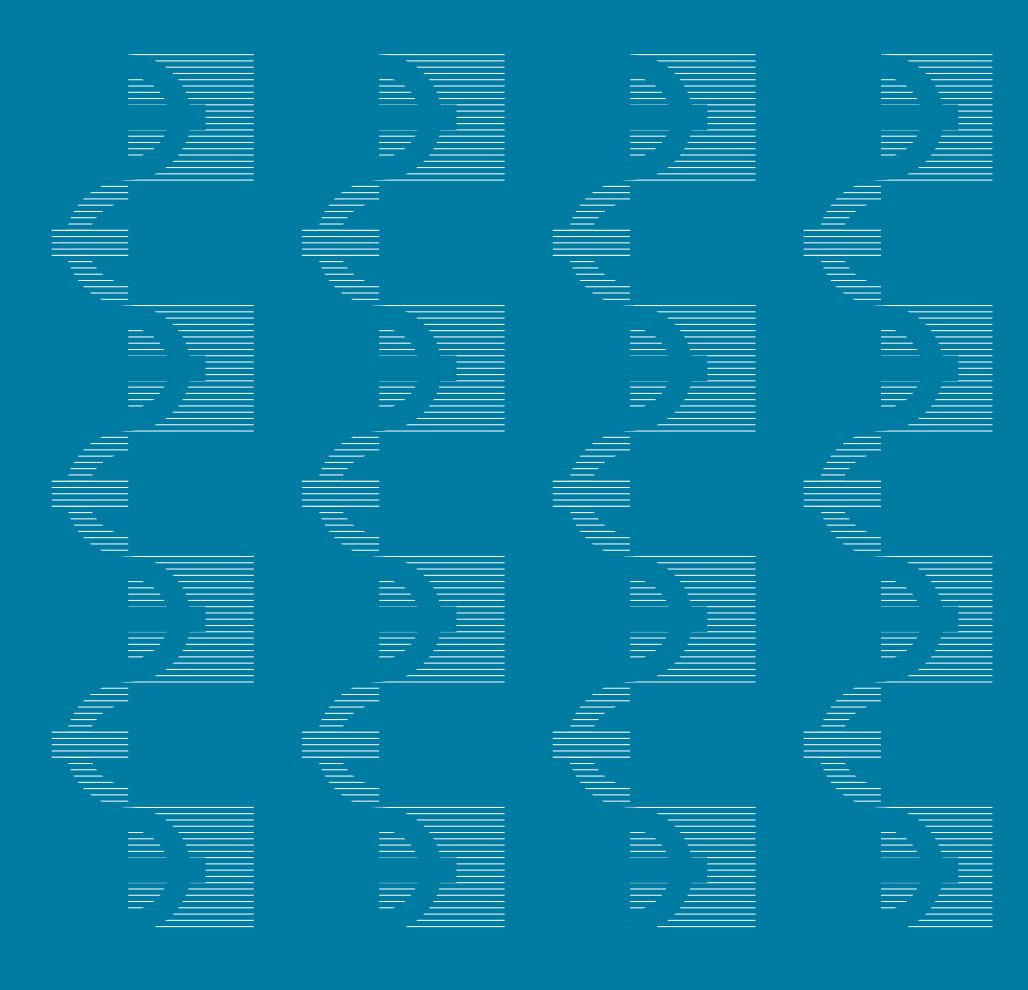
Transport for London Safety, Health and Environment report

Quarter I (I April-27 June 2020)





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Introduction

Our commitments to safety, health and the environment are reflected in our transport strategy objectives. These include our Vision Zero goal to eliminate deaths and serious injuries from the transport network, to improve the health and wellbeing of our workforce and to support the transition to sustainable and zero carbon transport. Our strategy for the achievement of these objectives is twofold: to prevent harm and ensure we meet all our legal and regulatory obligations, and to use targeted interventions to materially improve outcomes.

This report summarises our performance in the last quarter and identifies strategic trends. It covers the timeframe from I April–27 June, almost the entire extent of the Government's lockdown period in response to the coronavirus pandemic, when transport demand was deliberately and significantly reduced. The report sets out some of the key ways in which we have kept our customers and staff safe during this challenging time, as well as looking forward into the next quarter and our main safety, health and environmental challenges in the year to come.

This quarter, tragically, two members of the public died on the public transport network: a London Underground (LU) customer at Waterloo station, and a nine-year-old boy who died when he gained access to LU tracks. Road deaths and serious injuries were significantly reduced compared to the same period in 2019, but despite lockdown measures, 19 people sadly died on the roads. Universally, we have seen significant reductions in absolute

terms in customer and workforce injuries, and in assaults against our staff. The greatly reduced activity on all transport networks has led these trends.

We note this quarter the Prevention of Future Deaths report following a passenger fatality at the Docklands Light Railway (DLR) Limehouse station in January 2020, and the outcome of the coroner's report.

Our environmental data covers London's public transport operations and the activities we and our suppliers carry out. We report on our direct energy usage and carbon dioxide (CO₂) emissions – both significantly decreased in QI as we operated reduced rail services. We also report annual bus emissions results across our bus fleet as of 3I March 2020.

Throughout this report, we use 'our customers' to refer to direct users of our services. 'Our workforce' includes our directly employed staff as well as people working in our supply chain. For both our customers and our workforce, we report on performance using data we collect directly from our operational businesses. 'Our streets' refers to all of London's roads and their users, including borough streets. Where we report safety data for our streets, we use data collected by the Metropolitan Police Service (MPS) and the City of London Police in line with Government requirements.

While this report covers QI, casualties on our streets are reported by calendar months in line with Government guidance on the reporting of road injuries.



The Mayor's Transport Strategy

Our role is to enable London to move safely and sustainably, in line with the goals of the Mayor's Transport Strategy (MTS), increasing the attractiveness of public transport and making cycling and walking easier and more convenient options. We work in partnership with London's boroughs, businesses, the police, local communities, consumer organisations and others.



Scorecard

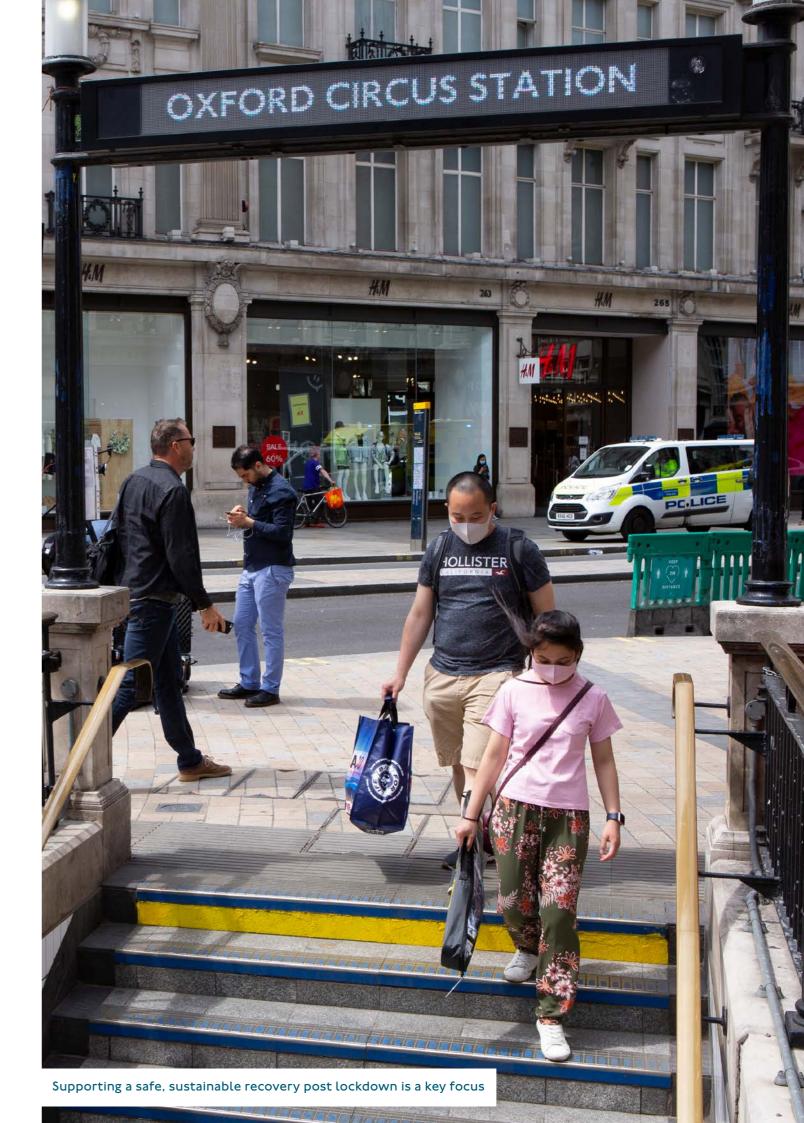
Scorecard measures

Directly derived from the MTS, our scorecard measures our success in achieving MTS outcomes.

Our progress towards 2022 Vision Zero goal scorecard			QI
Measure	Unit	Target	Actual
People killed or seriously injured in road traffic collisions per million journey stages	Killed or seriously injured per million journey stages	0.78	0.60
Customer and workforce killed or seriously injured per million passenger journeys	Killed or seriously injured per million journeys	0.20	0.10

This quarter, we are using the newly adopted half-year scorecard in response to the profound challenges faced as a result of the coronavirus lockdown measures. Due to the unprecedented changes in travel demand during lockdown and the uncertain period of recovery ahead, it is not meaningful to present targets in absolute terms or to rely on previous performance in forecasting. Consequently, the targets we have adopted are rate-based and reflect our dual ambition of supporting a safe and sustainable recovery while also aligning to the longer-term trajectory required to meet our Vision Zero ambitions.

