Bus Strategy Review

Board Informal Session

24 May 2017

EVERY JOURNEY MATTERS

How the Bus Network is Managed: Three-Way Organisation

Transport for London

- Plan, contract and monitor
- Public and stakeholder engagement
- Provide infrastructure

Private sector contractors

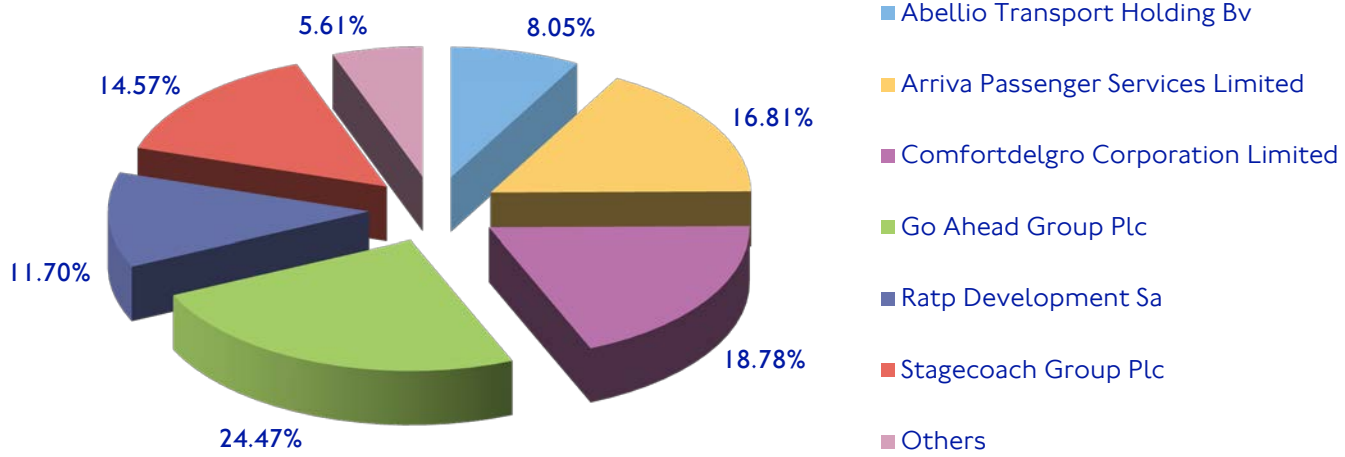
- Tender for, and run, bus routes
- Employ drivers, controllers, engineers
- Own buses and garages

The Mayor

- Sets strategy
- Sets fares

How The Bus Network is Managed: Tendering

- **Each route is individually tendered**, with batches of invitations to tender issued on rolling basis. Service specification reviewed in detail prior to tender.
- **Contracts last five years** – possible two-year extension based on performance. Gross Cost - **all revenue risk lies with TfL**.
- **Operators are paid on the basis of bus-km delivered**, with an annual bonus (or deduction) based on delivery against route-level reliability standards.
- Annual adjustment in contract price is based on a weighted mix of **Retail Price Index (RPI), a wages index and a diesel price index**



How the Bus Network is Managed: Costs

- The network cost £2158m gross in 2016/17, with income of £1524m .
- Total subsidy was therefore £633m.
- Operating deficit was £15m (adjusting for revenue foregone and capital expenditure).

Status key: ● within -2%, ● between -2% and -5%; ● -5% or worse
no status for variances below +/- 1%

Buses - Financial (£m)

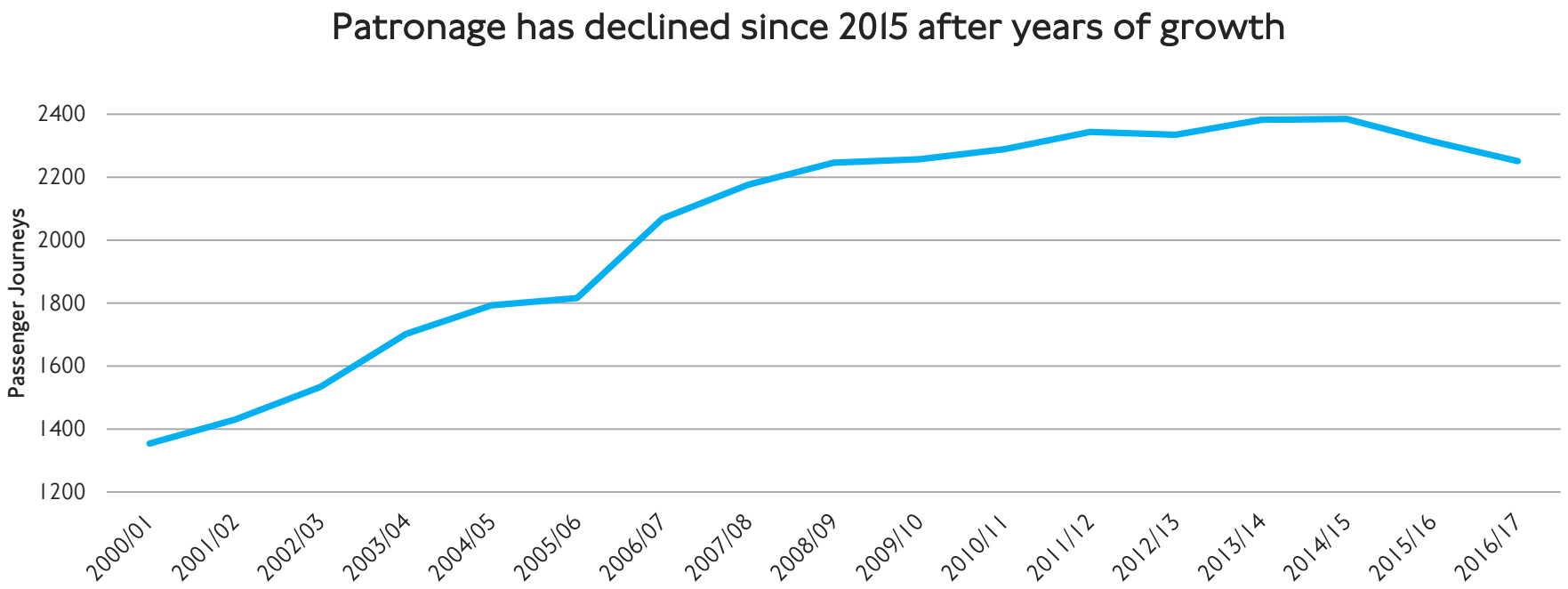
	Full Year			
	Actual	Budget	Budget variance	
Total income	1,524	1,615	(91)	●
Total Costs	(2,158)	(2,167)	9	●
Total Subsidy (A)	(633)	(551)	(82)	
Remove Non-operating costs				
Bus contracts - CAPEX element	(300)	(304)	4	●
Other Bus Capital Costs	(89)	(65)	(25)	●
Total Non-operating costs (B)	(389)	(369)	(20)	●
Include revenue foregone for concessionary fares (C)	229	230	(0)	
Net Operating Surplus /(deficit) = A-B+C	(15)	47	(62)	●

How the Bus Network is Managed: Fare Evasion

	2005	2006	2007	2008	2009	2010	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17 (Q1-3)
Value (£m)	£30.9m	£37.3m	£38.8m	£30.8m	£32.5m	£39.5m	£30.m	£23.2m	£19.9m	£16.6m	£17.2m	£18.m	£.m
Rate	2.40%	3.20%	3.50%	2.30%	1.90%	2.10%	1.80%	1.30%	1.10%	1.10%	1.10%	1.20%	1.30%

Fare evasion has declined from a peak in 2007 to a **low level of around 1.1%** in recent years, There has been a slight **recent up-turn** which can in part be accounted for by the roll-out of NRM buses, which have a higher rate than buses with front-door-only boarding.

