications, Learning and Development, Diversity and Inclusion, Tech and Data, HR, Trade Unions and our Staff Network Groups.
- 4.5 The Health and Wellbeing strategy will be implemented through:
 - (a) having a clear understanding of our workforce and local health and wellbeing needs;
 - (b) planning and promoting health and wellbeing events, activities, training and supportive information to enable employees to identify and be aware of both their own health but also that of their colleagues;
 - (c) promoting the health and wellbeing of our employees through policies, guidance and dedicated campaigns;
 - (d) encouraging a network of health and wellbeing champions across the organisation, engaging with managers to raise an awareness and understanding of wellbeing; and
 - (e) ensuring a strategic communications plan in which health and wellbeing information and support is readily available and accessible.
- 4.6 We are also developing a health and wellbeing App for our employees, which will provide a personalised platform for employees to monitor and track their own health. It will also allow direct access for the promotion of initiatives, campaigns and signpost Occupational Health and other support services.
- 4.7 We will also measure the success through a number of direct and indirect metrics:
 - (a) employee engagement with specific health and wellbeing initiatives;
 - (b) Viewpoint questions on wellbeing;
 - (c) workplace injuries;
 - (d) Wellbeing at work index;
 - (e) long term and short term sickness absence trends; and
 - (f) data from the health and wellbeing employee App.
- 4.8 Further information on the work taking place is attached at Appendix 1.

5 Next Steps

- 5.1 To continue the development of the strategy and programme, establishing an agreed set of health and wellbeing key performance indicators.
- 5.2 To provide regular updates to the Panel as this works progresses along with the finalised strategy later this performance year.

List of appendices to this report:

Appendix 1 – Health and Wellbeing Strategy Update slides

List of Background Papers:

None

Contact Officer: Staynton Brown, Director of Diversity, Inclusion and Talent

Number: 020 3054 7276

Email: StayntonBrown@tfl.gov.uk



Transport for London

Employee Health & Wellbeing Strategy Update - July 2019





Wellbeing: subjective state of being 'Wellbeing' healthy, happy, contented, comfortable and satisfied Engagement ' with one's quality of life. Mental/Emotional **Physical** Social **Occupational** WELLBEING Spiritual **Financial** Intellectual People Culture Leadership Management CIPD Wellbeing Pyramid

EVERY JOURNEY MATTERS

Benefits of a Wellbeing Program

- meta-analysis of 42 corporate programs (UK & US)

- 25% sickness absence
- \ 64% workers' days lost
- 50% compensation payments
- 10% staff turnover



Mental health absence – all TfL

Mental health related absence in 2017/18, made up **21%** of all sickness this has increased from **15%** in 2014 59,902 days

Were lost due to mental health related sickness in 2017/18, overall there has

been **279,179** sickness days for the year

Mental Health absence reasons



55% stress



16% depression



11% anxiety



11% other reasons



6% bereavement Mental health sickness has been on the increase since 2014 and we have 20154 seen an increase of 62% even though the population has only

_	
22,5	58
9	,
Э	
Day	/S

increased by 37%
2016 –
30,842
days





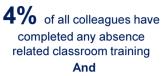
28,148 days----- 2017 – 53,223 ----days---

The viewpoint question "I am satisfied with the support available if I experience stress or pressure in the workplace" scored 56%

There was no change from the previous year

The viewpoint question "I feel there is adequate support in place to help me manage my health, safety and wellbeing" scored 61%

This was a 1% decline on the previous year



16% of all managers have completed any absence related classroom training





16% of all colleagues have completed any absence related eLearning

And

49% of all managers have completed any absence related eLearning

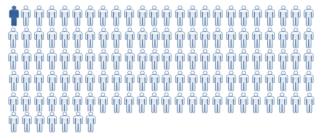


We have

243

Mental health first aiders.
This equates to 1 per 117

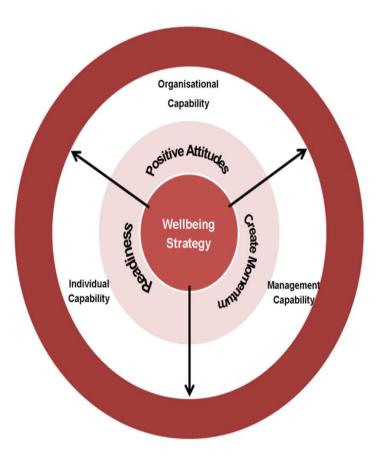
colleagues





Requirements of a new Health & wellbeing Strategy:

