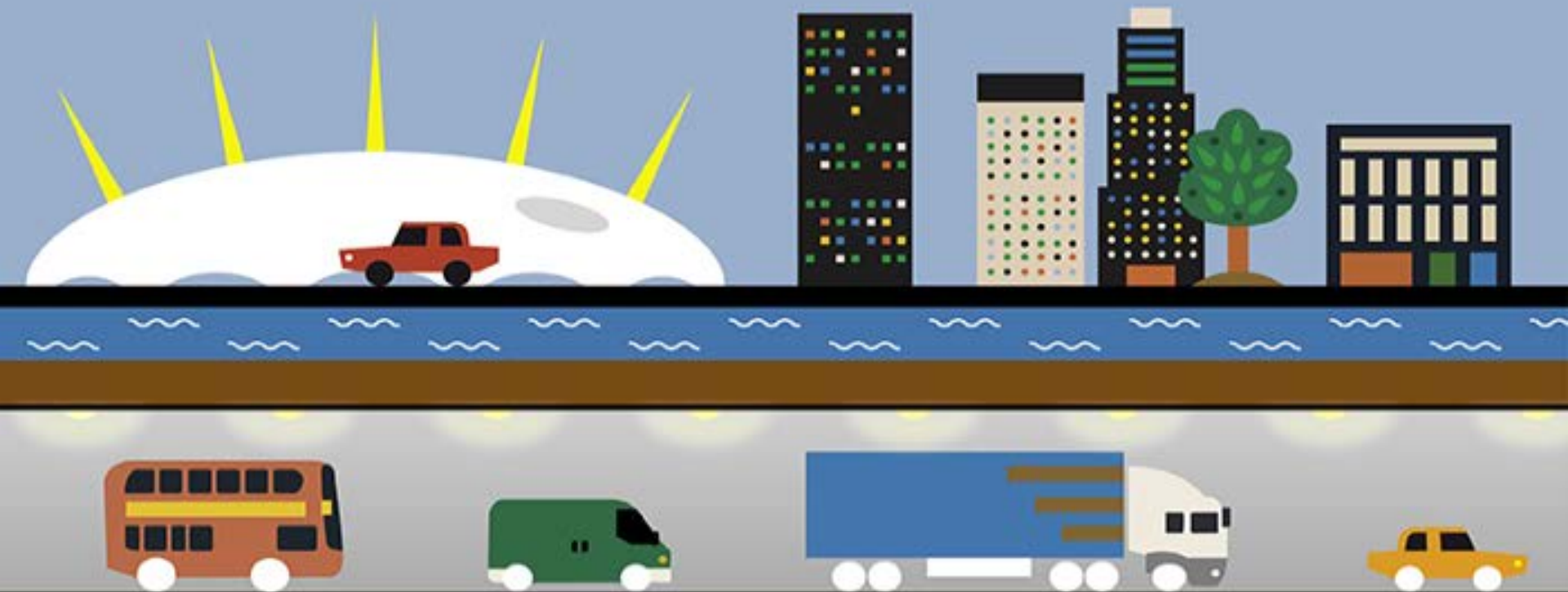


Silvertown Tunnel



Central London Freight Quality Partnership – 6

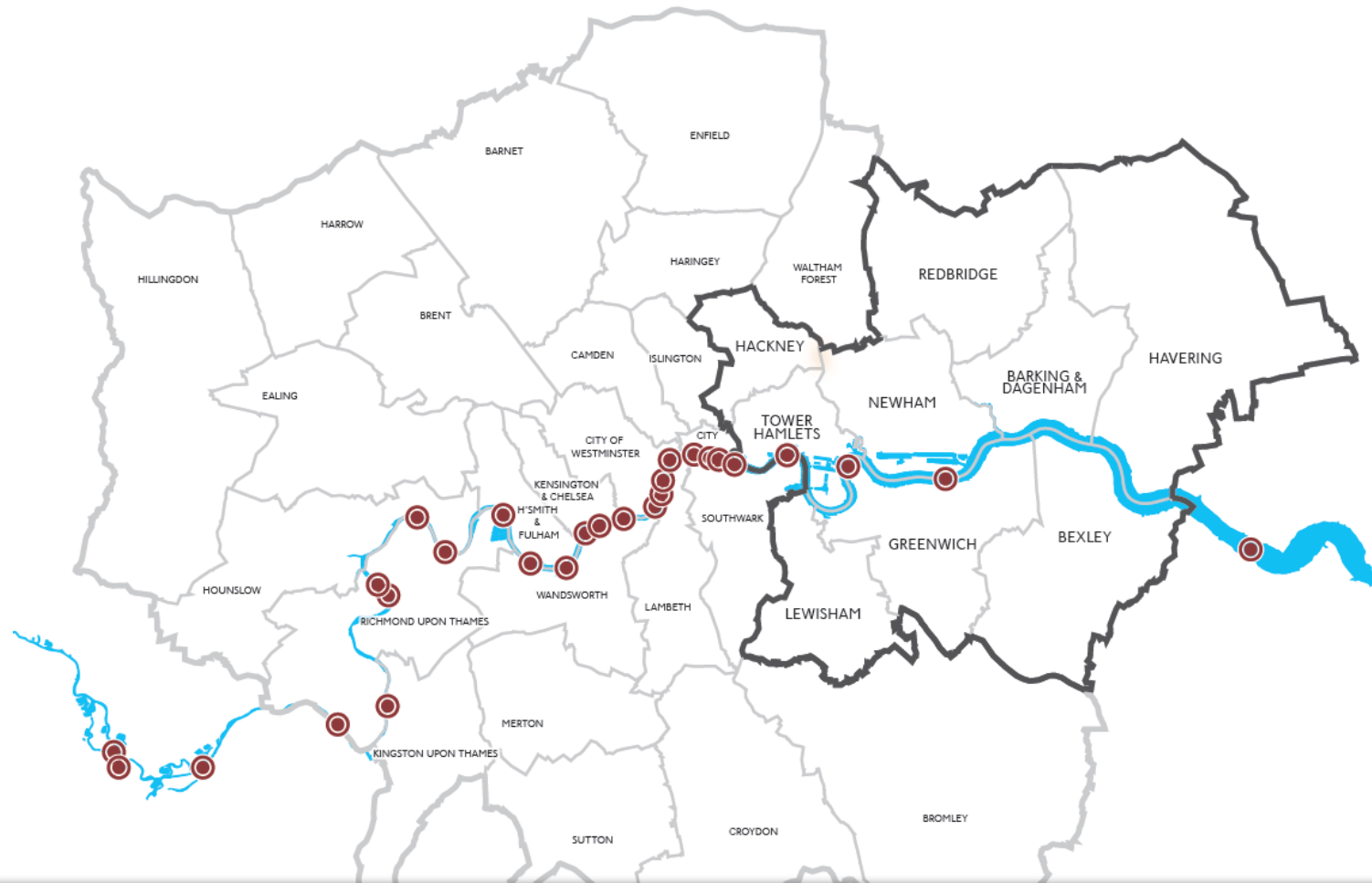
May 2015

Tom King – Transport for London

- Quick background recap
- Silvertown Tunnel: challenges to be addressed
- Silvertown Tunnel proposals
- Business views
- Next steps

Quick background recap

East London has fewer road crossings than west London



Ave. distance
between
crossings

2km

West

1km

Central

8km

East

What are the issues we face today?

An aerial photograph of the River Thames in London, showing the city's urban layout and the river's winding path. Three callout boxes are overlaid on the image, each with a white dot pointing to a specific location on the river. The first box, labeled '1. Major issues at Blackwall Tunnel', points to the northern bank of the river. The second box, labeled '2. Need for new connections to support growth', points to the southern bank. The third box, labeled '3. Woolwich Ferry concerns', points to the river itself in the center of the image.