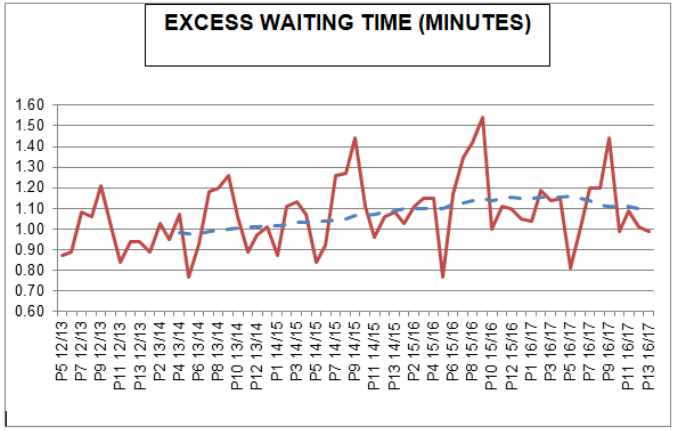
Background: Patronage Decline

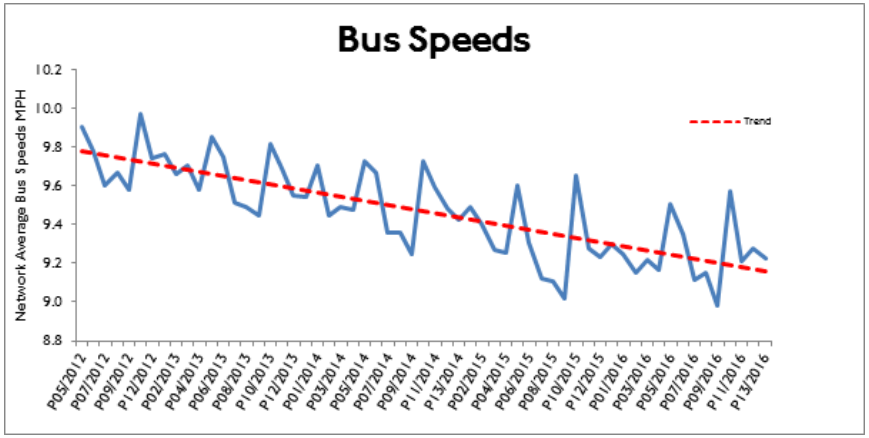


- Between 2000/01 and 2014/15 bus patronage increased by **77%**
- Since this point, bus patronage has declined by **5.6%**

Background: Journey Times

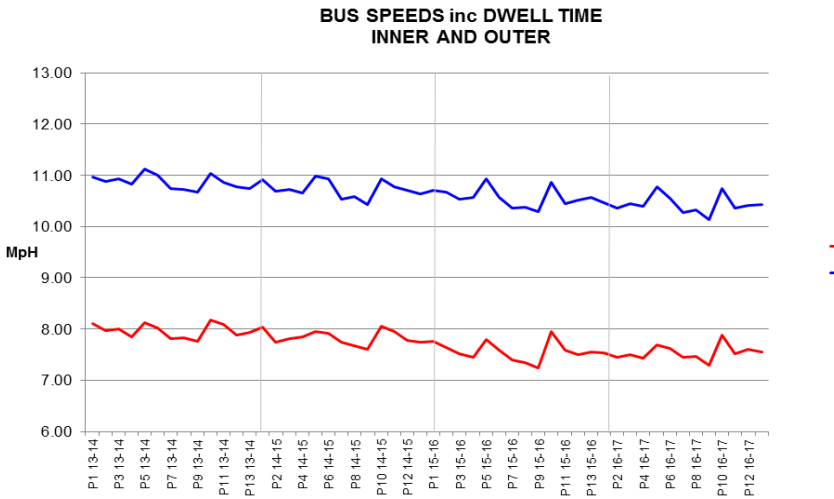
- **Waiting Time** is currently very good, with Excess Wait Time low (1.1 minutes).
- However, customer journeys overall have become **excessively slow and variable**
- **We need to restore customers' confidence in their travelling times** by:
  - Urgently tacking the decline in bus speeds
  - Ensuring that waiting time performance remains good
- We need to avoid further expensive accommodation of slower and more variable speeds into bus schedules.





Background: Bus Speeds

- The decline in patronage is linked with **worsening journey times** caused by increased congestion and road works



Change in speed	Number of routes	Change in patronage
>0%	62	-3%
-0% to -1%	44	-2%
-1% to -2%	80	-2%
-2% to -3%	95	-5%
-3% to -4%	81	-4%
-4% to -5%	61	-9%
-5% to -8%	65	-7%
<-8%	36	-16%

Bus speeds have fallen in Inner London by over 6% in the last three years

- Although there have been slight increases in the last quarter, **speeds of buses will decline** where their roadspace and capacity allocation at junctions is reduced.
- For example, **planned schemes** to improve the walking and cycling environment such as Cycle Superhighways 4, 9 & 11 and the Oxford Street enhancement are expected to have this effect.
- West End bus speeds could decline, by around **10%** over the next four years, affecting approximately **70 routes**

Background: Society Change

There are also other issues that are causing bus ridership to decline, e.g. **early signs of a reduction in trips per person due to continuing innovation in the retail sector**