- That it is integrally tied to delivering our priorities with a very strong business case, understood by all
- To have a robust measure of Health & Wellbeing to guide prioritisation, focus and spend
- The Wellbeing strategy must be fully endorsed and visibly led by the TfL Executive Committee, and leaders across our business
- Managers become more skilled and confident to support their own and team's wellbeing
- People feel like they have the capacity to cope with the pressures they experience at work



Robertson Cooper Good Days at Work Wheel

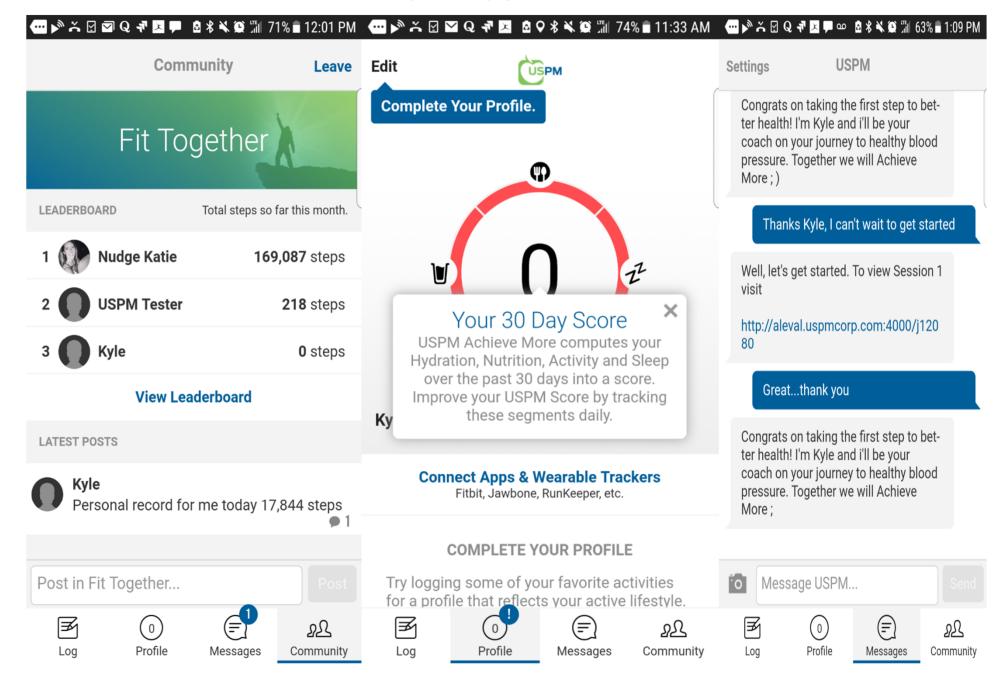


Health & Wellbeing Strategy development update

- ✓ TfL Executive Committee New approach to health and wellbeing strongly supported by the Commissioner Mike Brown
- ✓ Managing Director ambassador and Chair of the first pan-TfL Health and Wellbeing strategy group Gareth Powell
- ✓ Health & Wellbeing Strategy Steering Group established
 - ✓ first formal meeting held June 3rd, 2019
- ✓ Wellbeing a focus of the June 2019 Commissioner Top 300 Leadership event
- ✓ Stakeholder mapping completed
- ✓ Implementation and Communication Plans
- Defined Champions from across our business
- ✓ Beginning to establish Key Performance Indicators and intervention metrics