1. Major issues at Blackwall Tunnel

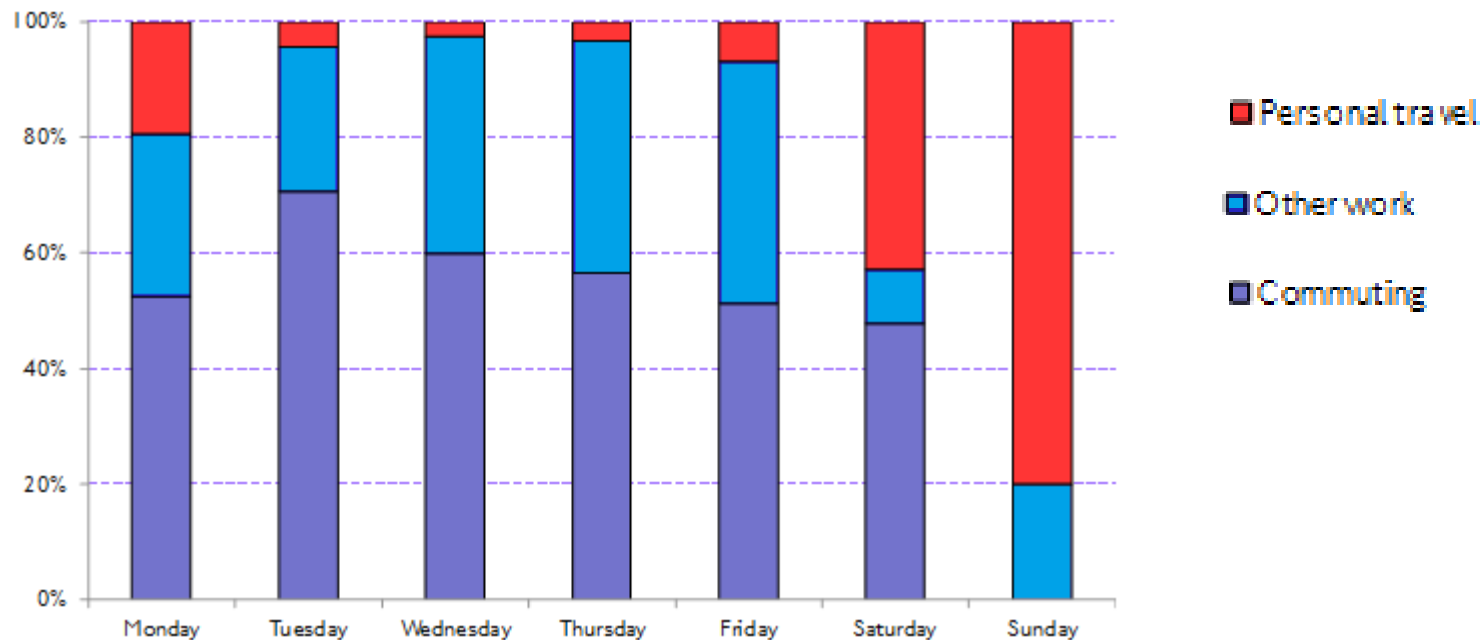
2. Need for new connections to support growth

3. Woolwich Ferry concerns

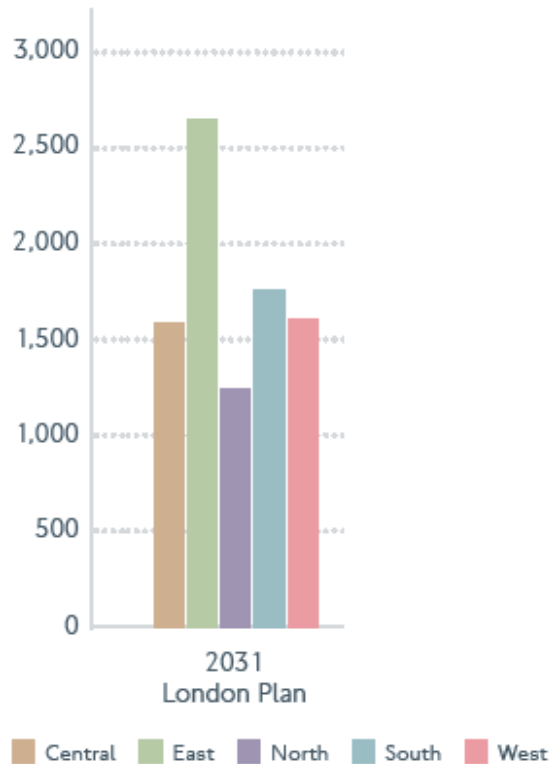
1. Major issues at Blackwall Tunnel

- Routine congestion – delays average 20mins in morning peak
- Closed over 1,000 times in 2013 to add to the congestion
- No nearby alternative