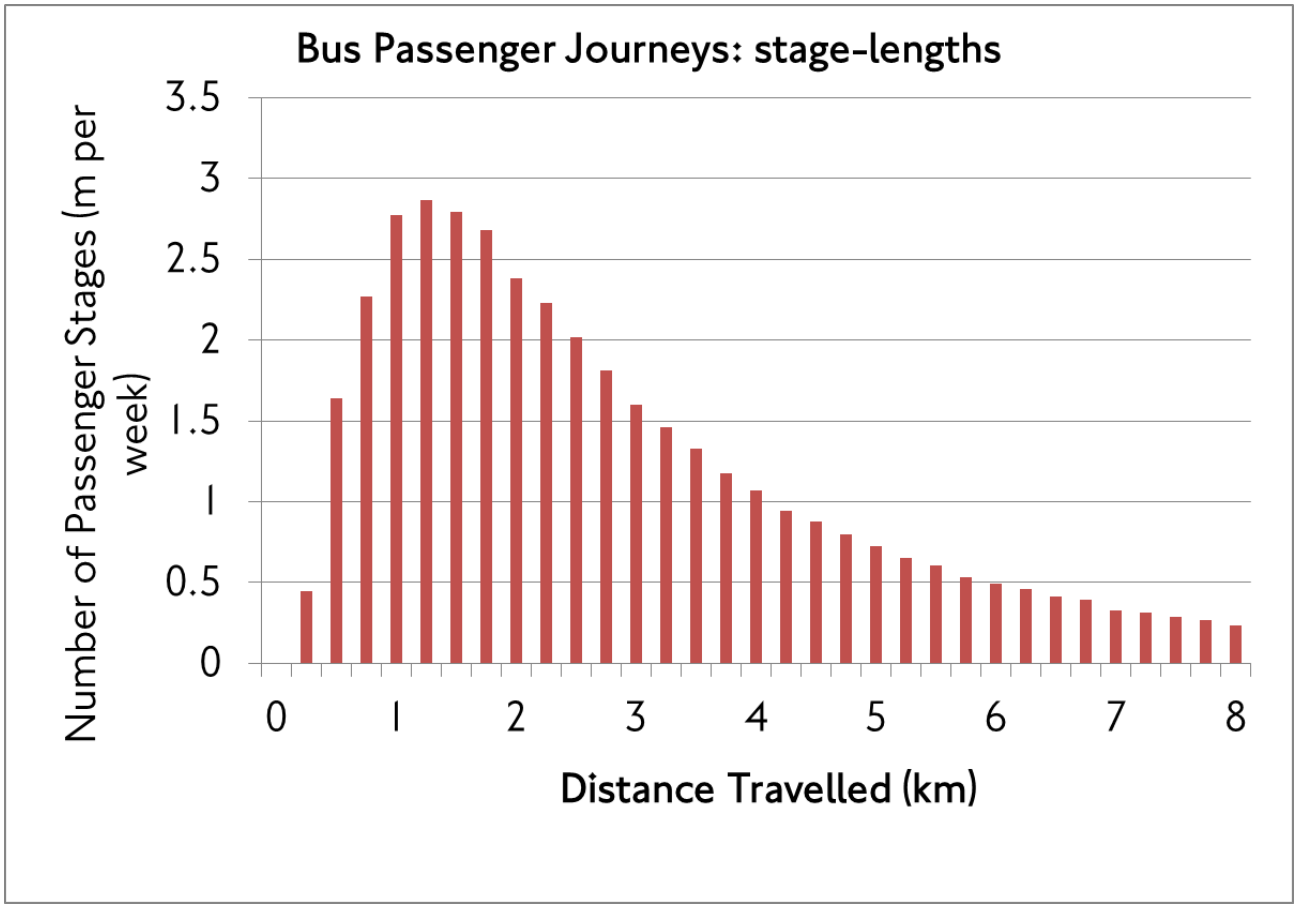
amazon Prime

Citymapper

asos
discover fashion online

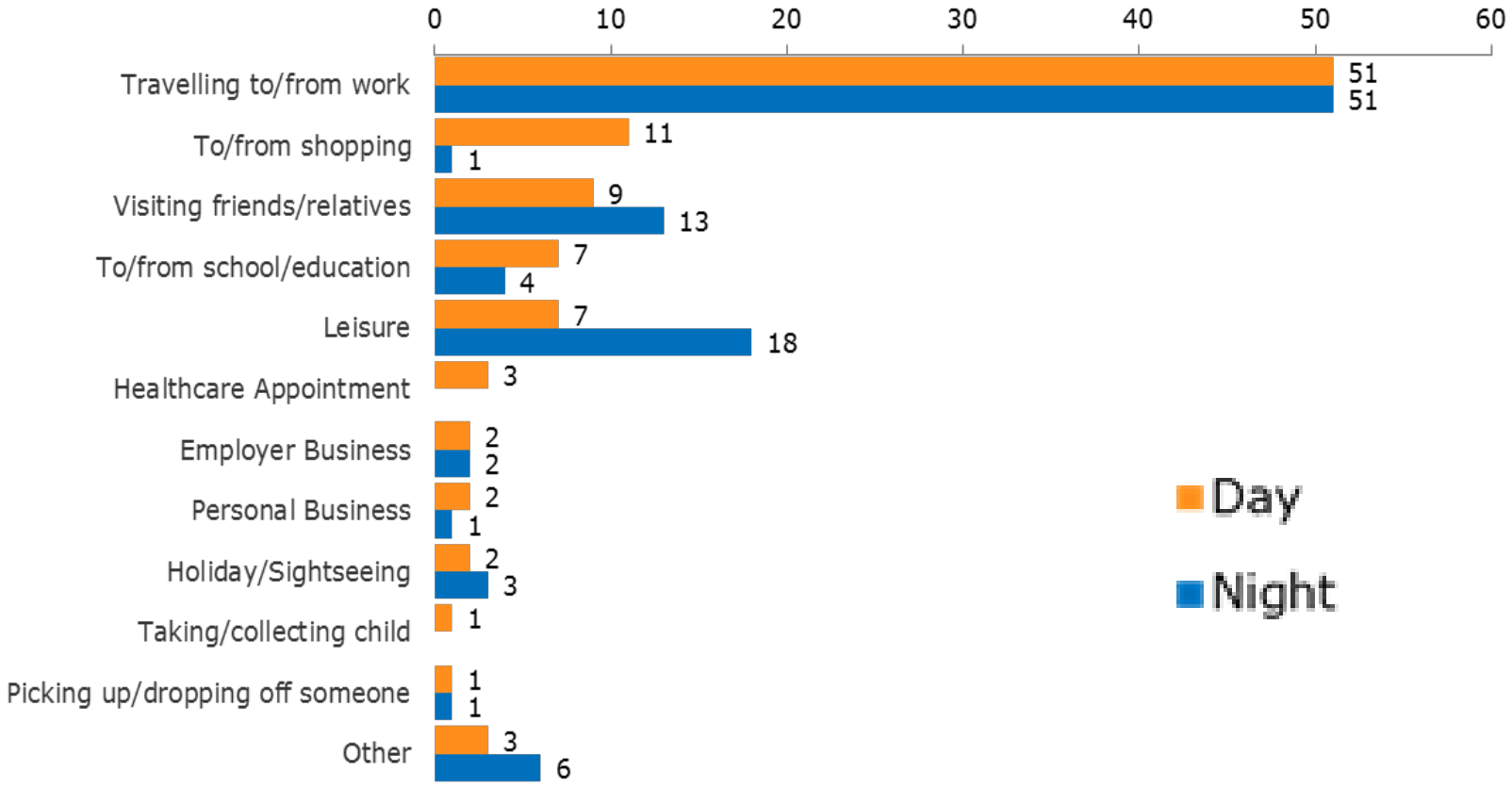
Background: Bus Trip Lengths

Bus trips are relatively short: some of the shorter stages can convert to walk or cycle more readily than for rail.