Sample App Dashboard



Target - 15 Key Health Risks

Health Risk Measure High Risk Criteria

Alcohol More than 14 drinks/week or binge drinking once or more in past month

Blood pressure Systolic >139 mm Hg or Diastolic >89 mm Hg

Body mass index 27.8 (men) 27.3 (women)

Cholesterol >239 mg/dl

Existing medical problems Heart problems, cancer, diabetes, or stroke

Fasting blood sugar Fasting Sugar Borderline High (≥100 and <126mg/dL), or High (≥126mg/dL)

Fatty diet High fat foods consumed once a day, several times a day, or several times a week

HDL cholesterol <35 mg/dL

Illness days >4 days last year
Perception of health Fair or poor

Physical activity Never

Safety belt usage Safety belt never or sometimes used

Smoking Current smoker/tobacco user

Stress High

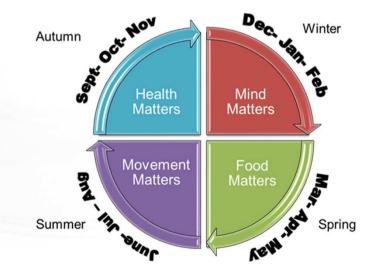
Use of meds for relaxation Weekly or almost every day

Total Risks Assessed 15

Overall risk levels

Low risk 0-2 high risks Moderate risk 3-4 high risks

High risk 5 or more high risks





WORKPLACE HEALTH

1 ASSESSMENT

INDIVIDUAL

(e.g. demographics, health risks, use of services)

ORGANIZATIONAL

(e.g. current practices, work environment, infrastructure)

COMMUNITY

(e.g. transportation, food and retail, parks and recreation)

4 EVALUATION

WORKER PRODUCTIVITY

(e.g. absenteeism, presenteeism)

HEALTHCARE COSTS

(e.g. quality of care, performance standards)

IMPROVED HEALTH OUTCOMES

(e.g. reduced disease and disability)

ORGANIZATIONAL CHANGE, "CULTURE OF HEALTH"

(e.g. morale, recruitment/retention, alignment of health and business objectives)



2 PLANNING & MANAGEMENT

LEADERSHIP SUPPORT

(e.g. role models and champions)

MANAGEMENT

(e.g. workplace health coordinator, committee)

WORKPLACE HEALTH IMPROVEMENT PLAN

(e.g. goals and strategies)

DEDICATED RESOURCES

(e.g. costs, partners/vendors, staffing)

COMMUNICATIONS

(e.g. marketing, messages, systems)

3 IMPLEMENTATION

PROGRAMS

(e.g. education and counseling)

POLICIES

(e.g. organizational rules)

BENEFITS

(e.g. insurance, incentives)

ENVIRONMENTAL SUPPORT

(e.g. access points, opportunities, physical/social)



[page left intentionally blank]

Safety, Sustainability and Human Resources Panel



Date: 10 July 2019

Item: Strategic Risk Update - SR2 Talent Attraction and

Retention

1 Summary

1.1 This paper is to present an update to the Panel on the management of TfL's Strategic Risk 2 (SR02) - Inability to attract, recruit, engage, develop and retain talent in key competencies.

1.2 A paper is included on Part 2 of the agenda, which contains exempt supplemental information pertaining to the strategic risk deep dive. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business and financial affairs of TfL that is commercially sensitive and likely to prejudice TfL's commercial position. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendation

2.1 The Panel are asked to note paper.

3 Current Status

- 3.1 SR02 is the Level 0 Strategic Risk capturing the role of our people in the delivery of our Business Plan, Mayoral objectives, and the risk to delivery of these should we not have the right people, in the right roles within the organisation
- 3.2 This risk covers multiple stages in the employee life cycle, from our ability to attract key skills and capabilities, to our ability to retain key talent at senior manager level or in scarce skill areas.
- 3.3 Unlike some of the Level 0 strategic risks, the responsibility for preventing the likelihood and impact of this risk occurring does not sit solely within one business area. Talent development and engagement are the responsibility for all of our line managers.
- 3.4 HR oversees the management of this risk and is delivering interventions to mitigate against it, with clear accountabilities against each control or mitigation identified.