Direction	Capacity (PCUs/hr)	Flow in PCUs (0800-0900)	% capacity used (AM peak hour)
Northbound	3236	3190	99%
Southbound	3842	2934	76%



2. Need for new connections to support growth



3. Woolwich Ferry concerns

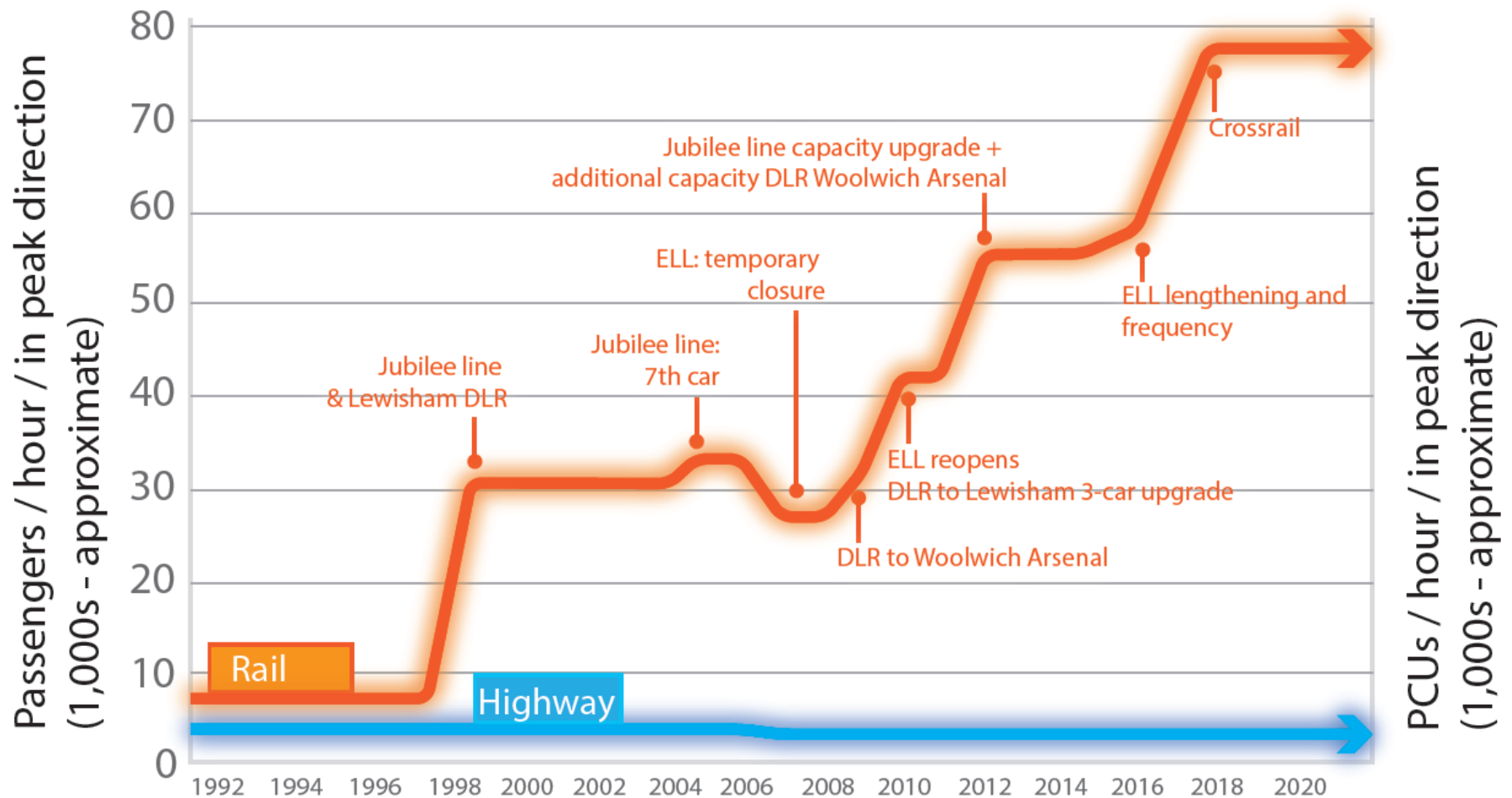
- 50 year old vessels and landing stages need replacement
- Hard to maintain reliability
- Local congestion and poor amenity for residential area