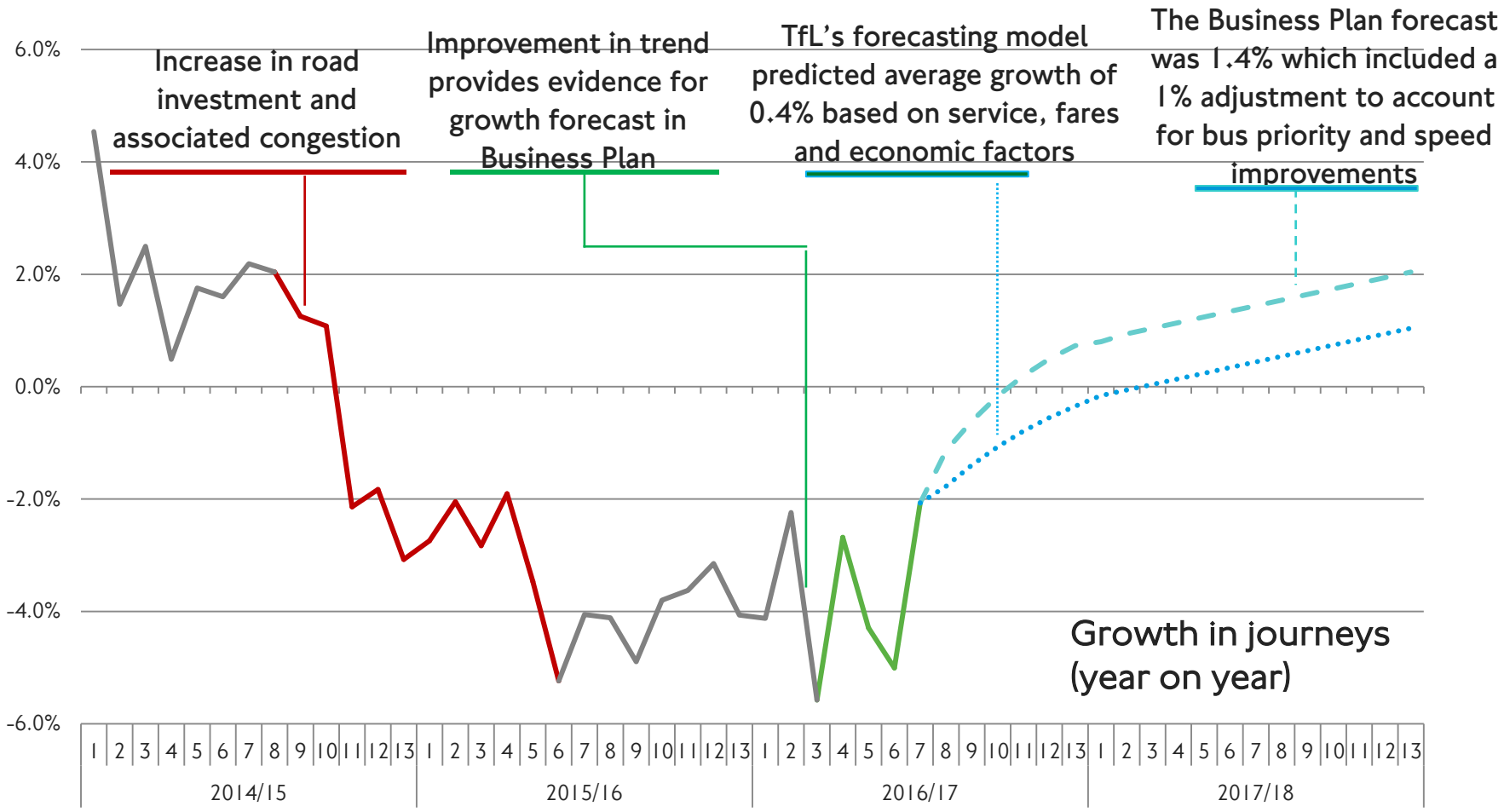
Background: Bus Journey Purpose

Buses have a broader spread of journey purpose than rail, which is more dominated by journey to/from work. Hence bus demand is being affected sooner by change in the way people shop, for example.