4 Causes

- 4.1 Low employee engagement indicates we are not getting the best from our people, which leads to lower productivity. It also impacts our ability to retain talent. There are multiple causes of low engagement itself, with actions to address these being covered in more detail in a separate paper to be presented at this meeting.
- 4.2 Ongoing organisational change and change "fatigue" may also impact our ability to attract and retain key talent. This may also play a role in reduced mobility of talent within the organisation and the impact of this on talent development due to fewer perceived opportunities in the future.
- 4.3 Remuneration constraints resulting from our financial challenge may be a contributing cause, specifically relating to senior talent and our ability to both attract and retain people. This is coupled with an increasingly buoyant and competitive external employment market.

5 Preventative Controls in place

- 5.1 A new organisation wide Strategic Workforce Planning methodology is being implemented to identify our demand for work in the future, what skills we need to deliver it and ensure that we have a talent pipeline for our critical roles.
- 5.2 Talent management involves the identification of key high potential people across the organisation and ensuring their careers and development is actively progressed. This includes career conversations and development plans.
- 5.3 We will continue to identify and align people activity and risk across the organisation, ensuring that people risks sitting within different business areas are captured and mitigated appropriately.
- 5.4 We continue to review wider labour market trends, ensuring that we have an external as well as internal focus towards our people risks. These include structured benchmarking exercises, best practice sharing and wider trend forecasting.

6 Planned mitigations in progress

- 6.1 Talent development initiatives such as our Leadership Foundation, Talent Boards, Maximising Potential conversations and Mentoring are at differing stages of being embedded across the organisation. This work aims to develop a diverse talent pipeline internally to supplement external recruits and play more of a role if our ability to attract or retain talent is constrained.
- 6.2 Enabling more effective delivery of organisational change through the development of our "Supporting people through change" toolkit and our People Impact Assessment tool. These seek to reduce the impact of organisational change on our people. This also ties in with the engagement with leadership theme which is a key driver of low employee engagement.

- 6.3 Each leader across the organisation is leading improvements within their areas to improve how engaged their employees feel. We have also commissioned a detailed diagnosis to identify the key drivers of persistent low engagement within London Underground, and to identify which interventions would have the greatest impact on improving this measure.
- 6.4 The health and wellbeing of our people is integral to improving how engaged they feel. A Health & Wellbeing Strategy is being developed to promote mental and physical wellbeing of our employees, through the use of data and technology, leading to a more healthy and engaged workforce.
- 6.5 Whilst our strategic workforce planning is a preventative control in place, for the first time we will be embedding this into our annual business planning process. This process is an opportunity to assess the future skills required for us to deliver our Business Plan and the deliverables contained within it. This will have a particular focus in our Major Project and Engineering directorates.
- 6.6 Work is also taking place to consolidate different people data sources held across the organisation using more intelligent software solutions. This will enable more insight to be generated from our people data by drawing links between the different sources, better informing other and allowing more efficient targeting of our people interventions and mitigations.

7 Risk Exposure

- 7.1 SR02 is difficult to quantify with certainty as there are differing levels in which this risk could manifest across the organisation, each with a differing level of impact. There is also variability in the successful application of mitigations in place which is harder to detect which will impact the risk exposure.
- 7.2 Currently, of the four criteria Finance and Stakeholder confidence are outside of the required tolerance.
- 7.3 For Finance, we have assessed the impact of this risk as very high. Not having the right people with the right skills and capabilities can have significant cost implications on projects. We are also restructuring our procurement and supply chain function, and it will be critical that we identify the correct resource for these key roles to limit financial exposure of activities across the business. Given the assessment criteria, whilst we will aim to reduce the impact of the risk, reducing the probability of this risk occurring through the interventions mentioned is more feasible.
- 7.4 The impact of this risk occurring on Stakeholder Confidence has also been identified as high. Again the aim is to reduce this via the probability of the risk occurring rather than the impact itself.