Both scorecard results outlined above are better than target. The most significant difference between target and actual relates to the numbers of customers and staff killed or seriously injured, where the most serious incidents occurred at only half the expected rate.



Safety, health and environment performance overview

In this section, we provide an overview of key trends for the year and the areas where we are targeting performance improvements.

Reporting period

Most data covers the quarter from I April-27 June 2020. In some cases, information is provided by the MPS in calendar months instead of by financial year – where this is the case, it is noted next to the relevant graph.

Data caveat

We have identified a systems issue affecting bus injury records submitted to TfL since April 2020. The number of people injured while using a bus forms part of the overall scorecard and customer and workforce injury measures. The likely impact is that the number of people seriously injured is slightly under-reported and total bus injuries are slightly over-reported. We are undertaking a comprehensive investigation of this issue, and will reflect any subsequent changes to the figures reported here in our Q2 report.

Our customer and workforce

It is with great sadness that we report two deaths this quarter: an LU customer died when alighting from a train, and a nine-year-old boy tragically lost his life after gaining access to LU tracks. No workforce fatalities were recorded, but one LU employee was seriously injured as a result of tripping over a manhole cover. Details of these incidents are provided in the Reportable injuries section on page 9.

Overall, there were 423 injuries of all severities across all customer modes, and 167 TfL employee injuries. This represents a significant reduction of 80 per cent and 64 per cent respectively compared to QI 2019/20, and corresponds to an 86 per cent reduction in passenger journeys across all customer modes.

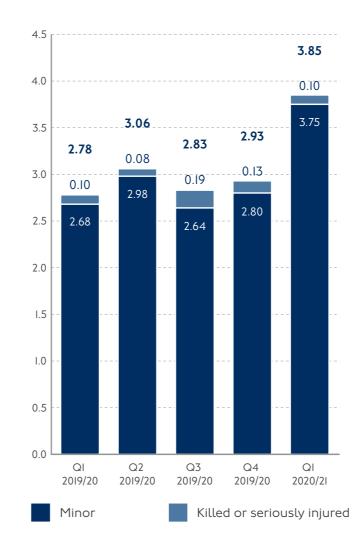
Although in absolute terms, customer and workforce injuries reduced overall, when normalised against passenger journeys, total injury rates increased during QI compared to previous quarters. The rise is largely driven by an increase in minor injuries within the bus and TfL Rail modes.

Figure I reflects the decline in the number of customers and staff killed or seriously injured in QI against a broader slowdown of non-essential commuter journeys. Our customer and workforce killed or seriously injured per million passenger journeys scorecard result of 0.10 for QI is shown.

Changes to our employees' work patterns were variable during lockdown, with many frontline operational staff working as normal. Construction projects, with the exception of those that were safety critical, were predominantly paused. Most office staff were moved to homeworking or were furloughed.

Figure 1:

Customer and workforce injury rates per Im passenger journeys





0.20QI customer and workforce killed or seriously injured scorecard target



80% customer injury reduction compared

to QI 2019/20



64%

TfL employee injury reduction compared to

Our streets

This report provides provisional information on road safety performance in the first calendar months of 2020 as well as insights into trends that emerged during the coronavirus lockdown period. As noted in the Introduction, road collision data is collected by the police in calendar months.

The second calendar quarter of 2020, April-June, predominantly covers the period of lockdown. During this quarter, a total of 505 road users were killed or seriously injured – this represents a 47 per cent reduction on the equivalent calendar quarter in 2019. Of this total figure, sadly, 19 road users lost their lives – this compares to 29 over the same period in 2019. Slightly more than half (53 per cent) of those who died in Q2 were users of powered two-wheelers.

The fall in deaths and serious injuries in Q2 can be attributed to the reduction in road user journeys during the quarter as a result of lockdown. However, as traffic on London's roads reduced, when collisions did occur, they were more likely to result in serious and fatal injuries as average driving speeds increased.

There was also a marked fall in pedestrian injuries during lockdown, which contributed towards the reduction in the number of people killed or seriously injured in Q2. When compared to the equivalent quarter in 2019, there was a 72 per cent reduction in the number of pedestrians who were killed or seriously injured.

Figure 2: Road users killed or seriously injured (reported in calendar quarters)

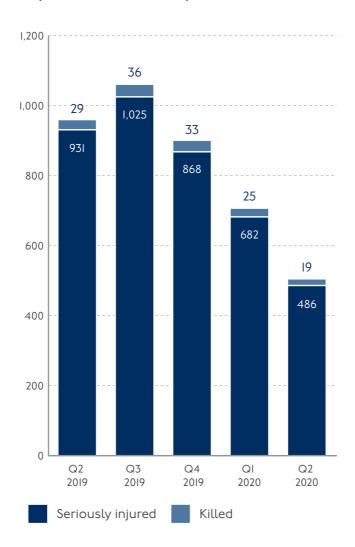
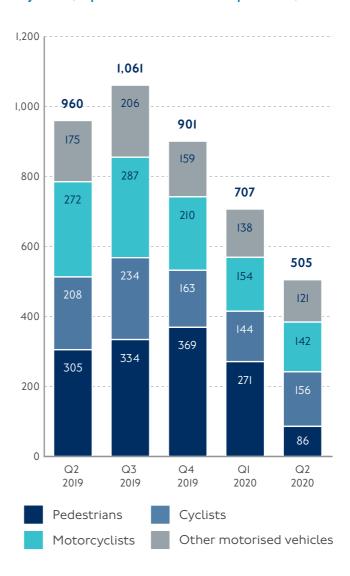


Figure 3: Vulnerable road users killed or seriously injured (reported in calendar quarters)



Reportable injuries

Tragically, there were two fatal injuries reported to our regulators this quarter, and our sincere condolences go to the families and friends of those who died.

- A 59-year-old man fell between a train and the platform when alighting from the train at Waterloo Tube station on 26 May 2020 and sustained fatal injuries when the train moved off. The Office of Rail and Road (ORR) and the Rail Accident Investigation Branch (RAIB) have been informed and are undertaking investigations. We have also instigated our own internal investigation. Our Safety, Health and Environment (SHE) team are working with LU to compile all relevant information for the investigations
- A nine-year-old boy died when he suffered an electric shock as he accessed the track at North Acton station. LU teams responded in accordance with standard procedure. The ORR was informed and is investigating. All information requested by the ORR has been provided

There were I4 injuries to our workforce that were reported to our regulators this quarter: I3 were minor and one was serious. The serious incident occurred on 30 April and involved a member of staff tripping over a manhole cover and sustaining injuries to the left side of his stomach. The injured member of staff was treated in hospital.

Significant incidents

Two significant incidents occurred this quarter:

- On 2I June, a southbound Chiltern train ran past a signal at danger and on through two sets of points to end up on the northbound track, 23 metres from a Metropolitan line train that was stationary in the platform at Chalfont & Latimer station. In this area, the trains are operated by Chiltern and the signalling is controlled by LU. The ORR and RAIB were notified and an investigation is under way. There were no injuries reported, but this incident is being treated as a significant near miss
- On 25 June, a wall collapsed adjacent to the track at East Ham, with a large amount of debris falling onto the tracks. No trains hit the obstruction, and noone was hurt. The ORR and RAIB were formally notified, and information was provided to the ORR. An internal investigation has begun



Work-related violence and aggression

TfL incident data shows that in QI there was a general reduction in work-related violence and aggression (WVA), including both physical and non-physical assaults on our staff. The long-term trend (calculated from 2015/16) for total assaults is that they are declining at a rate of 10 assaults per quarter on average. Before lockdown, the rate of decline was 2.7 assaults per quarter.

Figure 5 shows a slight upturn towards the tail end of the moving average line in QI 2020/2I. This was caused by a high rate of assaults in Q4 2019/20, driven predominantly by an increase in non-physical assaults on our employees. Despite this, the moving average trend is declining.

Overall, non-physical assaults made up the majority of acts of WVA towards our employees, with frontline staff experiencing most of the assaults. The most significant reduction was seen in the area of employee physical assaults, which have fallen by 78 per cent compared to QI 2019/20. The only increase recorded was that relating to supplier physical assaults (including bus drivers), which increased by six per cent compared to QI 2019/20.

'In QI there was a general reduction in work-related violence and aggression towards our staff'

This compares to crime data reported by the MPS and British Transport Police (BTP). The first calendar quarter of 2020/2I saw a significant reduction in transport-related crime due to the impact of the pandemic. However, the number of WVA incidents directed at bus drivers remained broadly similar to pre-pandemic levels. Crime data for QI shows that 416 frontline transport staff were the victims of WVA. This is 33 per cent down on the same quarter last year and 39 per cent down on the previous quarter except for incidents against bus drivers. Fewer than I0 per cent of the incidents against bus drivers involved violence with injury – the majority constituted verbal abuse and threatening behaviour.