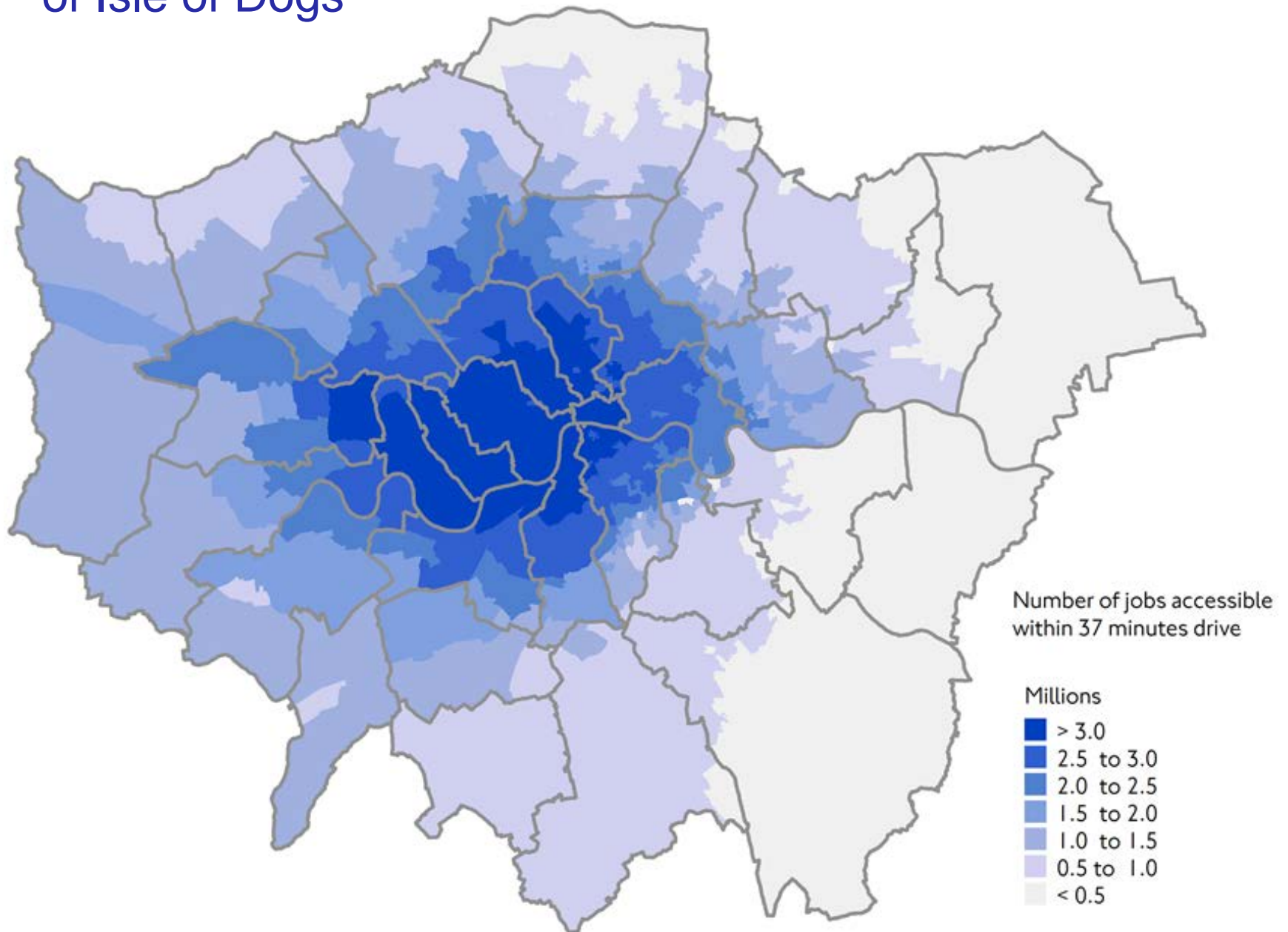


We have delivered a lot already

Cross-river public transport capacity has transformed in past 20 years and will grow by 30% with Crossrail