Appendices:

A paper containing exempt supplemental information is included on Part 2 of the agenda.

List of Background Papers:

None

Contact Officer: Tricia Wright, Chief People Officer

Number: 020 3054 7265

Email: <u>TriciaWright@tfl.gov.uk</u>

Safety, Sustainability and Human Resources Panel



Date: 10 July 2019

Item: Transformation Programme Update

This paper will be considered in public

1 Summary

1.1 This paper provides an update on the Transformation Programme.

2 Recommendation

2.1 The Panel is asked to note the paper.

3 Transformation Programme Background

- 3.1 The changes we are making are reducing operating costs and increasing sources of revenue to enable delivery of the Business Plan.
- 3.2 The programme has delivered very substantial, recurring savings. In 2018/19, like-for-like operating costs reduced for the third consecutive year. Total operating costs were £345m lower than budget with £166m the result of savings from core costs.
- 3.3 In 2018/19, we worked with the trade unions to review 20 business areas and 2,100 roles. This has contributed to an overall reduction in the number of posts by 1,176. Significant change has enabled us to remove duplication, reduce management layers and streamline teams.
- 3.4 We are continuing with this programme which includes further reducing back and middle office costs over the next three years by 30 per cent and building our capability to raise revenue.
- 3.5 Our initial cost reduction programme largely concentrated on 'vertical', divisional organisational change. We are now looking at further cost reduction through end-to-end processes and structural integration 'across' the organisation.

4 Current Organisational Change Activity

- 4.1 The latest phase of organisational change was launched on 22 May 2019 with staff and trade unions in the following three business areas:
 - (a) **Finance**: The Finance function drives revenue growth and cost reduction to deliver an operating surplus by 2022/23. The proposed change will reduce the size of the function and align it to the new, streamlined Finance leadership structure.
 - (b) **Business Services**: Business Services provides HR and Finance transactional services across TfL (eg payroll, accounts payable etc.), and

data and reporting that allows us to run our business and support front line service delivery. The proposed change will achieve further cost reduction and revenue opportunities through simplification and structural integration 'across' end-to-end processes.

- (c) Investment Delivery Planning (IDP): Sponsorship of TfL's capital investment programme is currently delivered by a number of teams in Surface and London Underground. The proposed change will integrate all sponsorship activities into a single function. A two phased transformation approach will ensure the changes proposed within IDP will not disrupt delivery of critical projects and will enable the increased pace of delivery required.
- 4.2 In this phase we are reviewing 469 roles with an estimated recurring annual saving of £9.6m and a one-off, non staff saving of £2.6m. The estimated reduction in posts, subject to consultation, is 113. The actual reductions may be lower than this as we will remove current vacancies and Non Permanent Labour before considering any redundancies.

5 Developing our Business Services Function

- 5.1 Proposals for the design of Business Services are based on a review of eight core processes that sit across multiple functions including HR, Commercial and Finance. These processes were assessed against industry best practice.
- 5.2 Following the process reviews, we have developed action plans to support the development of these and our new organisational design. These include technology enhancements, policy changes, process improvements, staff engagement and training activities. These will enable us to transition to the new structure later this year.
- 5.3 Creating a central Business Services function allows us to bring together all our people and talent who deliver similar services. We will create an exciting new career path for staff; as this is a common business area in other organisations, staff will be able to specialise in the business services profession. We will also use Business Services as a talent pipeline for other functions in TfL, encouraging staff to move from this team into other specialist areas such as HR and Finance.

List of appendices to this report:

None

List of Background Papers:

None

Contact Officer: Andrew Pollins, Transformation Director

Number: 020 3054 8109

Email: AndrewPollins@tfl.gov.uk

¹ The core processes being reviewed include: Hire to Retire / Employee Payments, Master Data Management, Order to Cash, Source to Pay, Record to Account, Projects, Reporting, Service Management and Helpdesk

Safety, Sustainabiliy and Human Resources Panel

Date: 10 July 2019



Item: Members' Suggestions for Future Discussion Items

This paper will be considered in public

1 Summary

1.1 This paper presents the current forward programme for the Panel and explains how this is put together. Members are invited to suggest additional future discussion items.