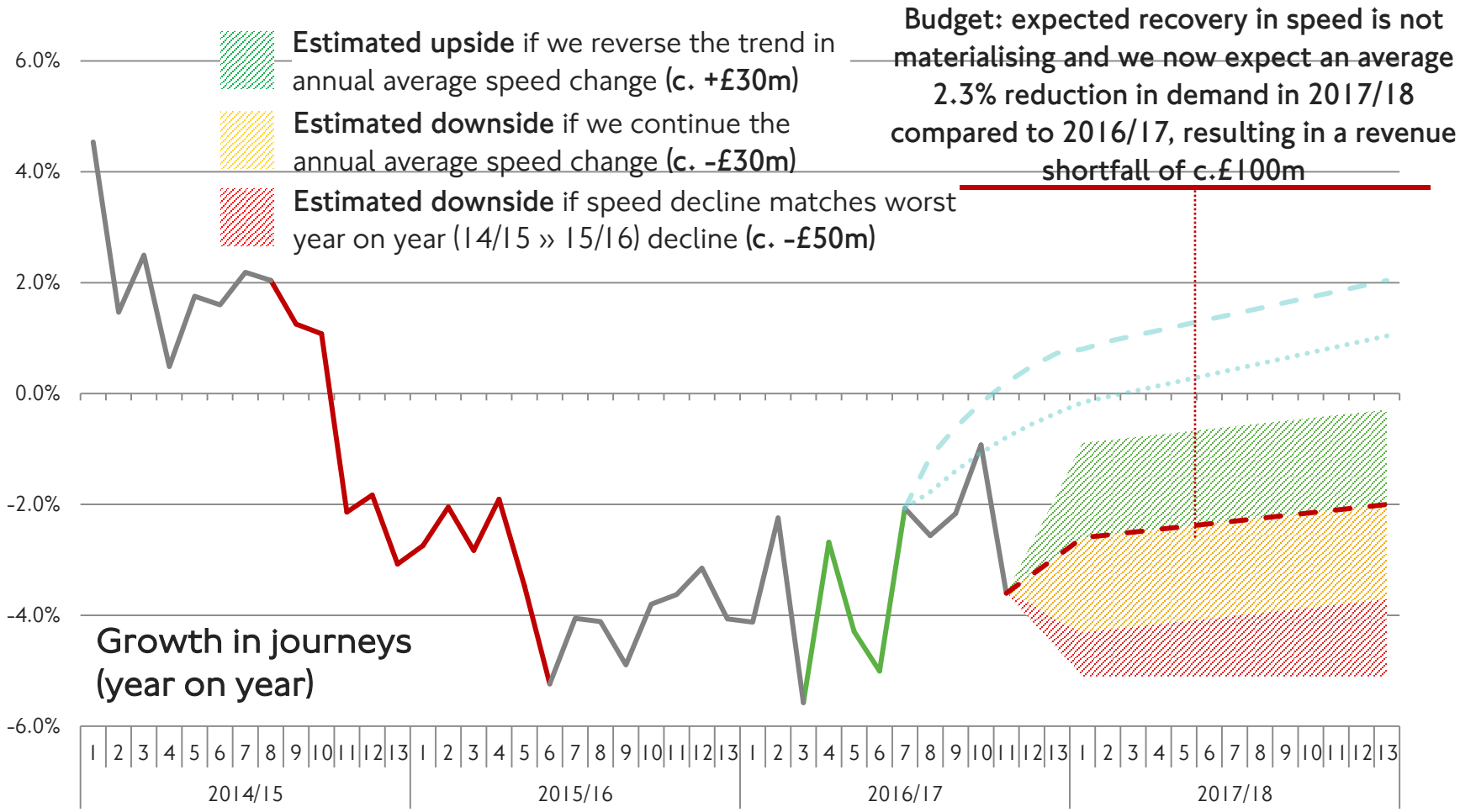


The Problem

Continued decline in bus patronage has caused a **c.£100m deficit in the Budget** compared to the Business Plan



Forecasting: Trends since the Business Plan requires an updated budget assumption



Forecasts have been smoothed to highlight trend

Strengths of the London Bus Network

- The most **comprehensive** its ever been, with the highest **volume** of service and the most **frequent** service
- **Leading-edge technology** and a **modern** fleet
- The **most connected and accessible** form of public transport, with **over 95%** of households within **400m** of a bus stop
- The **most used public transport mode** in London, with **2.25bn** passenger journeys in 2016/17. Vital for all sections of the community, particularly school children, the elderly and those with disabilities
- The fare is fixed at **£1.50** and around **one third** of customers don't pay for their journey at the point of use. The **Hopper** has made travelling by bus easier and cheaper.

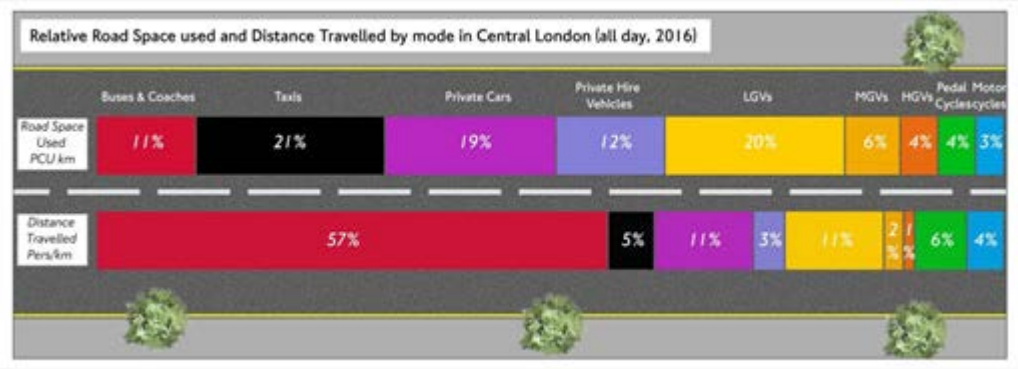
Challenges for the bus network

- **Reacting quickly** to meet the pace of London's change:
  - Challenge of serving London's **growing and ageing population**
  - Service patterns adapting to the **increased densification** of suburban areas
  - Bus priority also keeping pace, to keep bus mode share up in the growth areas, while also helping with the **policy challenge of developing holistic road schemes**
- Despite improvements to the environmental performance of our fleet, buses still **contribute to toxic emissions** on street
- There has been an increase in **safety incidents**
  - Despite advances in safety-related technology, there have been **6,093** injuries from incidents involving buses between January – December 2016
- We need to respond to an era of **zero revenue subsidy**
  - The bus network will cost **£670m** this year to operate, with each journey yielding **65p** of revenue for TfL on average, including Freedom Pass payments
- Are we moving fast enough to match **constantly increasing customer expectations?**
- Benefitting from apps such as **Citymapper** and new travel options such as **Uber**, customers are make **in-the-moment decisions** on how and whether to travel

We have therefore set out a new strategy for buses as part of the new Mayor's Transport Strategy

Mayor's Transport Strategy (MTS)

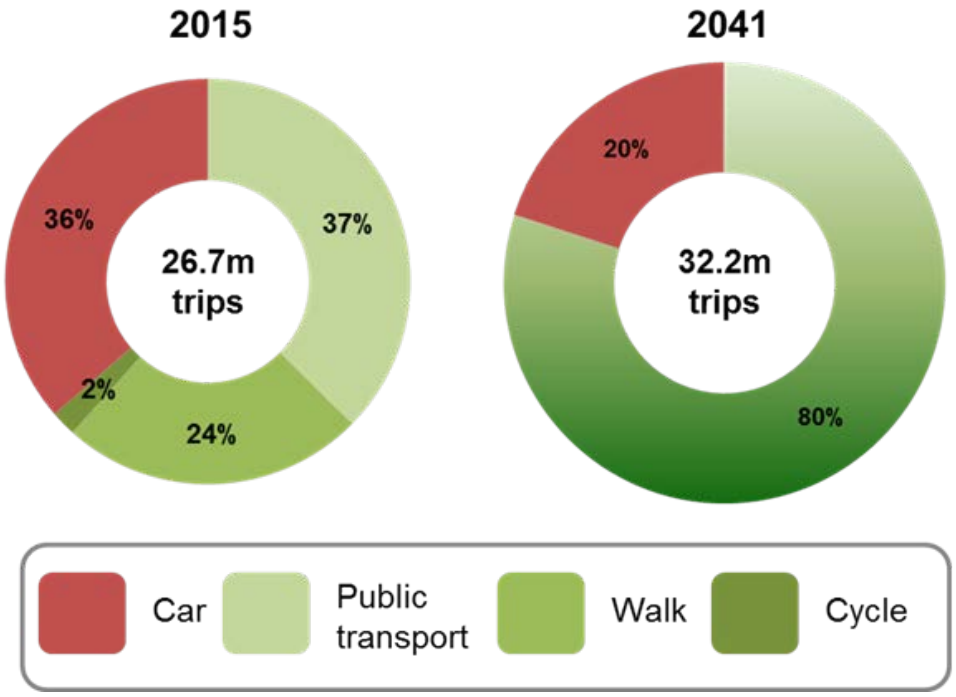
- The MTS focuses on **three priority areas** and the bus network plays a key part in each:
  - **Healthy Streets and Healthy People** – buses form key links to town centres and other destinations in most parts of the city and are one of the most efficient users of road space