... but there remains a lack of highway connectivity east of Isle of Dogs



... but there remains a lack of highway connectivity east of Isle of Dogs

This impacts the degree to which businesses can access economic opportunities by:

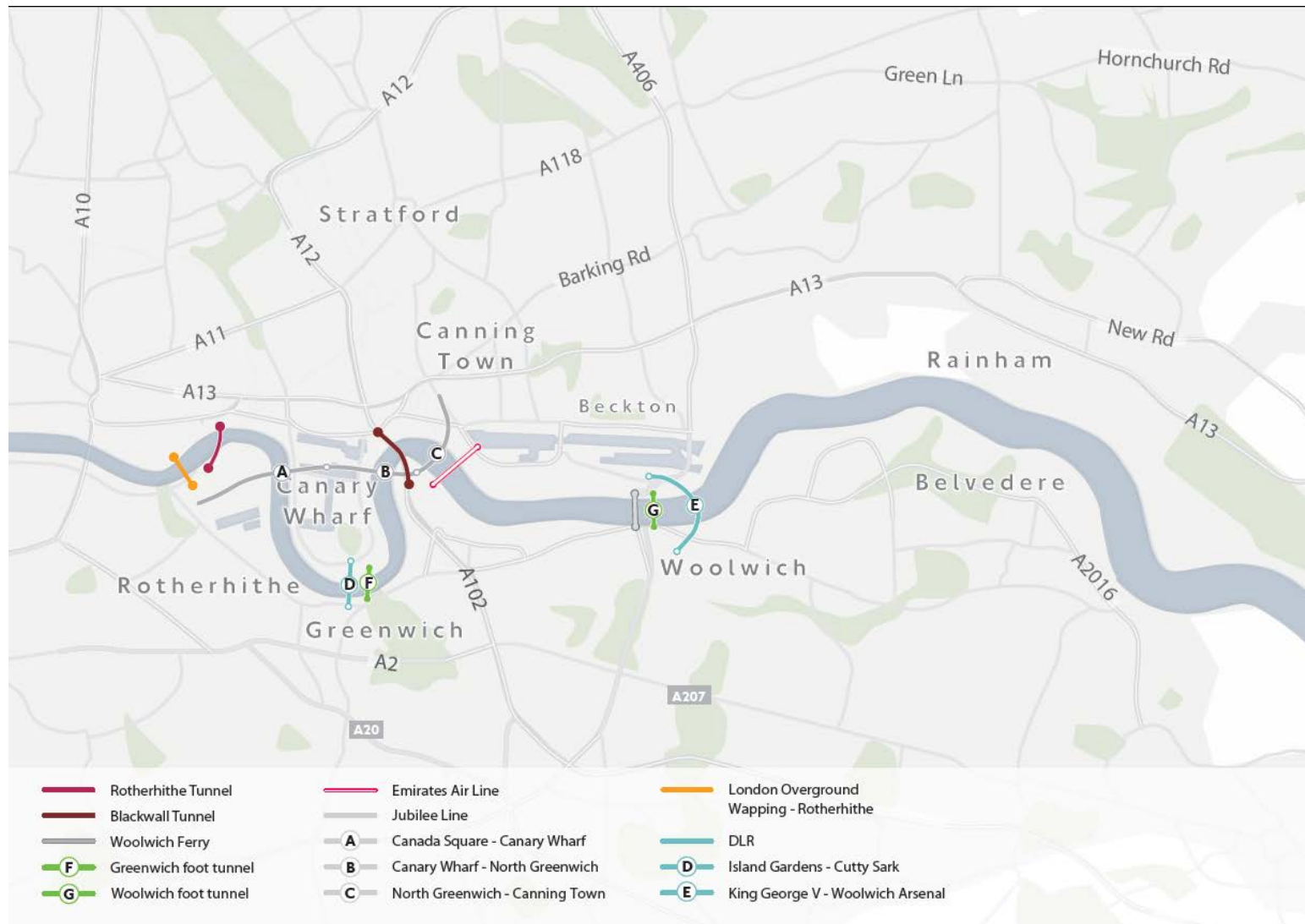
- **Restricting access to the economically active population** – there are less employees living within car commuting distance in east London than other parts of London
- **Restricting access to potential markets** – the ‘barrier’ effect of the river limits the size of markets that businesses can serve compared to other parts of London