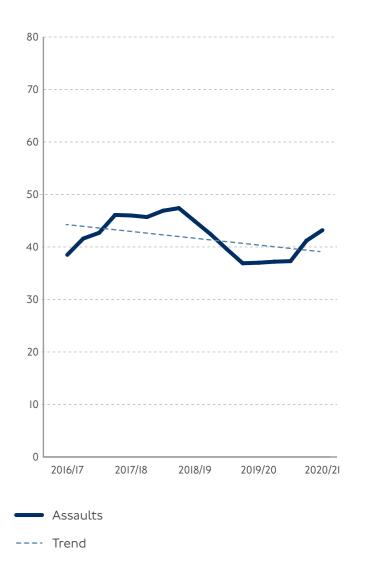
TfL recorded assaults - QI 2020/2I

Tfl recorded assaults - QI 202

Figure 4: Employee and supplier assaults per 1,000 employees



Figure 5: Assaults moving average per 1,000 employees



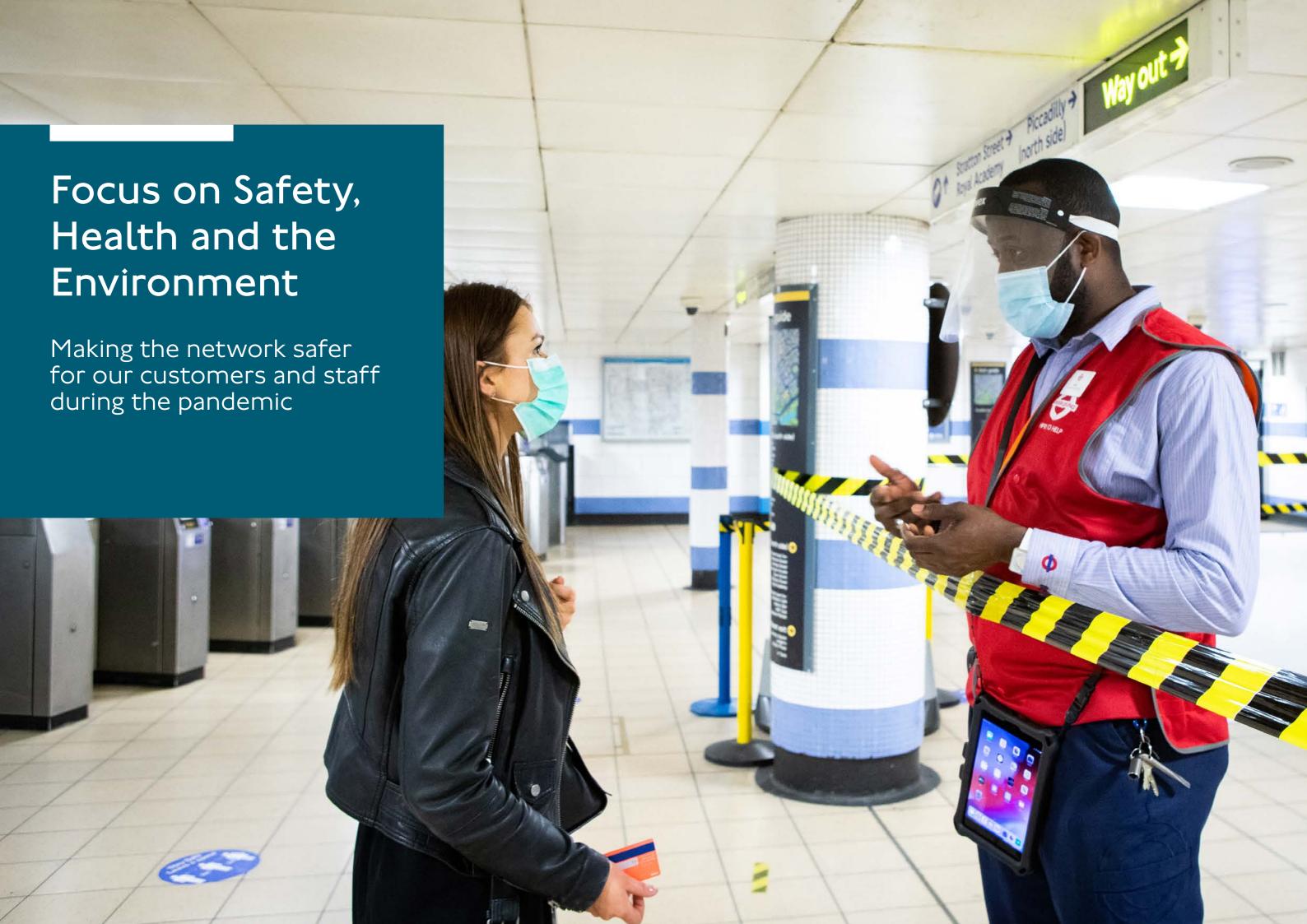


Significant positive prosecutions

During QI, many courts were closed because of the pandemic, and numerous hearings were postponed unless they were urgent. These cases will now progress through the judicial system. The cases highlighted below relate to those where the incident or court case took place during QI. These are positive outcomes from both the MPS and BTP in bringing perpetrators to justice for harming our people:

- On 3 November 2019, a member of staff was trying to close a station entrance at Stratford when a woman became aggressive and abusive. A man accompanying the female customer pushed the staff member in the face. BTP officers attended and made an arrest. The man was later charged to court but failed to attend, was found guilty in his absence and a warrant issued for his arrest. On 17 April 2020, a 19-year-old man was brought to Barkingside Magistrates' Court on warrant, fined £200 for common assault and ordered to pay his victim £150 compensation. He was also ordered to pay court costs of £300 plus a £32 victim surcharge
- On 3 December 2019 at Ruislip Gardens
 Tube station, a man abused and assaulted
 a member of staff by spitting in their face.
 He was later identified by the BTP through
 forensic analysis of a spit swab taken from
 the victim's uniform. He was charged with
 racially aggravated common assault, and
 on 7 May at Westminster Magistrates'
 Court he was sentenced to six months'
 imprisonment
- On 8 April, a man coughed directly in the face of a staff member at Lambeth North station, saying 'I have coronavirus', and

- walked off. The following day, the victim saw his assailant again and flagged down a passing police car. Police officers detained the man until BTP officers were able to attend. They took details and the man was remanded in custody where, following interview, he was charged with common assault. On II April at Westminster Magistrates' Court, a 3I-year-old man pleaded guilty to common assault and was sentenced to I2 weeks' imprisonment
- On I4 April, a bus driver on route 325 was spat at after the offender refused to pay his fare. The offender was found guilty on 25 May and sentenced to eight weeks' imprisonment, wholly suspended for I8 months, and ordered to pay £400 in compensation
- On 20 April, a man attempted to board a bus on Uxbridge High Street via the front doors and, when directed to use the middle doors, became aggressive and spat at the driver. He also attempted to punch him. The man was detained shortly afterwards and arrested. At the police station, he spat at an officer and claimed to have coronavirus. On 22 April at Uxbridge Magistrates' Court, he was sentenced to 10 months' imprisonment
- On 3I May, a man threatened a member of staff at Leicester Square Tube station and then spat at him. He left the station, continuing to shout and swear at the staff member. The victim later saw his assailant again and approached nearby police officers, who arrested the offender. He was interviewed and charged the following day. On I June, a 43-year-old man pleaded guilty to common assault and a public order offence, and was sentenced to 16 weeks' imprisonment



How London's transport system will be safe and healthy for our customers

The safety of our customers is our utmost priority. This quarter, a major theme has been keeping our customers safe from coronavirus. Throughout the pandemic, our response has been aligned to Public Health England (PHE) advice and guidance, with adjustments made as advice has evolved.

In this section, the initiatives are aligned to a common theme of making our network safer

Cleaning regime

We enhanced our cleaning regime in advance of the national lockdown: we introduced an anti-viral cleaning product at the end of February, and further intensified our cleaning regime from mid-March. Cleaning across our networks now includes additional treatments that kill viruses and bacteria on contact.

Since the start of the pandemic, we have routinely been using anti-viral disinfectant on all surfaces on our LU and DLR trains on a 2I-day cycle – this keeps surfaces uncontaminated for up to 30 days. This is on top of our existing cleaning regime.

Extensive daily cleaning with antiseptic chemicals will continue across the network, with a focus on touch points such as steering wheels, grab poles, doors and handles. These points are treated with additional hospital-grade anti-viral agents every night, after regular cleaning has been completed. As part of assurance checks, operators of our services are regularly confirming they are using anti-viral fluids. Cleaners are also being brought in during the day to clean customer contact points.

In our cycle hire operations, the I2 most popular docking stations are cleaned



Social distancing

Social distancing posters and stickers have been installed at all stations and tram stops, and comprehensive advice given via our website and other communication channels. In total, I40,000 posters, notices and distancing points have been installed.



Hand cleaning

Good hand hygiene plays a key role in stopping the spread of coronavirus. To enable effective hand hygiene, we have installed hand sanitising points at key interchange points across various parts of the network.



We have installed hand sanitisers at

1,063

locations at TfL Rail,bus, river, DLR and LU stations



Additional protection measures

To maximise compliance with the requirement to wear face coverings on public transport, we have provided more than 2.75 million face coverings to customers. For those who cannot reasonably wear face coverings while travelling on public transport, we have been working closely with public health

specialists to ensure measures have been put in place, such as providing an exemption card that can be downloaded from our website. The scheme follows similar awareness-raising initiatives such as the 'Baby on board!' and 'Please offer me a seat' badges.

