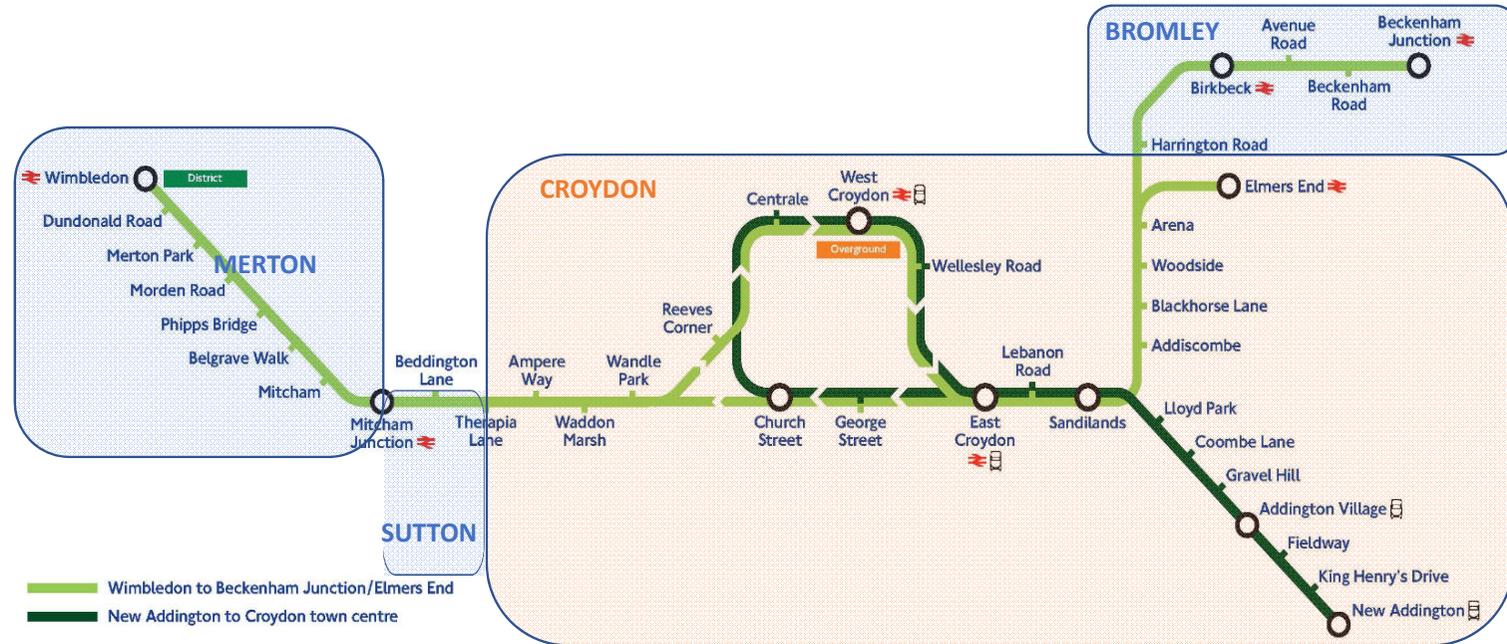


Tram Operations Ltd Presentation to Public Transport Liaison Panel

Jackie Townsend
Managing Director
27 February 2019

Croydon Tram Network

- 28km network;
- 2.4 million km p.a.
- 35 trams , 39 Tram stops, serves 7 National Rail stations and more than 50 bus routes
- Four lines / routes
- 80,000 customers daily
- 29.1m customer journeys per annum down 1.2% year on year, whilst Docklands are down 2.2%
 - Account for 19.6% of all London journeys , our share has grown 0.2% year on year
 - 3% of total UK journeys are on light rail



Tram – Mode of Operation

- Driving is **by line of sight**
- Both infrastructure and rolling stock safety are assessed using the same criteria for heavy rail,
 - but tailored for light weight, lower speed operation
- Legislation relating to highways which affects light rail and tramways as is operates on roads
 - Highways Act 1980
 - The Traffic Signs Regulations and General Directions 2016
- Trams are regulated by Office of Rail and Road (ORR)