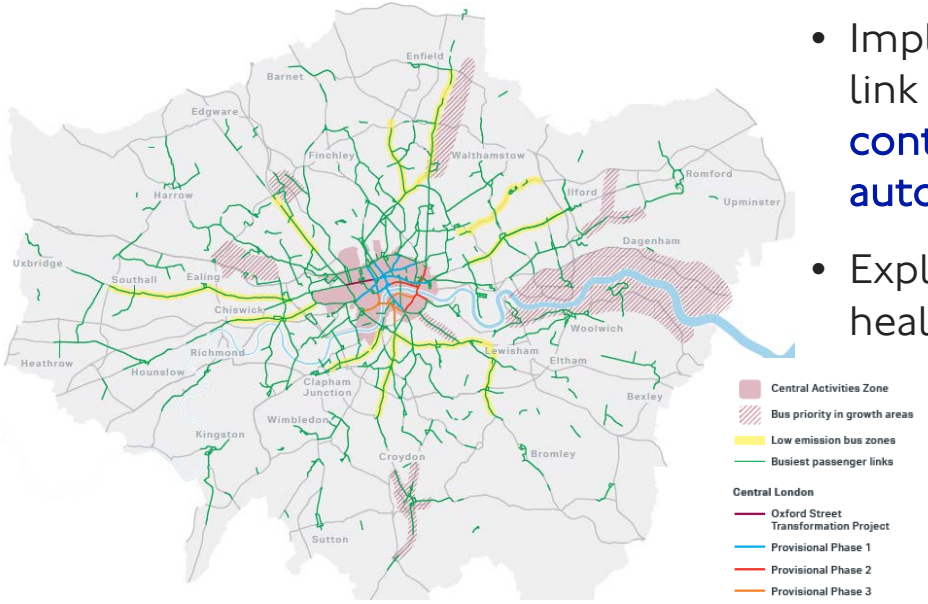
  - **A Good Public Transport Experience** – including providing better accessibility for all users
  - **New homes and jobs** – buses can enable the creation of high density, mixed use places

The Mayor's Aim for Mode Share

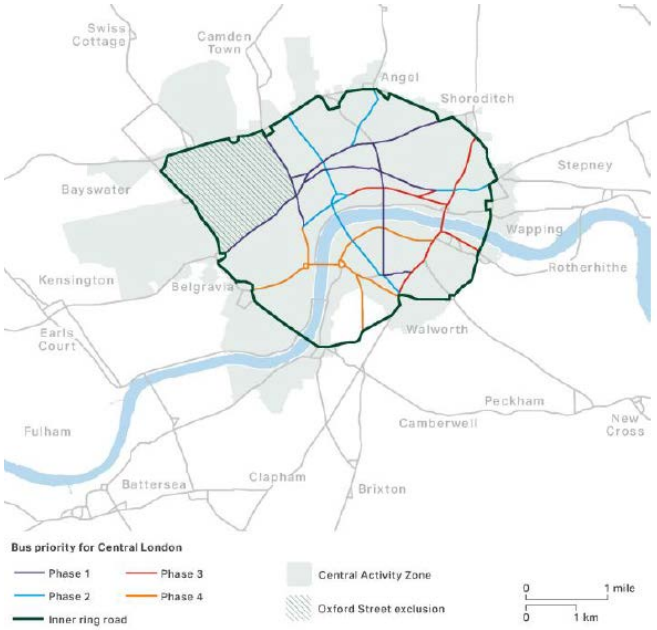
- Bus patronage growth is essential as London's population grows (to 10.5m by 2041) to avoid severe congestion, or choke off growth
- The MTS sets ambitious targets for an 80% public transport walking and cycling mode share by 2041



Action 1: Stabilise Bus Speeds



- Implement our **Bus Priority Strategy** to further link up the network, including introducing **continuous bus priority** on key corridors and **automatic bus detection** at traffic signals
- Explore a **Central London grid**, aligned to healthy bus corridors



- Investigate more **radical bus priority interventions** including segregated bus lanes (busways)
- Investigate more **radical congestion control**
- Even with all of these interventions, **bus speeds may still see a net decline**

Vision: Get performance back to 2012/13 levels, growing patronage

Action 1: Stabilise Bus Speeds

- Implement **170 bus priority schemes** saving **170 minutes** of bus journey time across the most affected routes in 2017/18 (following on from the 159 bus priority schemes and 106 minutes of savings in 2016/17)
- Implement **bus priority** as part of the early **Low Emission Bus Zones** in 2018-2020
- Continue the comprehensive **signal timing review** programme, with bus speeds explicitly used in scheme prioritisation and evaluation
- Set **ambitious targets** for bus passenger journey times and put onto **TfL's scorecard** in 2017/18 for the first time
- Ensure that the needs of buses are properly considered within the **Healthy Streets Portfolio**. The Healthy Streets Approach has the potential to ensure that new schemes are more effectively designed than previously to balance walking, cycling and bus needs

Vision: Get performance back to 2012/13 levels, growing patronage

Peak Bus Journey Time Savings

- We are currently devising a metric for consistent measuring and reporting of bus journey time savings
- Our proposal is to measure **Peak Bus Journey Time Savings** (or delays) in **hours**, calculated across three peaks (morning, inter-, evening)
- **Reporting** will be conducted Quarterly
- **Monitoring** of schemes will be conducted by two weeks of monitoring before the scheme and two weeks of monitoring once the scheme has been embedded

- **This will facilitate an evaluation of the predicted net impact of all roads interventions, thus identifying the risk to our stabilisation of bus speed target**