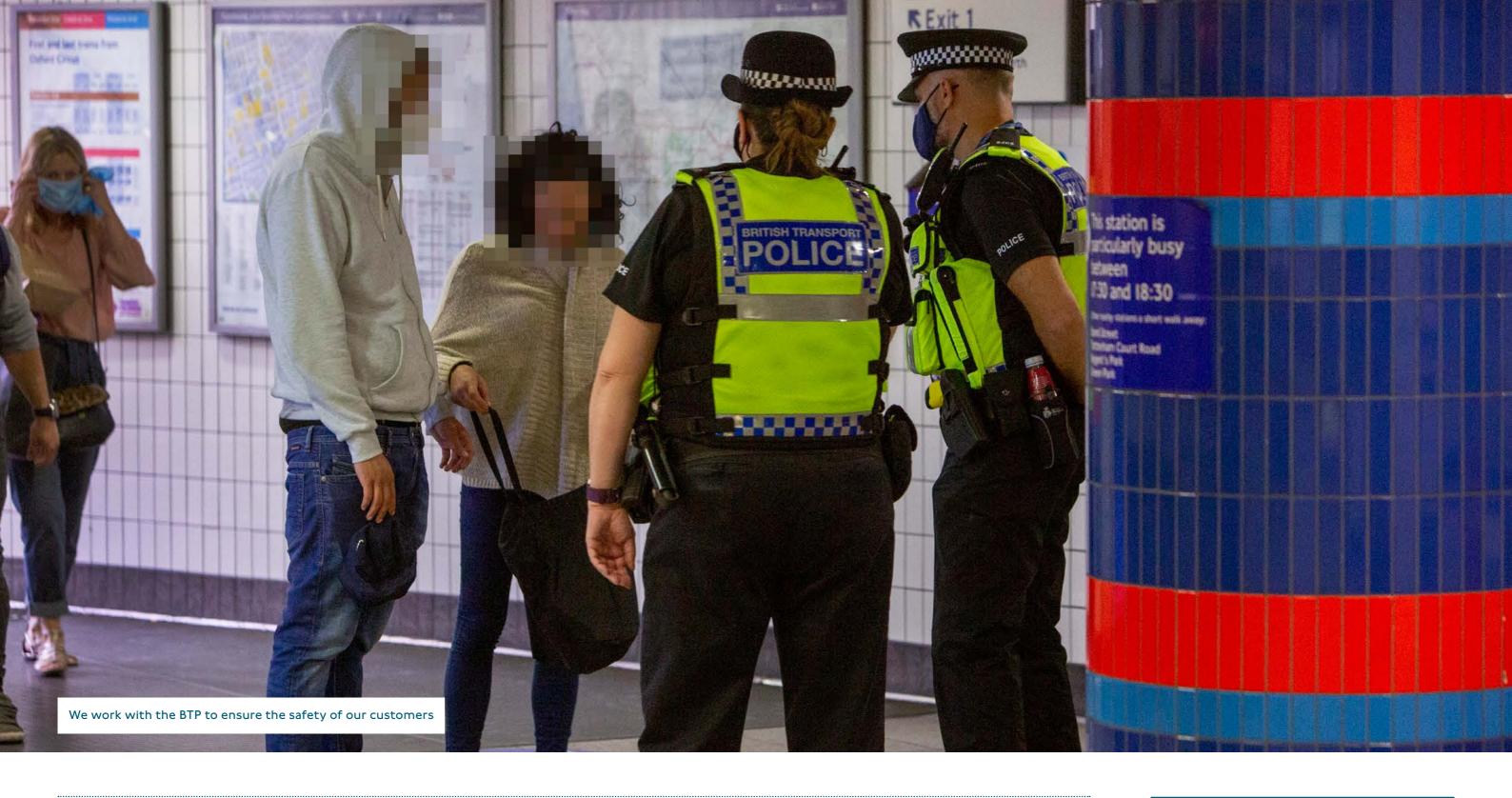
Face coverings

The use of face coverings that cover the nose and mouth for the entire journey when on public transport became mandatory on 15 June.

We supplemented the national regulations to protect passengers and staff, making the wearing of face coverings a condition of carriage on all our transport services. We also issued a notice under the TfL byelaws stating that customers must wear a face covering at our rail and Underground stations, unless they are exempt.

For the first three weeks, the police and operations officers in our Compliance, Policing and On-Street Services directorate were deployed to priority locations across the transport network to provide guidance and encourage compliance. Compliance levels were generally very high, at around 90 per cent during the morning peak. Once we are confident that all customers understand the requirements, we will move to an enforcement phase on 4 July. Anyone failing to comply with the rules and regulations could be stopped from travelling, issued with a £100 Fixed Penalty Notice or prosecuted.

Face coverings have also been issued to all our operational staff and are a part of our first responder kits, which are in place for staff to use when providing first aid to customers. We have given clear guidance and direction in line with PHE advice in the use of first responder kits. In addition, we have issued aprons and gloves.



Engagement and enforcement activities

In QI, revenue protection officers were stood down from regular duties and deployed to key transport hubs and interchanges to promote social distancing, prevent overcrowding and give general advice.

These officers have also been enforcing the mandatory wearing of face coverings

on public transport, including at our five busiest bus stations. At the time of writing this report, they have stopped more than 74,000 people from getting onto public transport services without face coverings. Most who were approached complied and were able to continue their journeys, while those who failed to comply were

stopped from travelling. We have also worked closely with the BTP on messaging to customers, providing a presence at key transport locations. We work jointly to provide guidance to the travelling public on safe behaviour and the mandatory use of face coverings in accordance with Government guidance.

'Revenue protection officers have stopped more than 74,000 people from getting onto public transport services without face coverings'

Road safety

From 20 March-I2 July, there was a 44 per cent decrease in the number of people killed or seriously injured compared to the same period in 2019. However, travel became riskier in London during lockdown – the decline in road usage was greater relative to the number of road casualties.

Weekly monitoring throughout QI showed that the number of people killed or seriously injured per million passenger journeys more than doubled at one point in QI, and peaked during May. The proportion of road collisions that were fatal or serious rose during lockdown and was at least partly linked to increased vehicle speeds due to reduced congestion on the roads. A focus on increased on-street speed enforcement activity resulted in an extra 8,84I traffic offence reports compared with the same period last year, a rise of 2I4 per cent.

As we emerge from lockdown, we are putting safety at the heart of our recovery planning and road space management by continually analysing and predicting how travel patterns and network changes impact on road risk. As we continue to develop a variety of responses to the management of emerging road risk trends, we are stepping up speed enforcement, to ensure consistent road safety messaging across our marketing and communications. We are also ensuring that new pop-up street infrastructure incorporates appropriate control measures to reduce road danger.

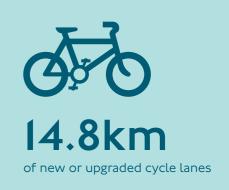




Managing our road space

Part of the restart and recovery work has seen the construction of 25 social distancing schemes providing an additional I2,846 square metres of pedestrian space on the Transport for London Road Network (TLRN), and I4.8km of new or upgraded

cycle infrastructure completed on the TLRN and borough highway. In addition to this are an extra 204 cycle parking spaces on the TLRN, and the funding of 58I schemes across 30 London boroughs, with more scheme bids being assessed. All have been supported by I,534 signals timing changes to allow for I99 additional 'green man' crossing hours each day.



Work continues to improve bus safety

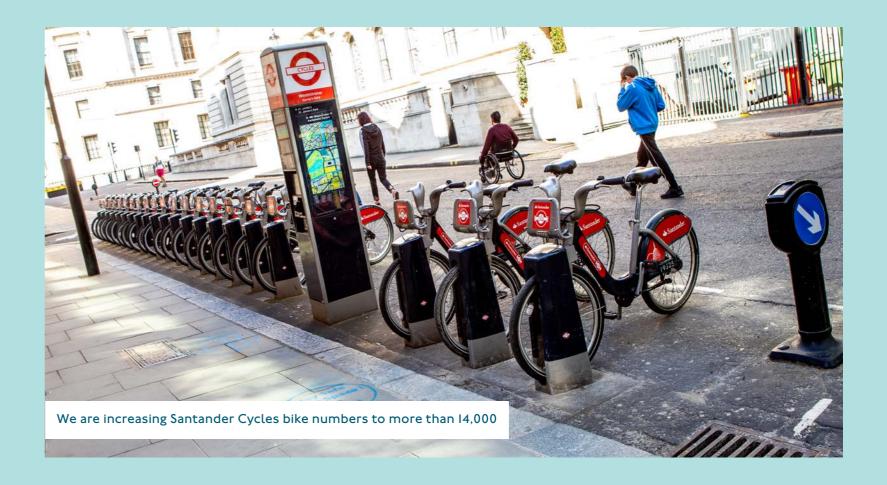
A total of I55 buses now use the Acoustic Vehicle Alerting System to increase the external sound of our quiet-running buses. Although the technology is in place, monitoring was paused during lockdown.

We have retrofitted 97 per cent of the compatible bus fleet with mirrors that give better visibility of bus blind spots, and we aim to reach 100 per cent in Q2, once it is safe to resume works.

Some of the new buses entering the fleet are also starting to include safety features stipulated for 2021. These are being voluntarily introduced early by bus manufacturers and operators to bring greater safety benefits sooner. Measures include camera monitor systems to replace external bus mirrors, thus improving indirect visibility for the driver and eliminating pedestrian strikes and vehicle/road furniture damage; and brake toggling, which aims to reduce instances of pedal confusion.

Exploratory work for the bus Intelligent Speed Assistance (ISA) retrofit programme is under way. This tool uses a digital speed map of London's roads to help limit how fast buses can go. We are working with bus manufacturers to enable ISA on existing bus models, carrying out testing on a small number of buses, and then embarking on a full-scale retrofit programme.