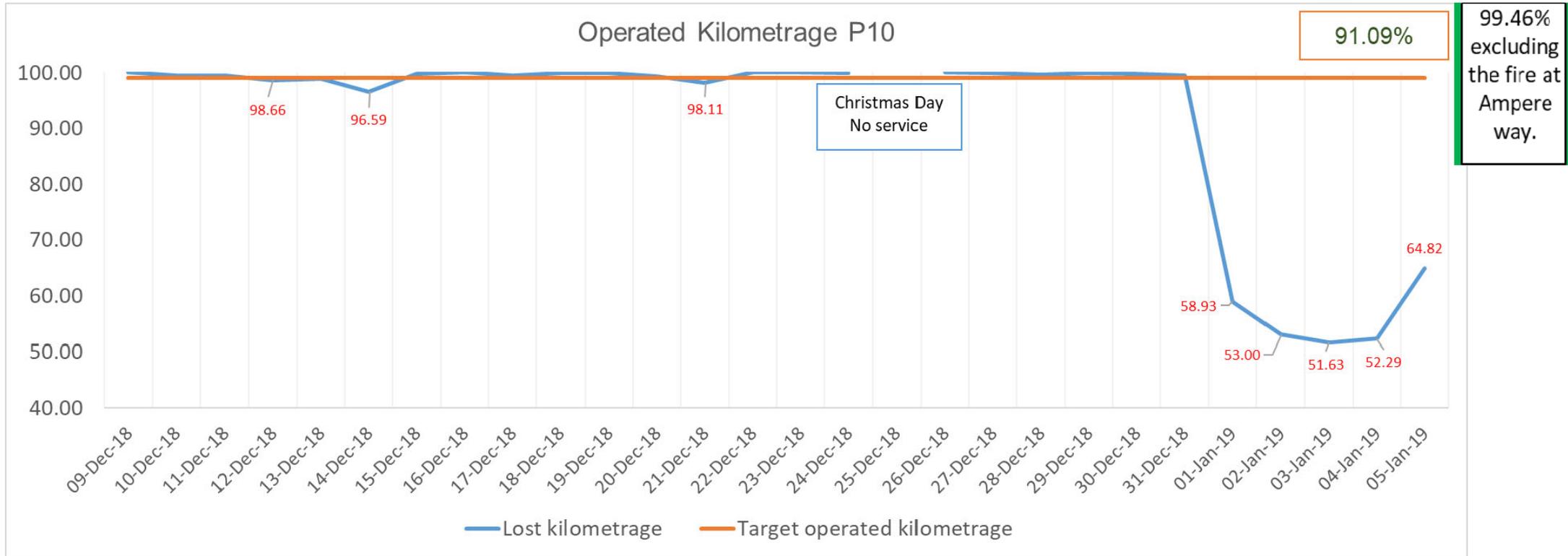


Access and enhanced mobility

- Low floors on trams
- No steps at tram stops
- Slopes from tram stops to pavements allowing smooth transition
- Dedicated space on tram for wheelchairs and buggies
- No special assistance is required

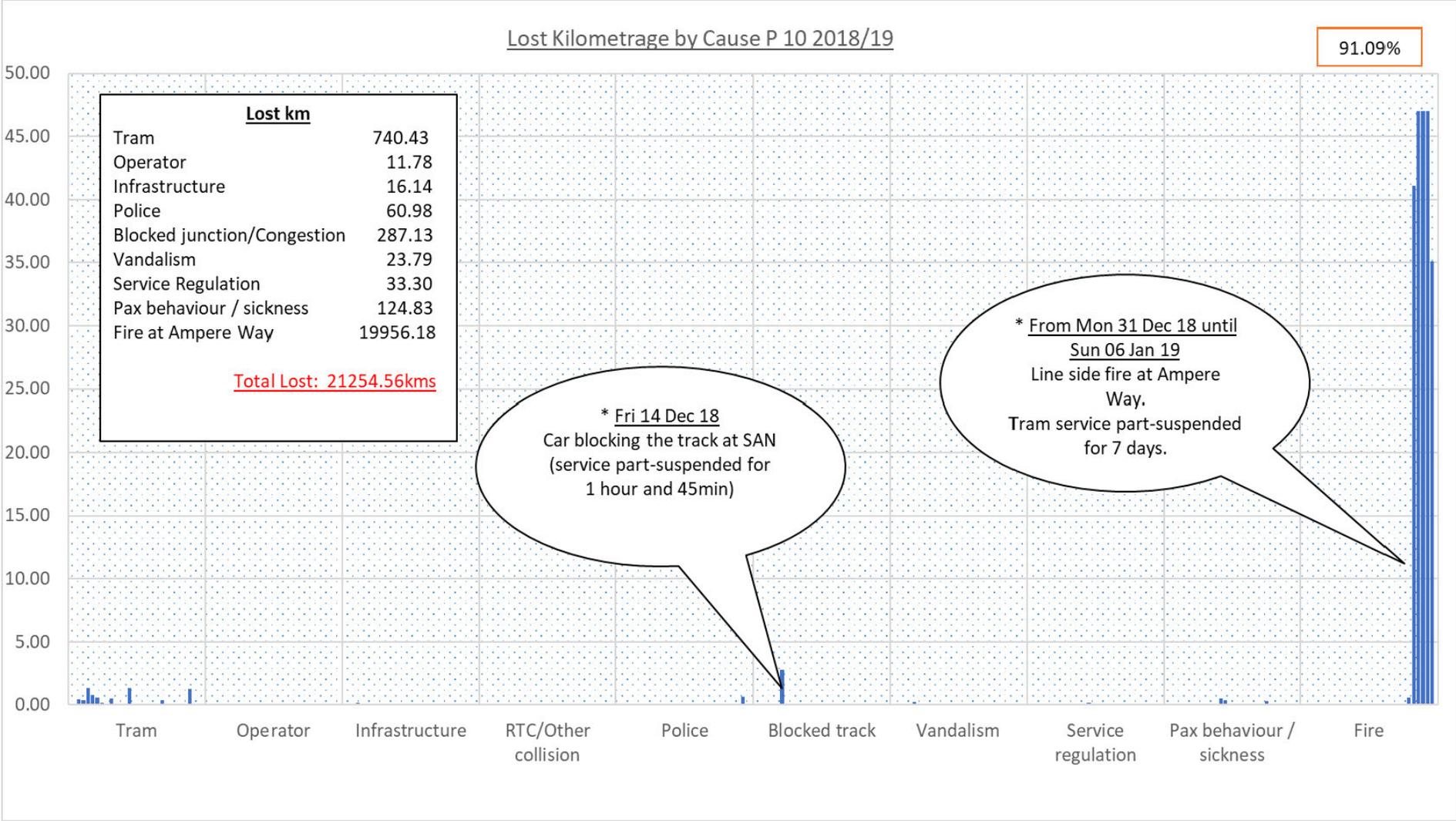
Barriers to overcome – Provision for Cyclists