Vision: Get performance back to 2012/13 levels, growing patronage

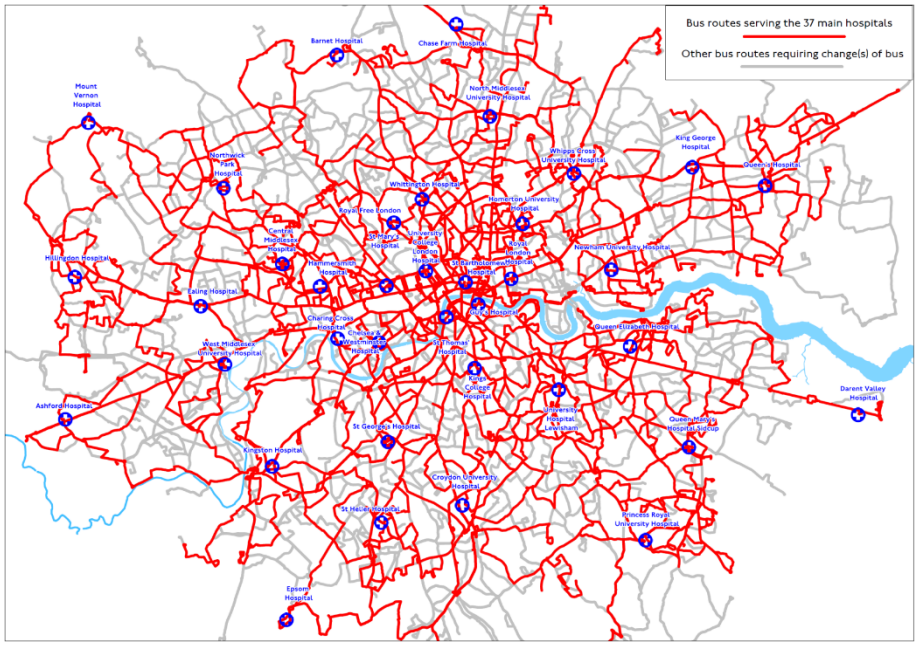
Action 2: Match the Network to Changing Customer Needs

- **Reduce capacity where demand has fallen.** For example in central London, demand has fallen somewhat ahead of forecasts. Where there are too many buses for the demand we have cost, bus flows and emissions higher than needed, and there is increased potential for KSIs. (Reduction of **6m km operated in 17/18**, saving c.£25m)
- As and when new demand is expected to appear, bring in extra capacity and connectivity, eg for suburban Elizabeth Line connections or large residential growth areas such as Grahame Park or Meridian Water.
- **Introduce new types of service** e.g. express bus routes become more feasible in suburban areas as demand densifies. (Proposal for a new express route between Heathrow and Harrow currently in development)
- Consider how best to exploit new technology, for example **on-demand buses in lower- density areas**

Vision: Right-sized frequent and reliable services supporting growth across London with higher average vehicle occupancy

Action 2: Case Study - Hospitals Review

- A review of Hospital services has concluded that whilst most **hospitals have a good bus service**, changes to NHS practices mean some services could be improved
- A specific **set of proposals** has been developed, however **most require additional funding** and infrastructure such as bus stands.
- Top priority recommendations will be progressed



- It's not always intuitive how buses link to hospitals – **customer information and marketing** will be reviewed
- Potential to **pilot on demand services**, especially in low density outer London, and integrate into future dial-a-ride and Taxicard provision focused on local services

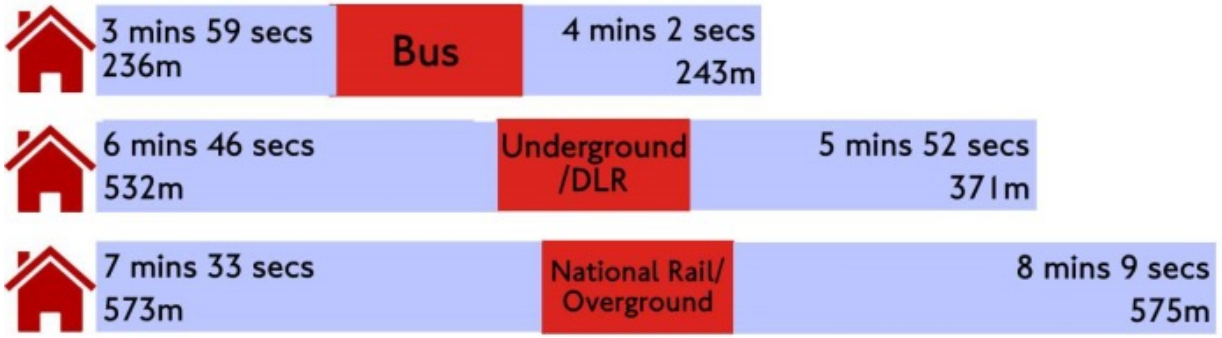
Action 3: Radically Reduce Emissions to Improve Air Quality

- **5000 buses to be retrofitted** to Euro VI emission standards in three years
- All new **double-deckers** to be **hybrid Euro VI**
- **300 zero-emission** vehicles by 2020
- **12 low emission bus zones**
- Potential for **in-service charging** – electric 80% of time
- An **ultimate goal of 100% zero emission** vehicles

<u>Vision:</u> Set the pace for environmental performance for large bus networks

Action 3: Healthy Streets

- Buses are at the centre of the **Healthy Streets** lifestyle
- Our **public transport supports active travel** as part of our customers longer journey



50% of walking is accessing public transport

- Delivering this agenda will mean **going further** in future in supporting **modal shift to walking and cycling**
- And demands **further emphasis on public transport** to capitalise on its role **supporting active travel** as part of longer journeys, and its ability to deliver **efficient, safe and clean movement**
- We will need to manage conflicts on the road network, prioritising to achieve these aims, and take **a new approach right across TfL to support Healthy Streets**

Action 4: Vision Zero for Road Safety

- A target of **0 fatalities** on the bus network by 2030
- Reduce those killed or seriously injured in or by London buses by **70%** by 2022
- A new **Operator Safety Scorecard** in 2017
- **Rigorous follow** up of all major incidents, including improved incident support
- The **best safety technology** from cars embedded in the bus fleet, including Intelligence Speed Adaptation (ISA) and Automatic Emergency Braking (AEB)
- A new **Bus Safety Standard** in contracts from Winter 2018
- Improved **safety highway engineering** at collision hotspots
- **Improved data and transparency**, including publishing of additional safety data
- Introduce a **new safety training module** for the bus driver training programme


Safe Speed


Safe Roads


Safe Vehicles


Safe Behaviours

Vision: Buses are to be an integral part of TfL's strategy to drive down casualties

Action 5: Be at the Leading-edge of Customer Service

- Develop **customer service standards** for bus stations
- **Improve the on-board services** (e.g. cleanliness, seating, air-conditioning, USB charging points)
- Experiment with **different vehicle layouts and branding** to reflect different services, e.g. local town centre buses, larger trunk route buses with potentially more seats, air conditioning and better accessibility
- Improvements to **accessibility** e.g. audible information at bus stops, addressing on board issues such as crowding and space for wheelchair users, improving staff availability
- **Customer focus training delivered** to **24,700** bus drivers and all our front-line buses staff
- Communicate network developments and enhancements to our passengers through **effective marketing**
- Improve **customer information** during disruption and delays
- Introduce the next generation of **bus location technology** supporting a 'whole journey' approach to information provision e.g. 507/521
- Plans to **visit garage open days** and **depots** to promote engagement with operators