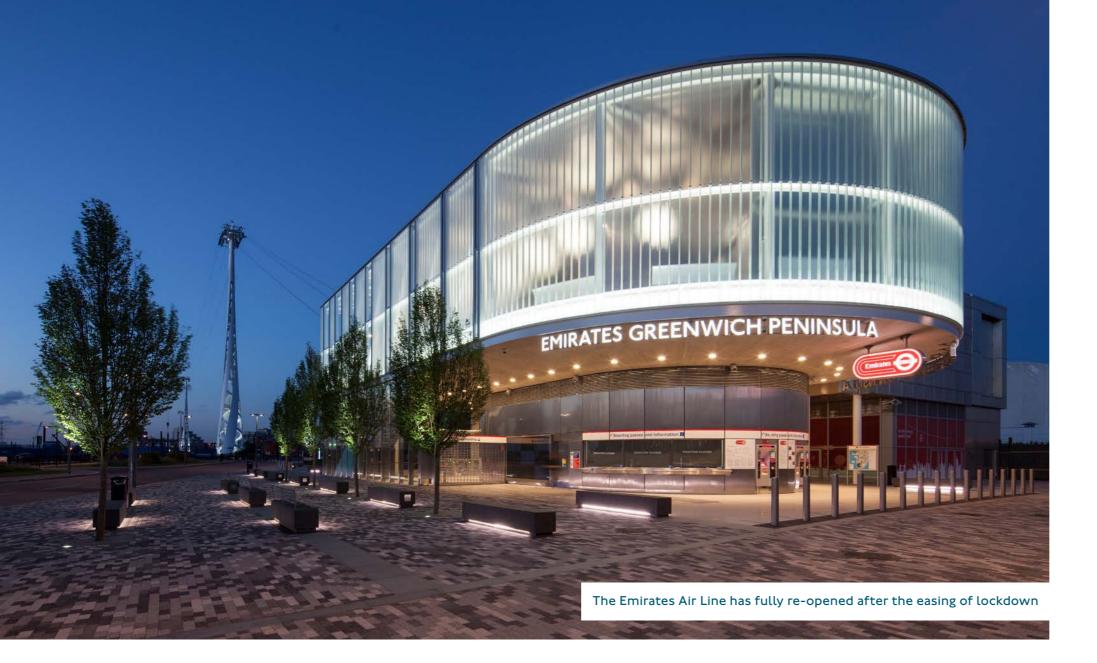
Improving protection in our other operational areas

On I0 June, we set out plans to expand the Santander Cycles scheme to keep up with unprecedented demand. This May saw I,I20,620 hires, the greatest number made during any May in the I0-year history of London's cycle hire scheme. To keep up with demand, a further six docking stations will be built by the end of the year. We are also making I,700 more Santander Cycles bikes available, bringing the total to more than I4,000 – an increase of nearly I5 per cent and the largest single increase in bikes for the scheme since 20I3. In QI, we provided NHS workers with a code to waive the 24-hour access fee, making any journey under 30 minutes free and therefore helping key hospital staff get to work.

Our Taxi & Private Hire (TPH) business area has been working extensively with the Scientific and Technical Advisory Cell to assess measures to prevent coronavirus transmission through the use of invehicle screens separating passengers from drivers.

Although work in this area is ongoing, we have issued advice aligned with Government guidance to the TPH sector, making it clear that drivers must wear face coverings unless they have a valid exemption.

Our Dial-a-Ride service supports some of London's more vulnerable people in going about their daily lives. During lockdown, we moved to single-occupancy or same household journeys in order to protect other customers. Our drivers were also required to wear gloves and masks when assisting passengers in boarding and alighting. We enhanced our customer screening procedures and vehicle cleaning regime, and with many regular passengers shielding and staying at home in line with Government advice, we sought to use our Dial-a-Ride vehicles in other ways, including in the delivery of medical prescriptions and food parcels to those unable to travel.



Returning to normal

Following the easing of lockdown, we have ramped up services on our networks. We continue to keep in place enhanced cleaning regimes, social distancing, the availability of hand sanitisers and all other measures for the safety of our customers and workforce.

We worked with University College London (UCL) this quarter to determine that front-door boarding on our buses with additional protective measures is safe for our staff. This a positive step towards returning services to normal next quarter. We have implemented UCL's recommendations to seal off the fare-paying opening in the driver's protective shield as well as speaker

holes, and have increased ventilation inside the cab (either through the window or the air-conditioning system).

Considerable effort has been made to safely restart both the topographical assessment, and Knowledge of London, centres. A backlog of more than 6,000 outstanding assessments is rapidly being cleared within our TPH business.

The Emirates Air Line opened on I4 April to support key workers travelling to and from the NHS Nightingale hospital, and re-opened fully to the general public following the relaxation of Government restrictions on I5 June. The service also provided free travel for a limited period, from 07:00-09:30, to ease pressure on the Jubilee line.

'We are taking important steps to ensure that people have the confidence to travel in a safe and sustainable way'



Future plans

We continue to work closely across all our operations, in line with Government advice, to ensure the safety of customers and staff, and to prevent the spread of coronavirus, safely restoring services as advice changes.

We are working with bus operators to reduce customer injuries, following an increase in slips, trips and falls during Q4.

Our Escalator Excellence campaign forms the basic standard we expect at all stations with escalators. It includes more specific customer announcements, such as wet weather warnings, helping vulnerable customers, and creating new posters and signage. In 2019/20, we took a targeted, evidence-based approach at the I2 stations with the greatest number of customer injuries. As we continue our recovery from the pandemic, we will use the evidence gathered in 2019/20 to make the Underground a safer place to travel in the future.

As lockdown eases, it is essential that London's streets are safe. We are taking a number of important steps to ensure that people have the confidence to travel in a safe and sustainable way. This includes reallocating road space for people to walk and cycle, working with the boroughs to support walking and cycling and implement low-traffic neighbourhoods, updating our marketing and communications to reinforce critical safety messages to drivers, and ensuring police enforcement prioritises high-risk locations and emerging trends for criminal and reckless road user behaviour.

We have also initiated a road safety research project focusing on driver distraction, which we plan to commission during Q2.

How London's transport system will be safe and healthy for our workforce

Coronavirus and staff absence

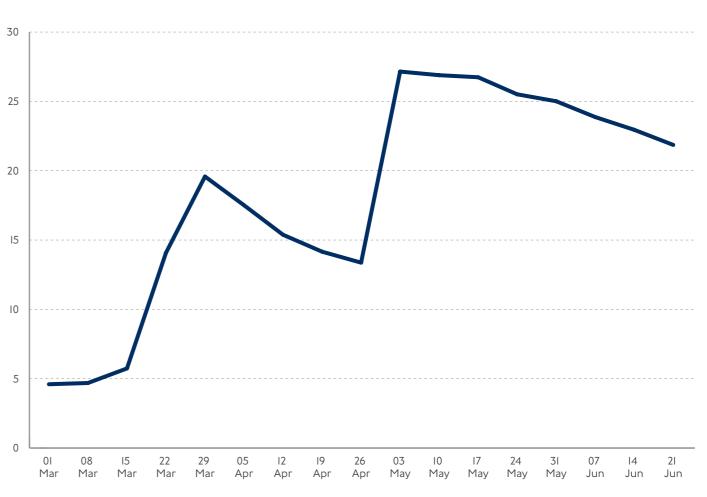
In QI, the impact of coronavirus was the dominant theme for our workforce. Tragically, since the start of the lockdown period, 44 people working on our network have died from the virus. Our sincere condolences go to their families, friends and colleagues.

In response to concerns about the overrepresentation of bus workers among those severely affected by coronavirus, we commissioned research to further understand whether their occupation led to increased vulnerability and what additional measures we could put in place. We also instigated an enhanced and tailored risk assessment process for vulnerable individuals, as evidence emerged that some population groups appear to be at greater risk of serious infection.

This quarter, there were 5,39I cases of coronavirus among our directly employed workforce. Of these, 83I resulted in absences of more than 28 workdays.



Figure 6: Staff unavailability due to coronavirus (%)



Staff unavailable due to coronavirus

Overall, 19.43 per cent of all our staff were absent in QI as a direct result of coronavirus. Coughs and colds accounted for 2.9 per cent of all staff absence in QI, while Special Domestic Leave (staff were self-isolating or shielding vulnerable family members)

accounted for 39 per cent. The remaining reasons for being absent were not directly as a result of the virus itself – 25 per cent of staff, for example, were placed on furlough (shown in Figure 6 by the spike in staff unavailability beginning on 26 April).

Figure 7: Staff absence by business area affected by coronavirus*

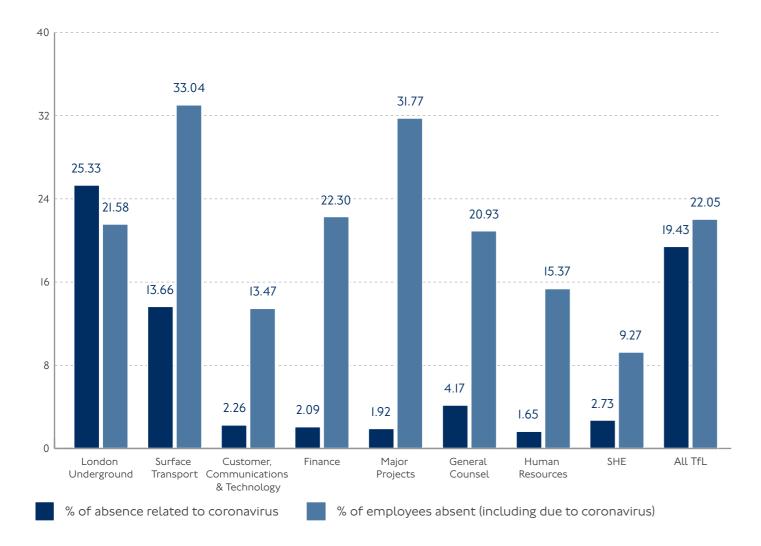
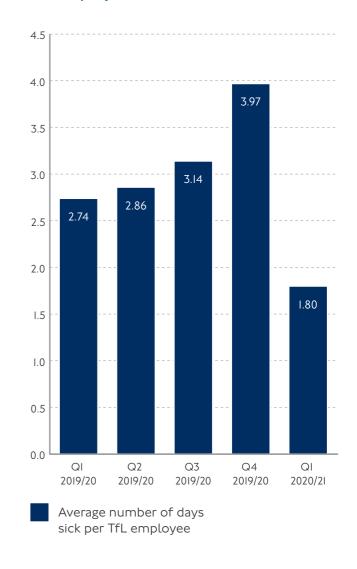


Figure 7 shows the percentage split in staff absence during QI by business area. Absences relating to coronavirus consisted of staff who, at any point during the quarter, either had symptoms of the virus or were on Special Domestic Leave.