Service Performance



12.12.18 - Failed trams.
14.12.18 - Failed trams, car on track at SAN.
21.12.18 - Failed trams, passenger sickness, traffic at West Croydon area, service regulation.
01.01.19 - Fire at Ampere Way.
02.01.19 - Fire at Ampere Way.
03.01.19 - Fire at Ampere Way, driver incident, failed tram.
04.01.19 - Fire at Ampere Way, failed tram, Police incident at Woodside.
05.01.19 - Fire at Ampere Way, failed tram, passenger sickness.

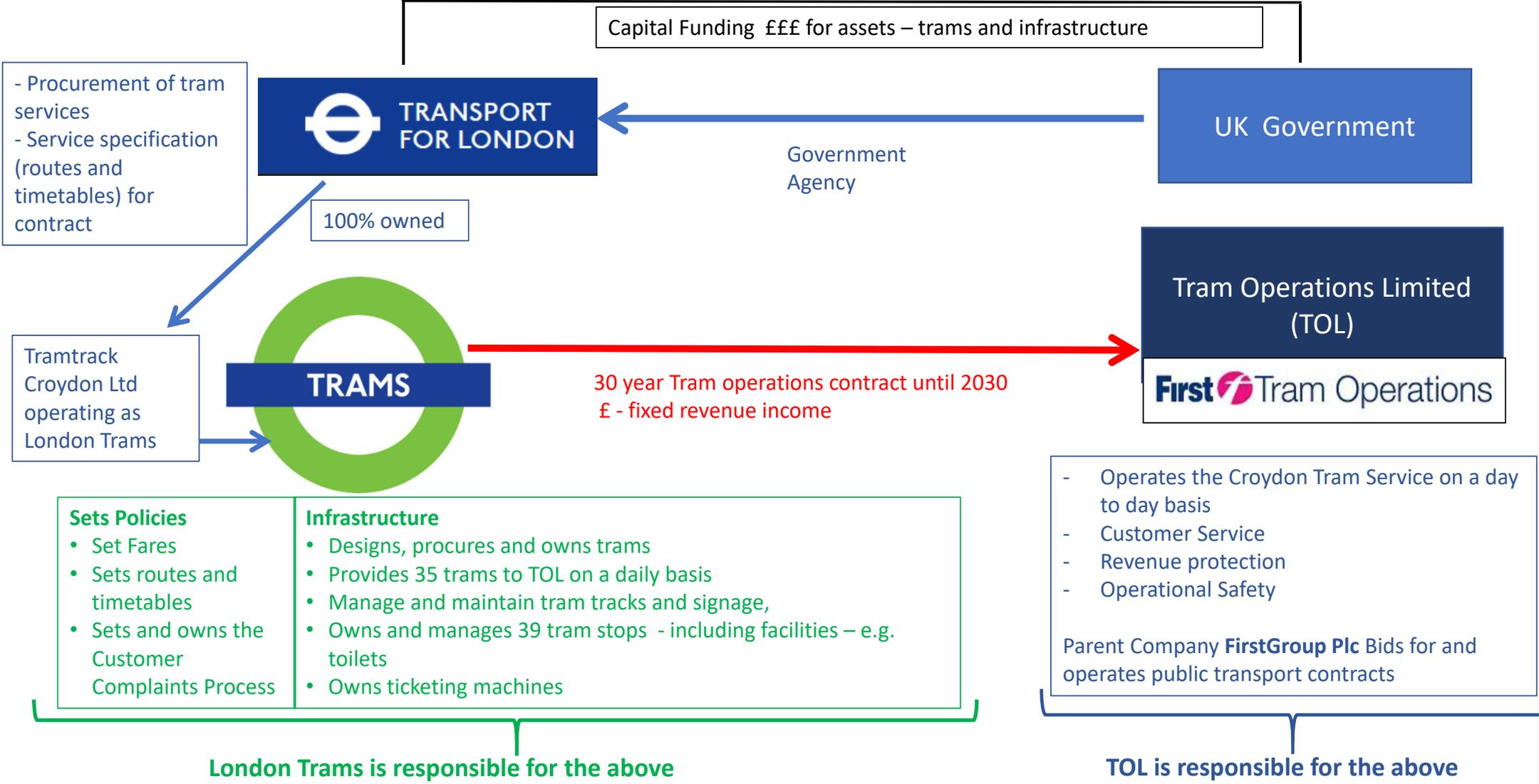
Understanding and dealing with any under performance



Croydon Tram Service

Roles and Responsibilities

Funding £££
 ← Ownership
 → Contract £



Where are we now?