2 Recommendation

2.1 The Panel is asked to note the forward programme and invited to raise any suggestions for future discussion items.

3 Forward Plan Development

- 3.1 The Board and its Committees and Panels have forward plans. The content of the plans arise from a number of sources:
 - (a) Standing items for each meeting: Minutes; Matters Arising and Actions List; and any regular quarterly reports. For this Panel these are the Health, Safety and Environment Quarterly Report and the Human Resources Quarterly Report.
 - (b) Regular items which are for review and approval or noting such as the Health, Safety and Environment Annual Report.
 - (c) Items requested by Members: The Deputy Chair of TfL and the Chair of this Panel will regularly review the forward plan and may suggest items. Other items will arise out of actions from previous meetings (including meetings of the Board or other Committees and Panels) and any issues suggested under this agenda item.

4 Current Plan

4.1 The current plan is attached as Appendix 1. Like all plans, it is a snapshot in time and items may be added, removed or deferred to a later date.

List of appendices to this report:

Appendix 1: Safety, Sustainability and Human Resources Panel Plan.

List of Background Papers:

None

Howard Carter, General Counsel 020 3054 7832 Contact Officer:

Number:

HowardCarter@tfl.gov.uk Email:

Safety, Sustainability and Human Resources Panel Forward Planner 2019/20

Membership: Kay Carberry CBE, Dr Nina Skorupska CBE (Vice Chair), Bronwen Handyside, Dr Mee Ling Ng OBE, and Mark Phillips.

Abbreviations: Managing Director (MD), Customers, Communication and Technology (CCT), London Underground (LU), Surface Transport (ST), CPO (Chief People Officer), D (Director), DIT (Diversity, Inclusion & Talent) and HSE (Health, Safety & Environment)

4 September 2019		
Quarterly Health, Safety and Environment Performance Reports (to include resilience, assurance and compliance issues)	D HSE	To note
Human Resources Quarterly Report	СРО	To note
Review of CIRAS Report and Themes	D HSE	Annual review to note
Safety Management System Update	D HSE	To note
Promotion of Green GB Week	MD CCT	To note
Bus Driver Facility Improvements	MD ST	To note
Workplace Violence Strategy Update	D HSE	To note
Disability Roadmap	D DIT	To note
Our People Plan 2019/20	СРО	To note
Pedestrian Behaviour and Risk Management Research	D City Planning	To note
Sustainability in Major Events	MD ST / MD CCT	To note
Strategic Risk Update	D HSE	To note
Transformation Update	D Transformation	Standing Item

13 November 2019				
Quarterly Health, Safety and Environment Performance Reports (to include resilience, assurance and compliance issues)	D HSE	To note		
Platform Train Interface Update	D HSE	To note		
Human Resources Quarterly Report	СРО	To note		
Vision Zero Update	D CP	To note		
Air Quality Update	D CP	To note		
Strategic Risk Update	D HSE	To note		
Transformation Update	D Transformation	Standing Item		

12 February 2020				
Quarterly Health, Safety and Environment Performance Reports (to include resilience, assurance and compliance issues)	D HSE	To note		
Human Resources Quarterly Report	СРО	To note		
Bus Driver Facility Improvements	MD ST	To note (6 monthly standing item)		
Strategic Risk Update	D HSE	To note		
Transformation Update	D Transformation	Standing Item		

Regular items

- Quarterly HSE Performance Report standing item
- HR Quarterly Report standing item
- Bus Driver Facility Improvements six monthly update
- Transformation update standing item
 Review of CIRAS Report and Themes annual

• Strategic Risk

[page left intentionally blank]

Agenda Item 19

By virtue of paragraph(s) 3 of Part 1 of Schedule 12A of the Local Government Act 1972.