In terms of total absence during the quarter, I3,30I staff were either absent through sickness or furlough. Of this figure, 57 per cent were on furlough at any given time during the quarter. No available frontline staff were furloughed, with the exception of a number of Dial-a-Ride employees.

With a significant proportion of our staff working from home, self-isolating or shielding, the average number of sick days per TfL employee during QI reduced to I.80 days. This ran counter to the increasing trend that we had been recording up to Q4 2019/20.

Figure 8: Average number of sick days per TfL employee



^{*} Figures include furloughed staff

The following section looks at the measures we have taken to reduce coronavirus transmission, and the support we are giving to our frontline and office-based staff

Measures taken to protect staff from coronavirus

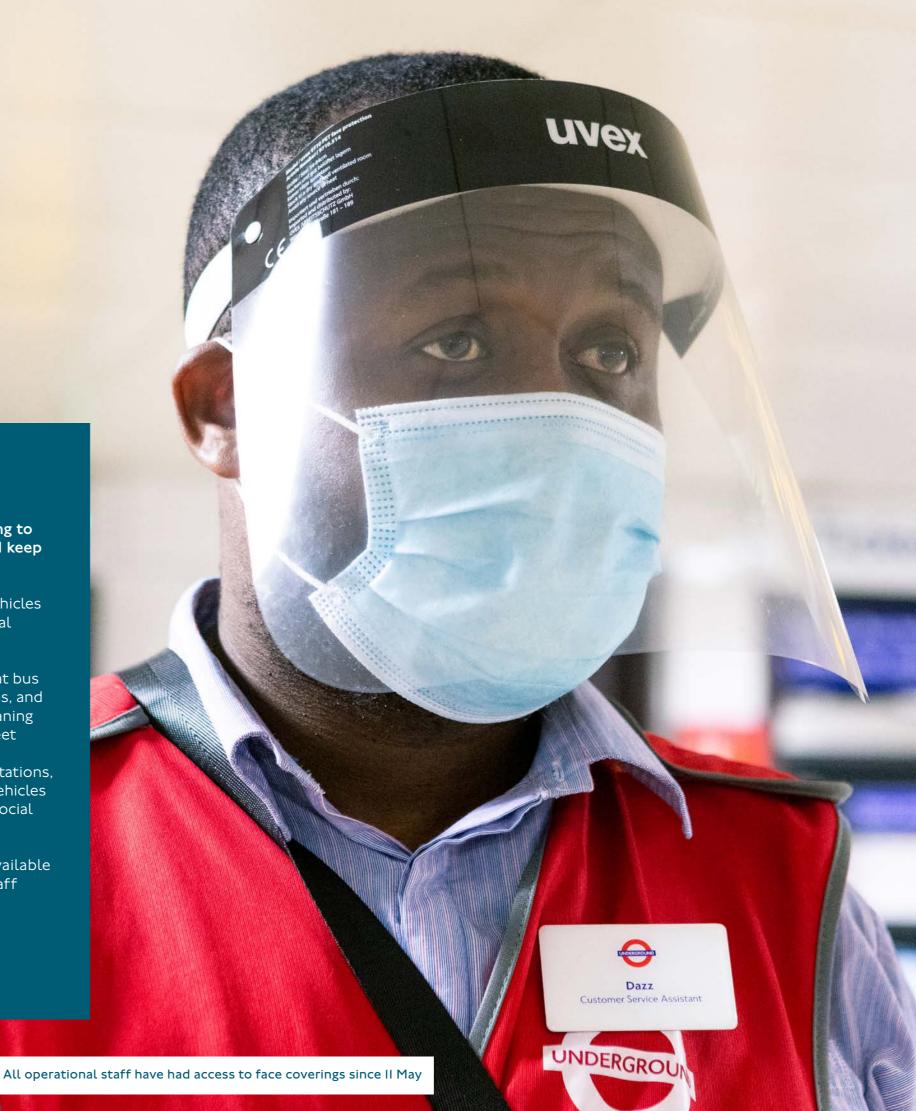
We have been working to make sure we are doing everything we can to keep our staff and the network safe for everyone (see adjacent box). Many staff occupational health assessments were undertaken remotely in this quarter, with telephone, video and online tools used to enable clinicians to support both individuals and groups. The service criteria were extended to physiotherapy and counselling services to offer help to a greater number of staff. We also added bereavement guidance for staff and managers to our internal resources alongside self-help tools, podcasts, guidance on lifestyle factors for maintaining and improving mental and physical health during the pandemic, and other relevant information.

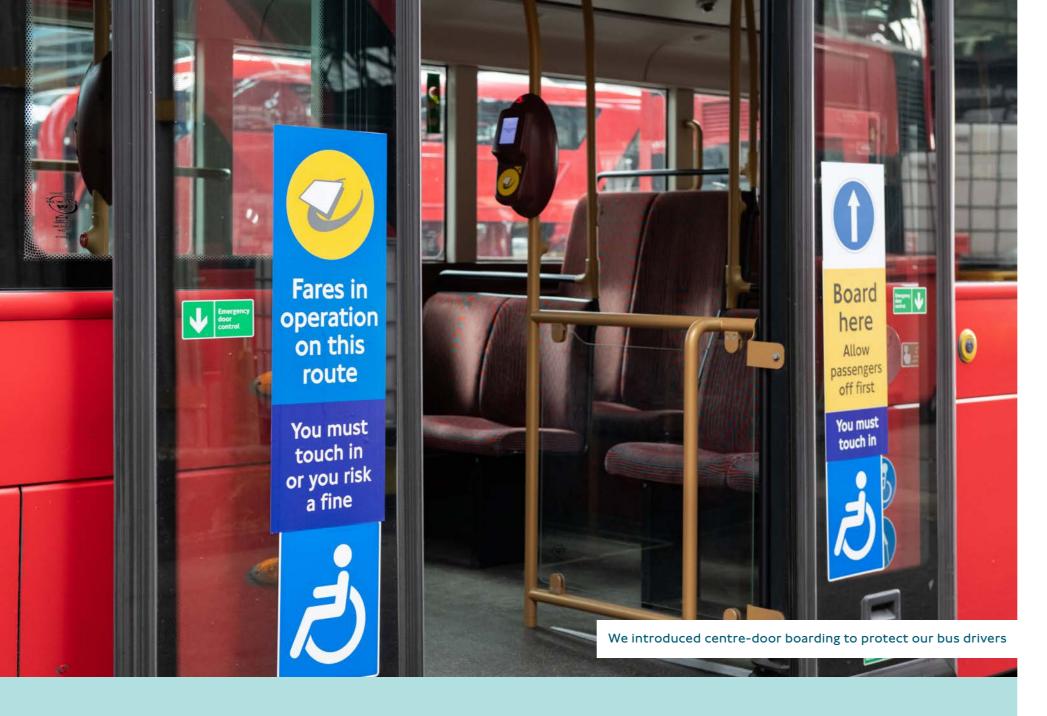
Our services were supplemented by innovative resources such as the self-help online platform SilverCloud, for supporting the treatment of mild to moderate mental ill health, and the Headspace app, which is free to our employees until at least August 2020. With so many of our staff working from home, we have also made available Back Online – an internet-based personalised self-management support system for people with back pain.



The measures we are taking to protect our workforce and keep the network safe include:

- Spraying premises and vehicles in our fleets with anti-viral disinfectant
- Providing hand sanitiser at bus and Underground stations, and ensuring that regular cleaning takes place across our fleet
- Installing notices in our stations, at bus stops and inside vehicles to better communicate social distancing requirements
- Making face coverings available to all our operational staff from II May, in line with Government advice





Adjustments to working arrangements to protect our workforce

We have adjusted our working arrangements to ensure compliance with social distancing. For our professional clinicians, we sourced full personal protective equipment where social distancing was not always possible. This way, we have been able to restart periodic and pre-employment medical examinations and enable other appointments to take place that could not be carried out remotely.

Although we operate a driverless system on our DLR services, there is one member of operational staff on each train, whose role it is to close the train doors, check tickets and assist with general customer safety and security. In QI, these staff were positioned at the front of the train, in an area cordoned off from the travelling public.

We also put in place safeguards for existing and returning bus drivers, such as isolating driver cabs from passengers, enhancing cleaning with anti-viral agents and bringing in centre-door boarding.

'We have delivered stress reduction and management resilience groups, as well as new coronavirus anxiety support groups'

Mental health awareness

We launched two new training courses during Mental Health Awareness Week in May: all our employees can now access the MIND Mental Health Awareness at Work e-learning course; and we also offer Managing Mental Health in the Workplace, aimed directly at managers. Both are available online via our eZone learning platform.

Using video-conferencing tools, group activity can now be undertaken for physiotherapy, mental health and drug and alcohol support services. The existing stress reduction and management resilience groups were delivered in this way, with new coronavirus anxiety support groups also set up for those in need. We also provided online group training for managers on how to support their own mental health and that of their teams during the pandemic.

Bus driver training

Delivery of Destination Zero, the safety training programme for London bus drivers, began in May 2019. The training course uses innovative virtual reality technology, designed to make the course engaging and insightful. Areas covered include hazard perception, hazard prediction, judgement and driver wellbeing. Driver training ceased when lockdown began, but we are currently exploring with bus operators how the training can restart safely, ensuring social distancing rules are complied with, without compromising the key objectives of the course.