Executive Team



Jackie Townsend
Managing Director



Ben Groome
Operations
Director



Andrew Wallace
Head of Safety



Ian Sutcliffe
Head of Customer
Service and Revenue



Jane Harmer
HR Business
Partner



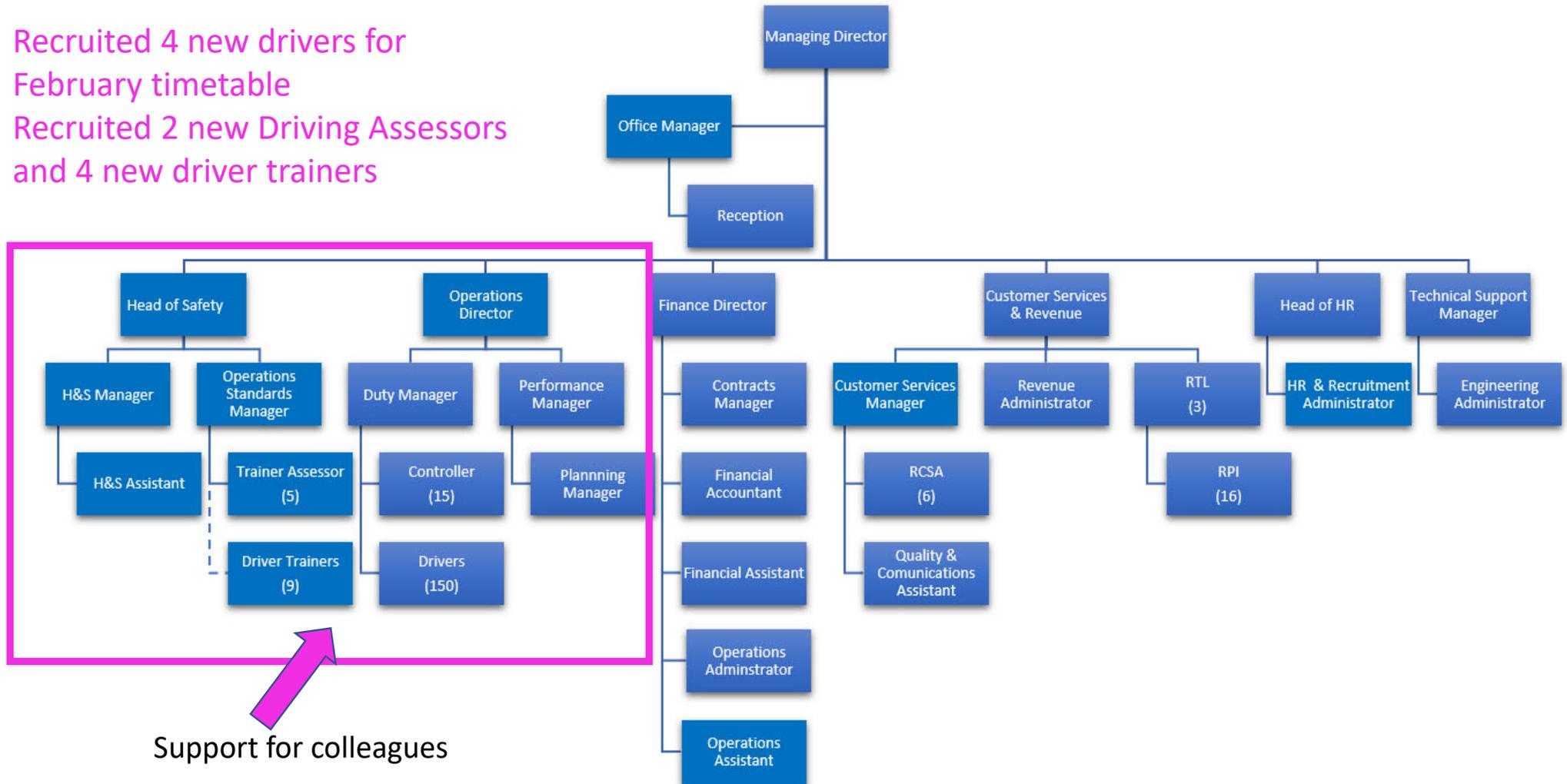
Adrian Wlodarski
Finance Director



- A new Organisational Structure took effect in December 2017
- New positions were created in both the Safety and the Customer Service and Revenue Departments
- Additional drivers and training assessors recruited
- Following the serious incident on 9th November 2016, it has been an extremely difficult time for staff and the Company continues to go through change
- After Sandilands we have been working with London Trams on several joint safety related projects
- We have reviewed and agreed with London Trams how we will manage the process of change between the two companies.
- We provide an excellent daily tram service with 99% of all services being delivered
- At 90% our customer satisfaction score is the highest within London Transport
- We are very proud to have a culturally diverse workforce, with 37.71% members of staff from BAME (Black, Asian, and Minority Ethnic), backgrounds. An increase from last year – 37.27%

TOL Organisation

- Recruited 4 new drivers for February timetable
- Recruited 2 new Driving Assessors and 4 new driver trainers



Other Changes – Staff Rosters

- In May 2017, we revised our rule for the number of consecutive days someone in a safety critical role could work.
 - Reduced from working 12 consecutive days to 8.
 - Rule applied to our 4 types of staff rosters.
 - Outcome is that no-one is rostered to work more than 7 consecutive days on any of our rosters.
- This new rule meant the safety critical roles would still be rostered to work 7 days, with the ability to work an additional day. This can be done in two ways:
 - Staff member can volunteer to work their day off, known as a working rest day. We maintain a list of volunteers; or
 - Request to change their rostered rest day
- The majority of rest day changes are at the request of staff, we rarely ask them to change a rest day unless there is an operational need to do so.
 - On these occasions we look at the volunteer list and apply the 8- day rule to identify the most suitable staff member.
- Our rule states you must have one rest day in each pay week, which begins on a Sunday. Staff could change a rest day whereby it is swapped to another day. The outcome of working a rest day means they work an ‘additional’ day.
- We have procedures in place to monitor that working an additional day or changing their rest day does not break our 8 consecutive day rule.