Vision: World-class levels of customer service

Action 5: Be at the Leading-edge of Customer Service

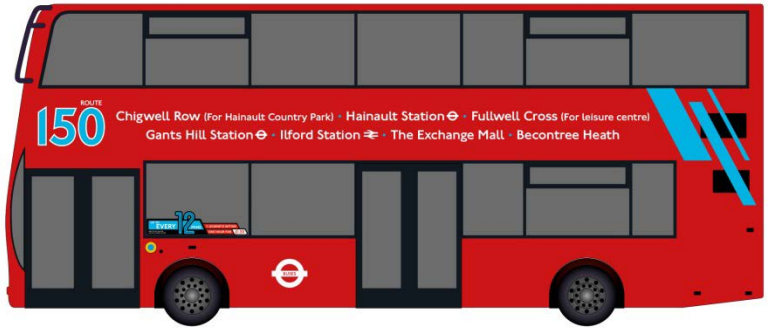
- Enhance our **marketing, communication and branding** to give a more intuitive presentation of the bus network to our passengers

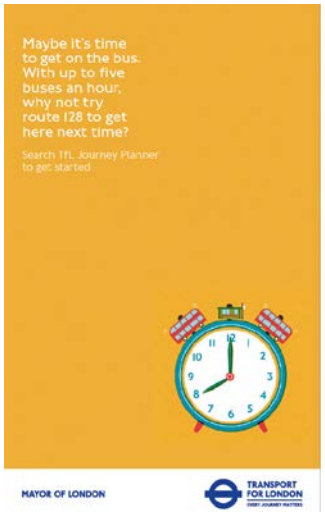
Marketing Campaign: two pilot areas (Barkingside and Hayes)

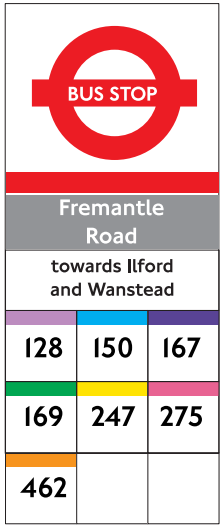
- Phased implementation from July - six months in each area
- Help create **'mental mind maps'** - demystify the routes and help customers understand their local network
- Encourage trial using a combination of simplified, enhanced customer information and targeted marketing.

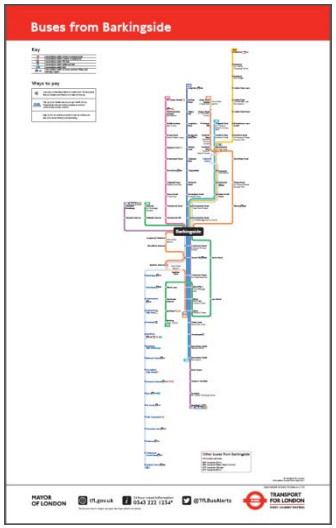
Marketing Campaign

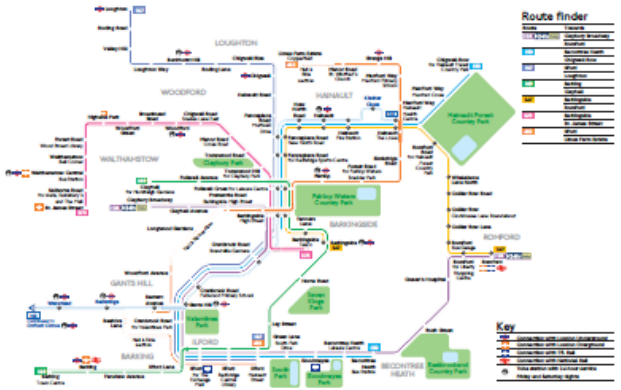
- Changes to bus livery
- Simplified area network maps and bus stop timetables
- Bus linear maps
- Better wayfinding
- Targeted PR and marketing
- Engagement with operators

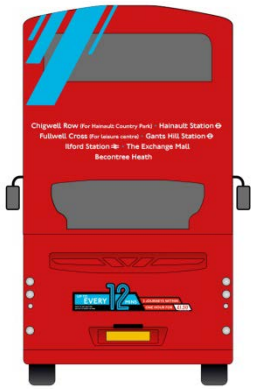




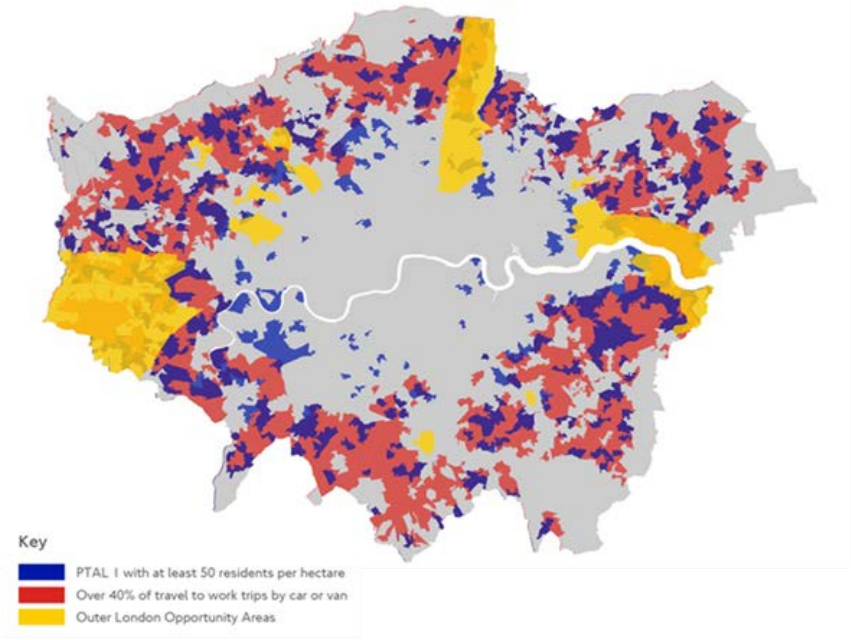








Service Innovation



Areas that could potentially benefit from DRT services should be identified using a range of measures, depending on what a service is trying to achieve. This could include:

- Serving moderately dense areas with low access to public transport
- Offering an alternative in areas of high car dependency
- Supporting new growth areas

- Trial **on-demand services**
- More **express bus services** in the suburbs as demand density grows
- More dedicated, potentially segregated **bus lanes**
- **Vehicle innovation** e.g. small bus or autonomous shuttle

Summary

- London's roads are **more congested** than ever before, and this has had a massive impact on the bus network
- **Bus ridership is falling** and in the short term network volume will need to reduce to reflect this
- **Customer behaviour is changing**, with more real-time information enabling customers to make 'in the moment' decisions, and changes to ways of working, shopping and leisure
- The **city is also changing**, with increasing density in suburban areas
- The bus network needs to be at the **leading-edge** of responding to this
- The bus network will do this whilst **radically improving emissions, safety and becoming ever-more cost effective**
- This buses strategy is integral to achieving the overall aims of the **Mayor's Transport Strategy**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