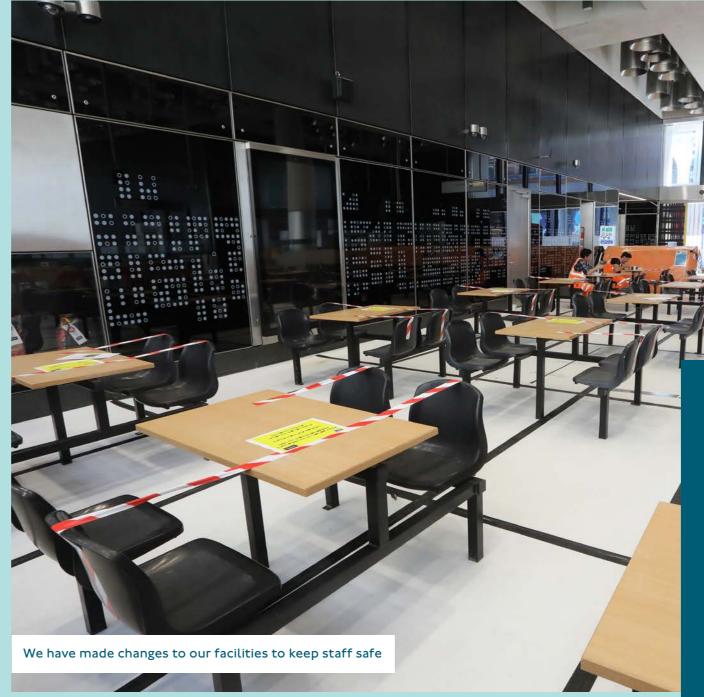


Staff fatigue

Work is ongoing to improve the management and monitoring of workforce alertness. We require, by August 2020, all bus operators to have in place a robust fatigue risk management system before any new route contract is let. All operators have complied with this, but some elements have been delayed due to the pandemic such as fatigue management training, detailed below. Some operators currently use a fatigue risk assessment tool, but this is a generic one aimed at shift workers and lacks sufficient detail for the bus industry. We will work with operators and the Unite union to scope the development of a bus industry-specific tool by a third party.

We have created a £0.5m Fatigue Innovation Fund, which can be bid into by bus operators. Originally intended to be launched in March, it has been delayed until the autumn due to the pandemic. The fund is intended to trial new technology and find innovative ways to change the safety culture within bus garages and has a focus on driver health and wellbeing.

In March, we appointed an external training provider to develop a bespoke training course for managers within bus garages, with the intention of rolling out fatigue training over the summer. While work on development of the course was paused between March and May, work resumed in June, and a three-hour online workshop is being developed, with an expected launch in Q3. We are working with both the operators and Unite to ensure this course is fit for purpose.



Preparing our staff as we restart services

As our transport services start to resume, we have introduced an assessment tool to evaluate employee fitness, and help managers assess whether their staff could return to work. Employees were asked to complete questionnaires, which were

then reviewed by occupational health clinicians. By the end of the quarter, more than I,000 individual assessments had been undertaken, with 59 per cent being judged as low/standard risk.

Face-to-face clinical activities restarted towards the end of QI following substantial work to ensure that we could do this safely within Government guidelines.

To restart face-toface clinical activities, we prepared a comprehensive risk assessment, and made key changes to our

 Changing seating arrangements

facilities, including:

- Installing Perspex screens at reception
- Changing consulting room layouts
- Putting up additional signage
- Installing hand sanitising points, and taking other measures, for infection prevention and control

Construction Safe Stop

One of our core values is to ensure the health and safety of those working on our sites as well as the surrounding communities. As such, on 24 March we took the decision to safely stop works across our construction sites. We and our suppliers reconfigured our sites to ensure adequate social spacing for our people, and implemented an 'exemptions' process to initially allow a small number of safety-critical construction activities to take place safely. Since these early exemptions, a peer review process has ensured that, as our construction portfolio remobilises, appropriate arrangements are in place to manage coronavirus risks.



Restarting construction

Following our instruction to bring most of the construction and related maintenance work on our sites to a Safe Stop (with some limited exceptions), our focus shifted on how to support the safe restart of activities towards the end of QI.



Measures we have put in place to restart construction safely include:

- Creating constructionspecific risk assessments for our staff
- Taking an active role in the development and support of a new Safe Start process
- Delivering a bespoke coronavirus induction for all members of staff returning to sites
- Developing the concept of the 'present when not present' approach to improve engagement with the workforce on site by people mainly working from home
- Ensuring we and our suppliers share learning arising from the pandemic.
 Work is also progressing on the specific themes of site safety, and technology & innovation



Future plans

In Q2, we will run a 'safety stand-up' event covering as many sites and construction projects as possible. This will be carried out virtually and will be aimed at engaging with suppliers and our workforce to maintain focus on all risks.

The 'present when not present' virtual session will be implemented across major construction sites.

To support staff who are working remotely, we will be running 'homework fit and learn' exercise and education classes. In Q2, we will also launch a campaign called Out of Sight but not Out of Mind, which will signpost remote workers and those on furlough to resources available from home, including special Wellbeing Wednesdays and a new fitness tracking app. Wellbeing Wednesdays will include a mixture of activity, education and group discussions on themes such as physical activity, wellbeing and mental health.

The individual coronavirus risk assessment process will be extended to cover those staff who are shielding in advance of the changes to Government guidance due to begin from I August. A major review of document control procedures has been under way in the Occupational Health department. This will help support upcoming reaccreditations for both the Railway Industry Supplier Qualifications Scheme and the sector-specific Safe Effective Quality Occupational Health Service.

At the beginning of September, Phase I of a major IT project will see occupational health case management activity move away from a paper-based process to a new digital platform. This will be limited to a few key processes at first, with a company-wide rollout planned for later in the year.



Transforming London's environment

Protecting and enhancing London's environment are priorities for the Mayor and TfL. We play a key role in delivering these priorities as set out in the MTS and London Environment Strategy, including improving London's air quality and achieving a zero carbon city.

Air quality

Data collated from the annual fleet survey reveals that emissions of nitrogen oxides (NO_x) from TfL buses reduced by approximately 63 per cent in 2019/20 compared to the previous year, as an increasing proportion of older buses were retrofitted to meet the Euro VI emissions standard, or replaced with new electric or hybrid buses. Particulate matter PM₁₀ emissions from the bus fleet reduced by 38 per cent over the same period.

Emissions of air pollutants from taxis and private hire vehicles (PHVs) were broadly similar in 2019/20 to the previous year, although this is in part due to updated reporting methodologies.

We are continuing to support emissions reductions from taxis and PHVs in London, including through the taxi delicensing scheme and regulations on zero emission capable vehicles. From I January 2020, all PHVs under I8 months old were required to be zero emission capable, and to meet the Euro 6 emissions standard when licensed for the first time.





Figure 9: NO_x emissions by transport type (tonnes)

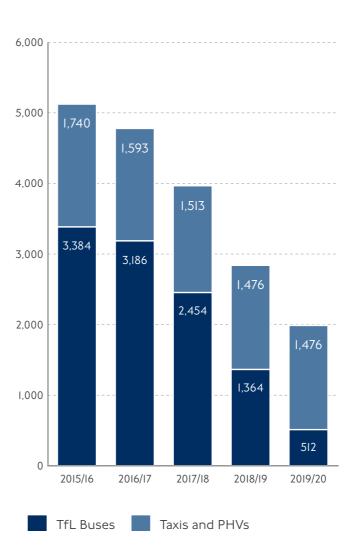
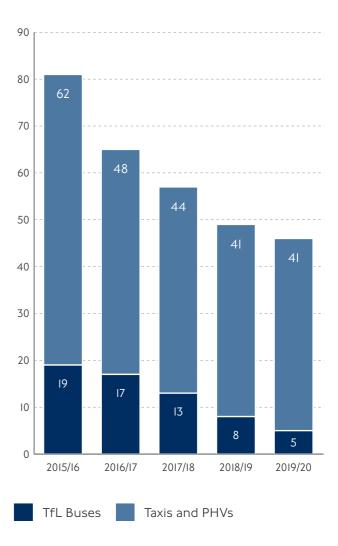


Figure 10: PM₁₀ emissions by transport type (tonnes)



Energy and carbon

Bus CO₂ emissions reduced by approximately 10 per cent in 2019/20 compared to the previous year, as we introduced further electric and hybrid buses into the fleet.

Total CO₂ emissions from all our public transport operations reduced by eight per cent in 2019/20, This was driven by the reduction in bus emissions and the decrease in carbon intensity of grid electricity for our rail services.