In April 2019 we are introducing 5 day rosters
(Based on the fatigue information we have received from the Guardian device)

Help and Support drivers rather than discipline

IR Issues

- Colleagues complained of runny eyes, dry eyes, skin issues and headaches.
- Some took to wearing ski goggles / or sunglasses
- We offered them eye tests
- Help through GPs and Occupational Health was also offered

Tram Operations Limited
Standard Operating Procedure
SM0068
Guardian Device

Author	Willie Michaels	Safety Manager
Owner	Andy Wallace	Head of Safety
Sponsor	Jackie Townsend	Managing Director

This document applies to:

All TOL employees responsible for Operating the movement of trams.

Fatigue Management Procedure

Immediate actions to be taken by the driver to prevent re-occurrence

- Driver make a self-assessment to determine whether or not they have adequately managed the effects of fatigue
- Any intervention requirements are identified by Control and the driver – such a relieving the driver from duty
- Notify the on-call manager of any arrangements

Intervention Management

- Working with drivers on a support plan -
- Panel (check wording in procedure)
- After an identified number of alerts in a single period an intervention (fatigue) plan will be implemented.
- The plan is discussed and agreed with driver and their line Manager
- Escalation path to the Intervention Appeal Panel¹¹

Fatigue Risk Management

- TOL has updated its existing Management of Fatigue Policy
- TOL has engaged Clockwork Research Ltd to support improvement of its Fatigue Risk Management System. Clockwork are recognised experts in this field with a strong reputation in the Aviation, Heavy Mining and Petrochemical Industries.

Three phases of work were identified:

PHASE 1

Assessment of current arrangements against good practice, enhanced bio-mathematical modelling of staff rosters using the SAFTE-FAST tool and delivery of a driver fatigue risk workshop programme. This phase has been completed.

PHASE 2

Enhancement of internal fatigue risk management capability – establishing a Fatigue Safety Action Group, improving fatigue risk management arrangements, reviewing staff rosters and developing enhanced fatigue training for drivers, key safety personnel and their families.

PHASE 3

Review of Phases 1 and 2, refining arrangements to suit changes in TOL's fatigue risk profile.

Enhanced Training Continues

Training

Fatigue Management

- A bespoke fatigue training programme is being developed with Clockwork and will be rolled out in Spring 2019 for all Drivers, Duty Managers and Controllers
- A family open day is being planned for Spring 2019

Customer Training

- A pilot Customer service training for drivers/control staff started on 29th January, being delivered by driver trainers. Feedback from this course will help confirm content before roll out - All staff including Duty Managers and Controllers
- Training commenced in September 2018 for non-visible disability awareness. This training is to raise awareness and help recognise conditions of customers travelling with us who may need additional support. All staff including Duty Managers and Controllers will receive this training

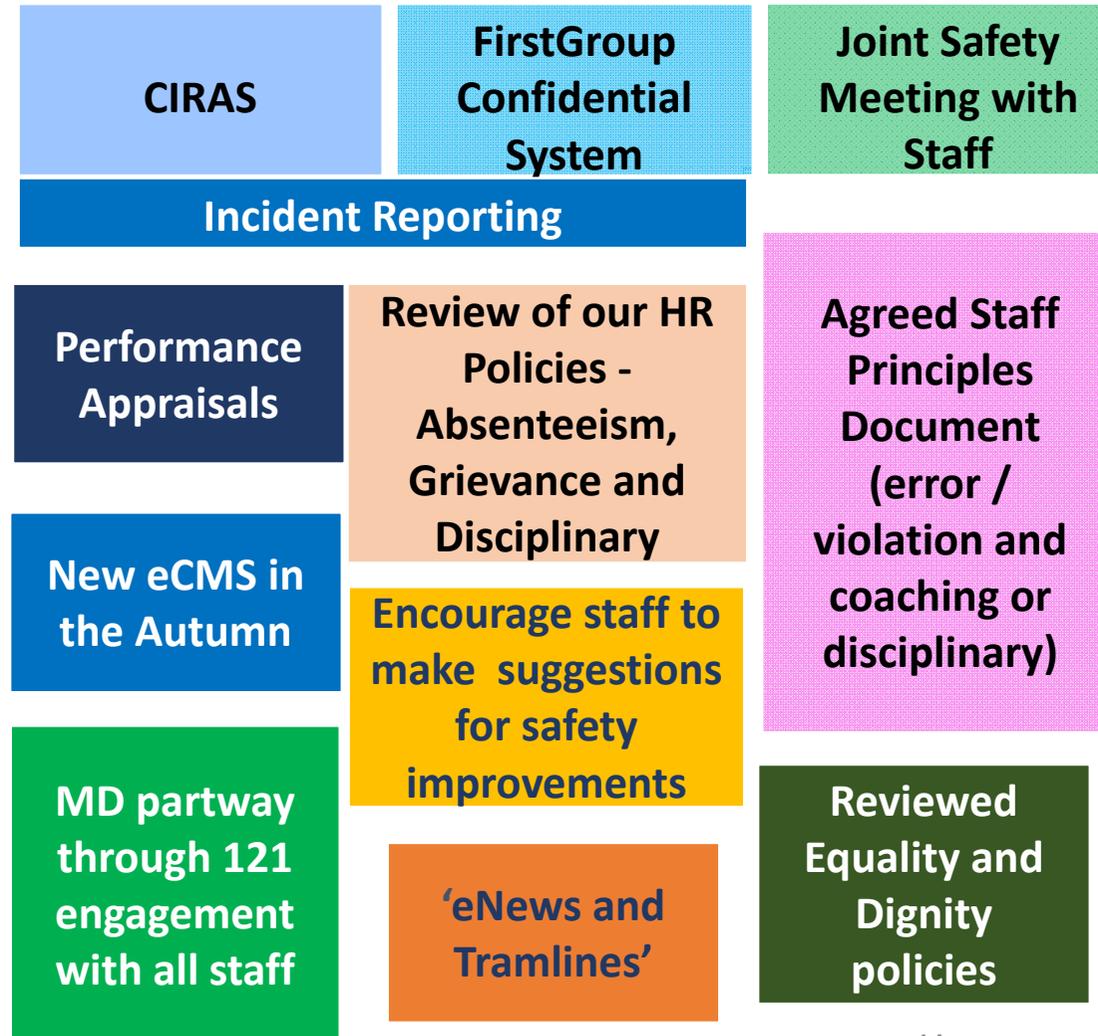
Competence Management

- Our competence management framework is based on recognised industry good practice
- Supports both planned monitoring and assessment of ongoing performance; and targeted employee development
- TOL has implemented an electronic Competence Management System (eCMS) to support this process.
- Our Assessors are qualified to TAQA Level 3 (or equivalent) standard. Their judgements are based on performance evidence and the underpinning knowledge requirements needed to support competent performance of the driving task.
- Where performance falls below the expected standard drivers are supported using focused Competence Development Plans (CDP).

Report Writing and Incident Investigation training is being carried out with key staff

Engagement

- Regular engagement with safety union reps at safety meetings
- Consultation on new timetable and associated schedules / rosters (positively received)
- Communications throughs safety briefings and specific safety notice board
 - Lessons learned are discussed at Health and Safety Meetings, shared with staff and considered by the Board.
- Encourage staff to report incidents or errors
 - Follow up feedback individually and to all staff
- Competency monitoring and support
- Recognition of positive / good behaviour



Other Communication with Staff



YOUR Voice

Staff Engagement
The 2018 Your Voice Survey received a 74% response

Tramlines
THE NEWSLETTER FOR FIRST PEOPLE IN TRAM OPERATIONS
ISSUE 48 SPRING 2018

Safety Performance Indicators Three Year Comparison

Safety Performance Indicators & Target for 2018/19

Incident Type	Total 2016	Total 2017	Total 2018	2018/19 Target
Passenger injuries (Major)	23	16	11	10
Passenger injuries (Minor)	16	3	3	2
Staff Major injuries	1	0	0	0
Staff Minor injuries	1	0	0	0
Staff Lost Time (including Personal, Sick and Training)	4	0	0	0
All lost time incidents (including Personal, Sick and Training)	11	0	0	0
Lost Time with injury (including Personal, Sick and Training)	11	0	0	0
Driver 1 Controller error status (single and non-chargeable)	13	18	15	14
Strong side door operation (chargeable)	27	13	15	14
Strong side door operation (non-chargeable)	1	2	2	2
Conductors (Lost customer calls)	19	22	8	8
Conductors (Customer calls)	12	13	2	2
Conductors (Incidents)	5	1	1	1
Conductors (Injuries)	0	0	0	0

First Tram Operations

2018-2020 Business Plan Summary for Staff

July 2018

Perkbox Launch

February saw the launch of a new staff benefit called Perkbox. This online system is accessed via an app on your mobile or on your desktop and offers discounts on hundreds of products from food & drink to entertainment and technology. If you've not signed up yet, all you need to do is provide your personal email address to Clare Marshall and she will set you up so you can register on Perkbox and start reaping your daily rewards. If you would also like to participate in our exclusive schemes such as Cycle To Work and the Clare Specials purchase scheme please contact Clare. Special thanks to Alan Bishop for helping to promote the scheme.

New Uniform For IOL

TIL has introduced a new uniform for IOL to bring it in line with the TIL design. The majority of uniforms have now been issued, with a delay in some due to a 2 month lead time in the ordering process.