Figure II: Total CO, emissions from TfL services (ktonnes)

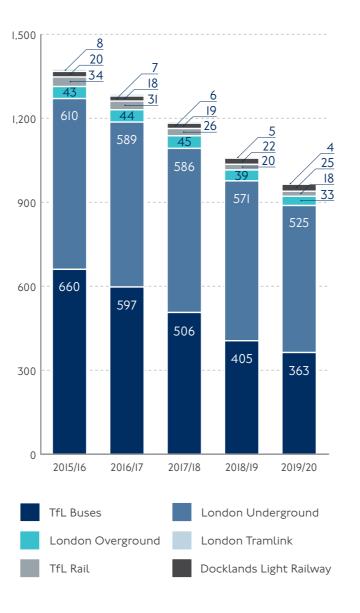
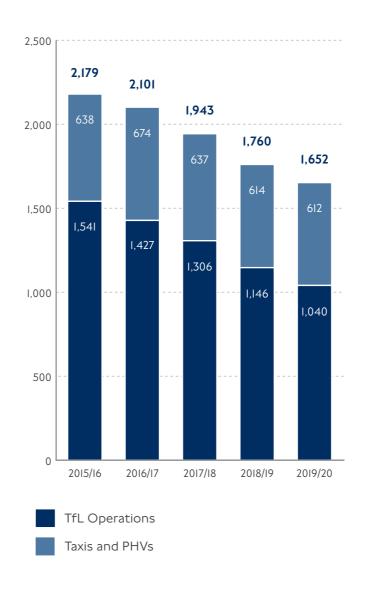
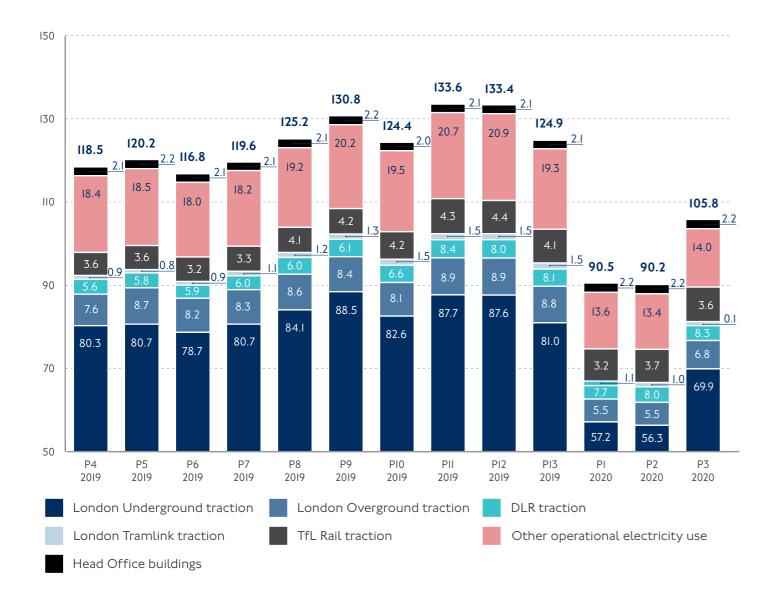


Figure 12:CO₂ emissions from TfL Operations, taxis and PHVs (ktonnes)



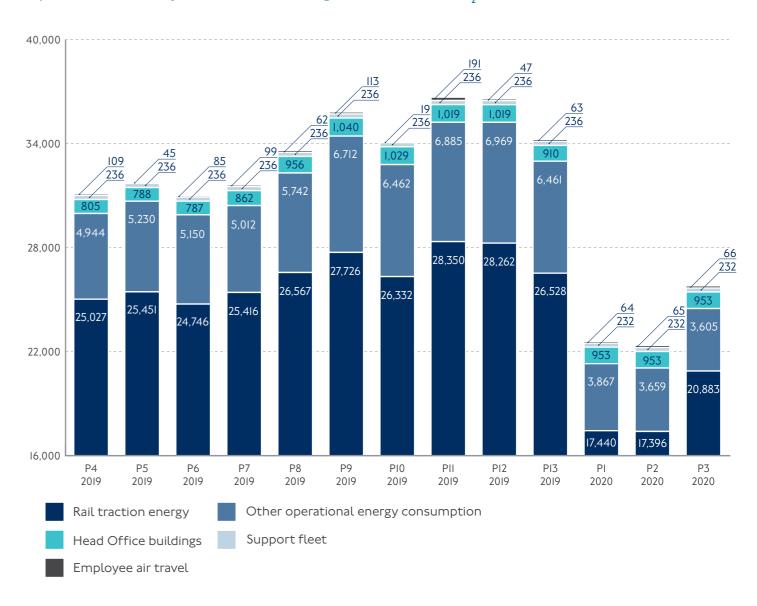
Our direct energy use fell significantly in QI as Tube and rail services were reduced during the coronavirus lockdown. LU's traction energy consumption was approximately 33 per cent lower in periods I and 2 than the equivalent periods in 2019/20. Energy consumption increased in period 3 as service levels resumed.

Figure 13:
Breakdown of TfL electricity consumption (GWh)



Our operational CO, emissions (excluding buses) were approximately 25 per cent lower in QI than in the equivalent quarter of 2019/20. This was caused by the reduction in overall energy use and a decrease in the emissions intensity of grid electricity.

Figure 14:
Operational TfL CO, emissions (excluding buses) (tonnes CO,e)



Waste and recycling

Due to low customer numbers and the pausing of construction works in response to coronavirus restrictions, the volume of passenger and construction waste fell significantly in the first quarter of 2020/2I. Across our major projects, the waste produced in QI was less than five per cent of the waste produced in the previous quarter. All QI construction waste was recycled or sent for energy recovery.



waste produced in QI was less than

5%

of waste produced in previous quarter





Renewable energy procurement

We are working towards meeting the Mayor's ambition of all passenger rail services operated by TfL being zero carbon by 2030. To achieve this, we will need to ensure all of our grid-supplied electricity comes from renewable sources.

In June, we completed two discrete pieces of work with the Crown Commercial Service and independent energy consultant, Baringa, to better understand our commercial strategy and route to market for renewable energy. We then began early market engagement with renewable energy suppliers, to test our emerging approach and to better inform our shorter-term objectives. This work – due to complete in early August and feeding into a procurement strategy finalising in September – will set out how we intend to meet the zero-carbon railway ambition.



Future plans

We plan to launch in Q2 a market-sounding questionnaire for our renewable energy procurement. This will help us engage with renewable energy providers and will inform and develop our procurement strategy.

We will continue the retrofit of the bus fleet to comply with the higher Ultra Low Emission Zone emission standards.



Our engagement

Engagement with external regulators is fundamental to running a safe and sustainable service. Our SHE teams regularly work with regulators through joint workshops. They also attend staff safety forums with the ORR, where opportunities for sharing outcomes are gained. We will continue to engage with our regulators to improve safety for our customers and staff.

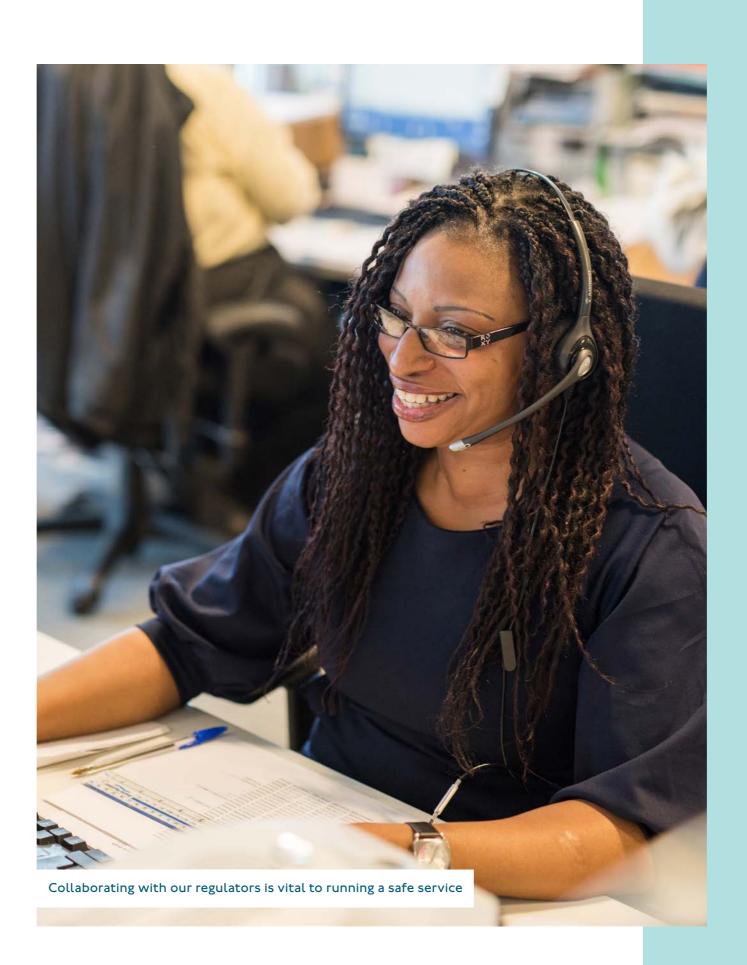
Pandemic

During QI, we worked very closely with our health and safety regulators, particularly the ORR and the London Fire Brigade (LFB), to provide assurance that we were taking appropriate action to keep our customers and workforce safe and healthy. This was particularly important in an environment that was constantly adapting to the challenges presented by the pandemic.

We increased the frequency of our senior leadership liaison meetings with the ORR, with whom we enjoy a very active, transparent and collaborative relationship. We held virtual meetings every week to discuss our approach and our response to new Government/PHE guidance or medical advice, to share our risk assessments and to keep the regulator updated with all issues related to the pandemic.

Investigations

As well as working with us on our response to the pandemic, the ORR and the RAIB are currently investigating two incidents: the Chalfont & Latimer signal passed at danger, and the Waterloo fatality. They have decided not to investigate the wall collapse at East Ham – the LFB attended and provided information on this. We are working with the regulators to share information related to these incidents.



Docklands Light Railway inquest and Prevention of Future Deaths report

Following a fatal incident at the DLR Limehouse station in January 2020, in which a passenger accidentally fell from the platform and was struck by a train, an inquest was held in May 2020. The coroner noted the driverless nature of the DLR and the seeming reliance on passengers noticing a hazard on the track in order to alert an on-train staff member to take action.

The coroner issued a Prevention of Future Deaths report to both TfL and the operator of the DLR, KeolisAmey Docklands (KAD). TfL and KAD issued a joint response to the Prevention of Future Deaths report, summarising the ways in which action can be taken to stop a train in an emergency and describing the actions to be taken as a result of the incident. This includes making the platform alarm signage more visible, and continuing to explore technology solutions for detecting objects on the track.



About Transport for London (TfL)

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

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

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

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

We are moving ahead with many of London's most significant infrastructure projects, using transport to unlock growth. We are working with partners on major projects like Crossrail 2 and the Bakerloo Line Extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when open, will add 10 per cent to central 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.

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