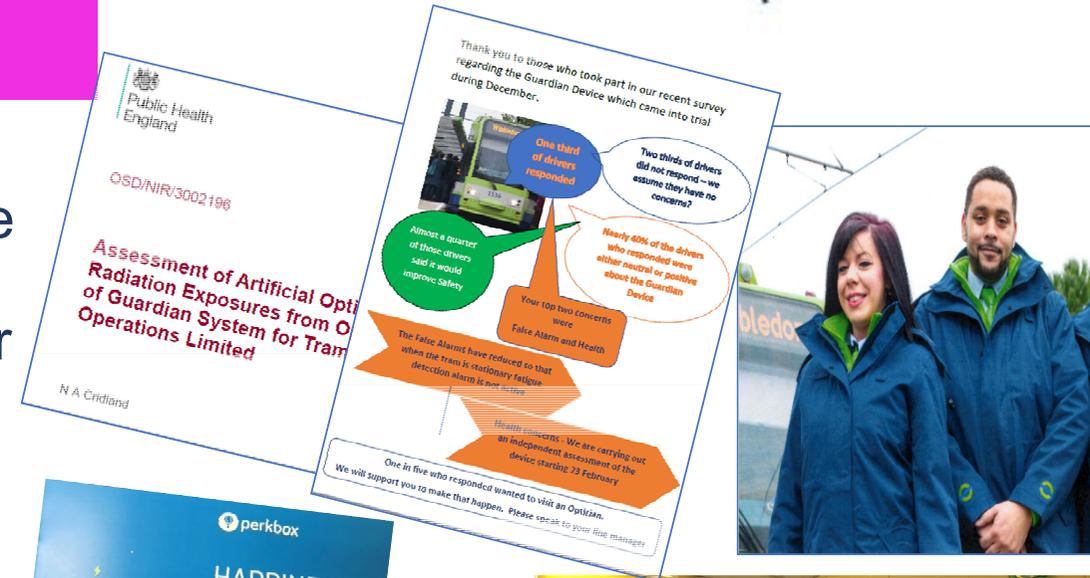
PERFORMANCE REVIEW

The Loop

E-News Communication

Outcomes from Positive Engagement with Colleagues

- Colleagues and Trade Union Representatives were engaged to create awareness and understanding of the Guardian device before, during and after installation
- Refurbishment of mess rooms at depot and Tramlink shop
- TOL engaged with London Trams, TOCs and Local Authorities for improved toilet facilities at Elmers End, Wimbledon and Beckenham Junction
- Implemented a new Loyalty and Rewards Scheme – >90% take up
- Introduced a new uniform



Improving safety on the Croydon Tram Service

- Following a serious safety incident on 9th November 2016 London Trams (LT) and Tram Operations Limited (TOL) looked at new technology
- Ground-breaking technology in **The Guardian Device**
- Following engagement the device was installed during October 2017
- TOL is the First Tram company to implement the Guardian Device, working jointly with LT the owner of the trams
 - Feedback from the drivers has been positive
 - Great interest from various parties within the industry



Provides active protection to the safety of the tram drivers and customers

What is the Guardian Device?

Guardian is a **real-time fatigue and distraction detection solution** that uses advanced sensors and image processing technology to track the micro-movements of a driver's eyes, facial expressions and head to identify a fatigue or distraction event.

When an event is detected, the driver receives immediate in-cab audio and seat vibration alerts that help prevent an incident. When it detects fatigue or distraction, it records the three seconds prior to the alarm to enable the incident to be investigated.

Fatigue

includes restlessness, yawning, tunnel vision, drooping eyelids and microsleeps

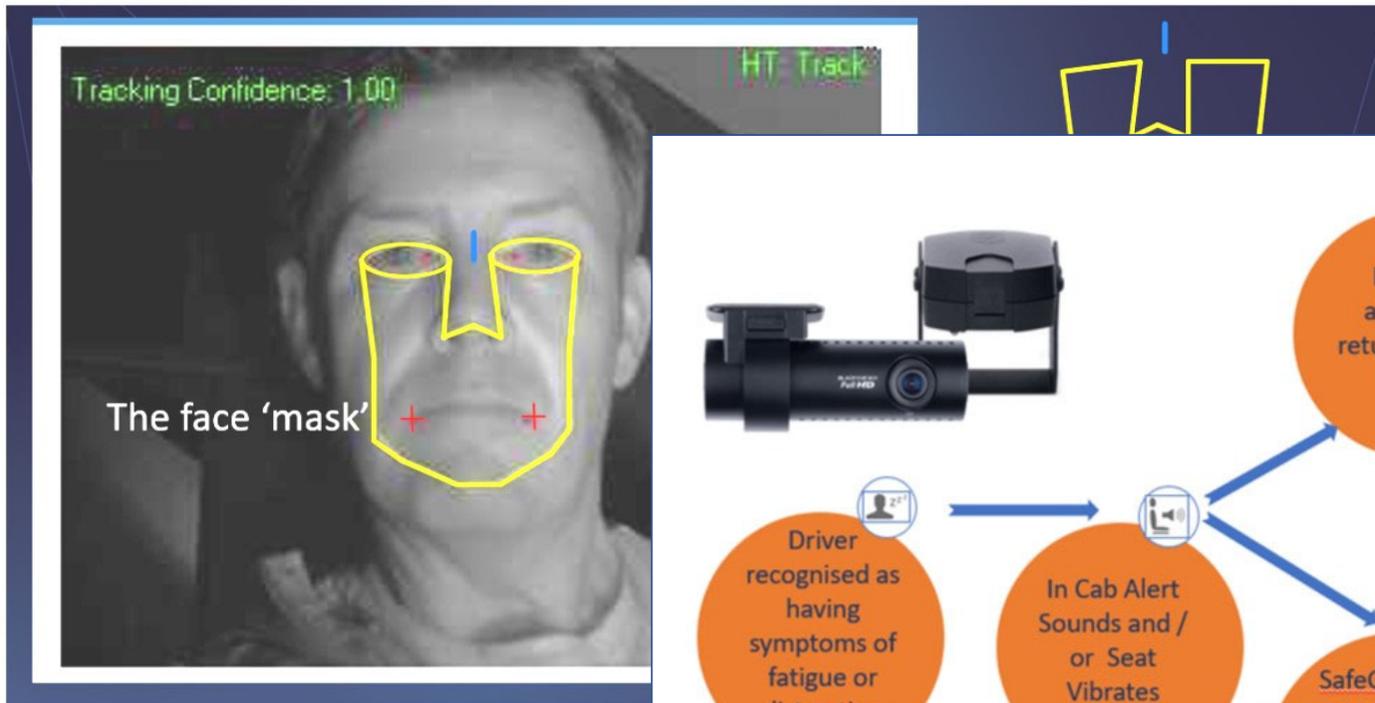
greater than 2 seconds when over 5 kmph.

Distraction

includes driver's head not pointing in a forward-facing direction due to a distraction on the dashboard, or other vehicles.

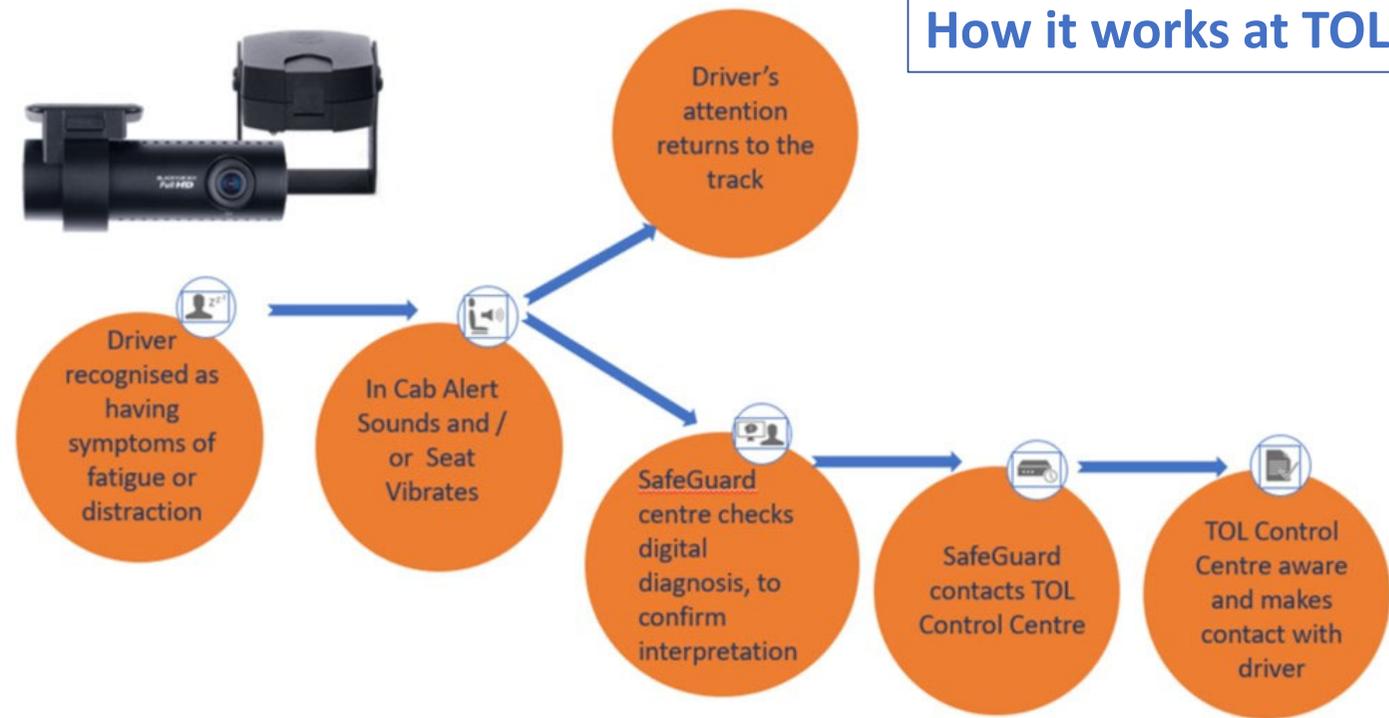
more than 4 seconds at speeds over 5 kmph.

Guardian System



KEY POINTS OF THE FACE PICKED OUT TO A

How it works at TOL



Access to real-time data and daily reports

- Providing TOL with the number, frequency and type of alerts for each driver
- This information is used to help manage fatigue as part of our Just Culture programme
 - Any incidents of fatigue or distraction are captured and held in our central database.
 - Detailed level of information enables us, at an early stage, to support drivers to manage their domestic lives.
 - Any instances of fatigue that may necessitate a Personal Needs Break (PNB) will be allowed for in our roster scheduling.
- Guardian as the catalyst for a whole new way of thinking about safety and as the beginning of further improvements.



Benefits of the Guardian Device



It has brought fatigue management to a new level of awareness

We are looking at how we can encourage drivers and operatives on the tramway to consider their lifestyles with respect to fatigue.

TOL is embedded in the local Communities

*We are proud to serve the
local communities of Croydon
and South London*

Stakeholder Engagement with Local Authorities

Providing economic support for the community and local businesses

Employ staff who may live locally – drivers, customer facing and office staff

Working with local schools

Supporting local charities within the community

Regular form of transport operating in areas of the community - connecting the community

90% Customer Satisfaction Score – highest within London Transport Customer Ratings

Thank You
Any Questions?