In response, a package of new river crossings is proposed

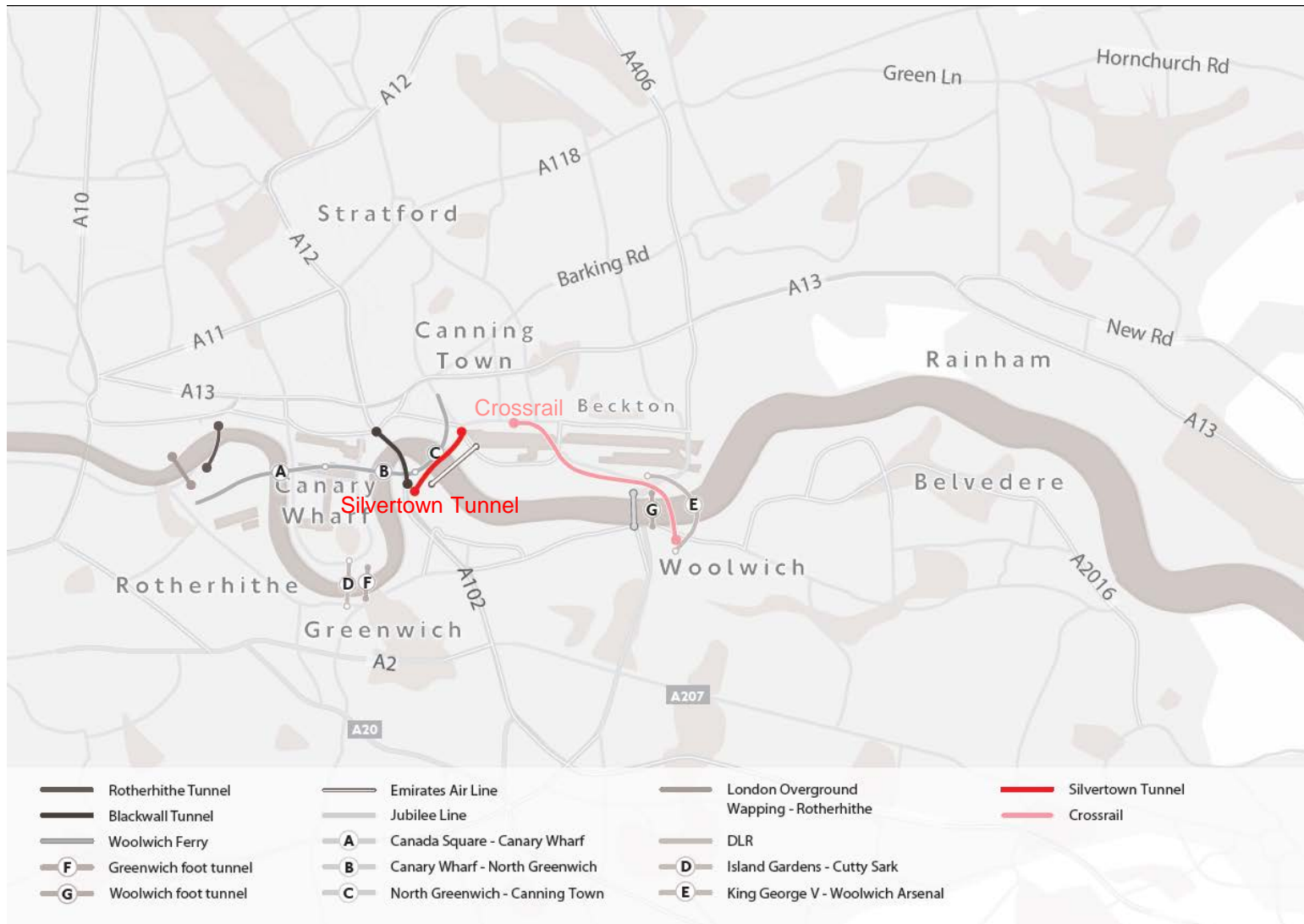
The package includes:

- A new tunnel at Silvertown to address the problems with congestion at Blackwall
- New road crossings further east to improve connectivity and support growth
- The introduction of user charges to manage demand and fund the cost of new infrastructure
- Additional public transport connections - delivered through the new crossings or additional rail crossings
- Facilities for pedestrians and cyclists further east

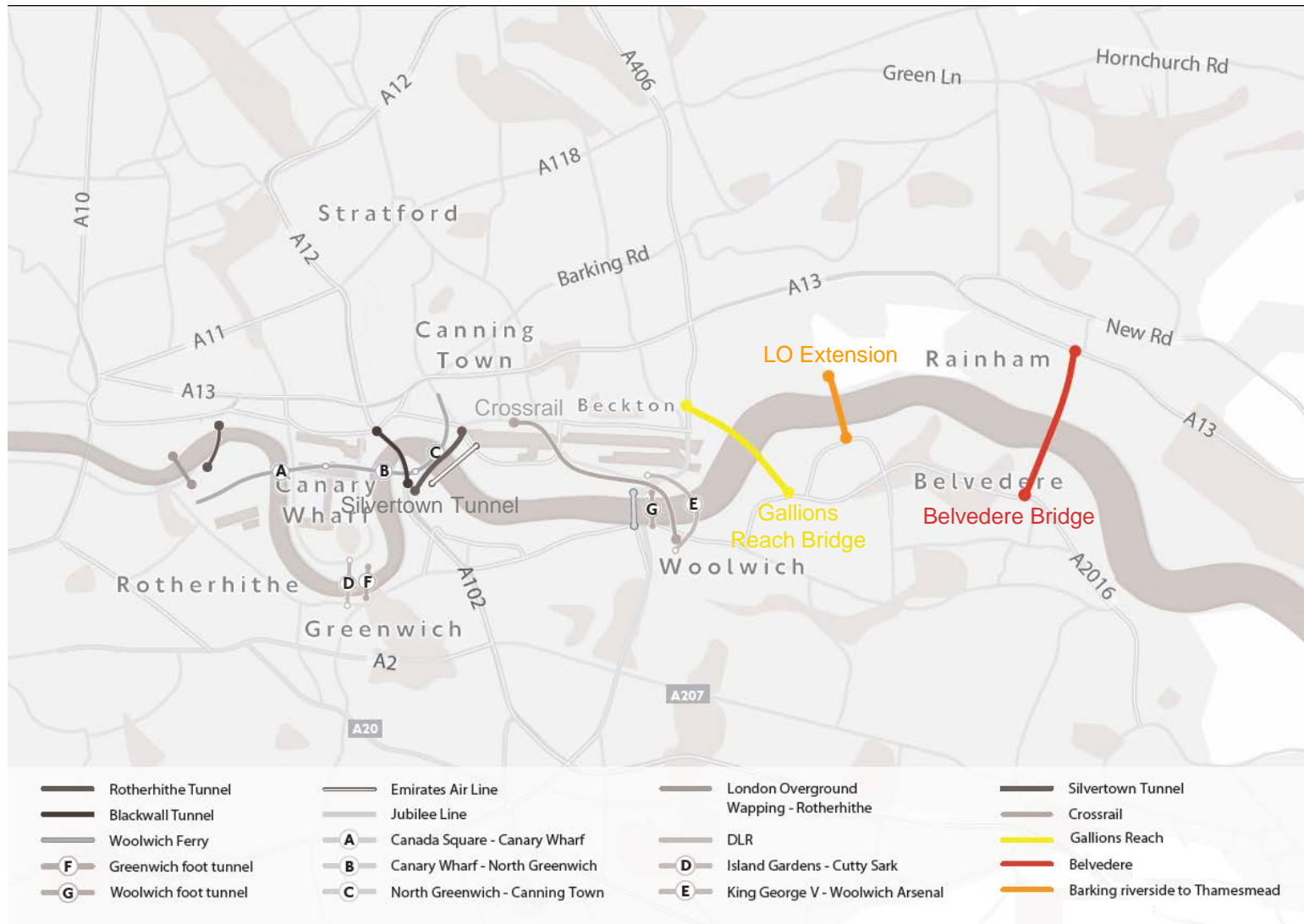
Crossings today



Crossings in 2022



Crossings in 2025 and beyond



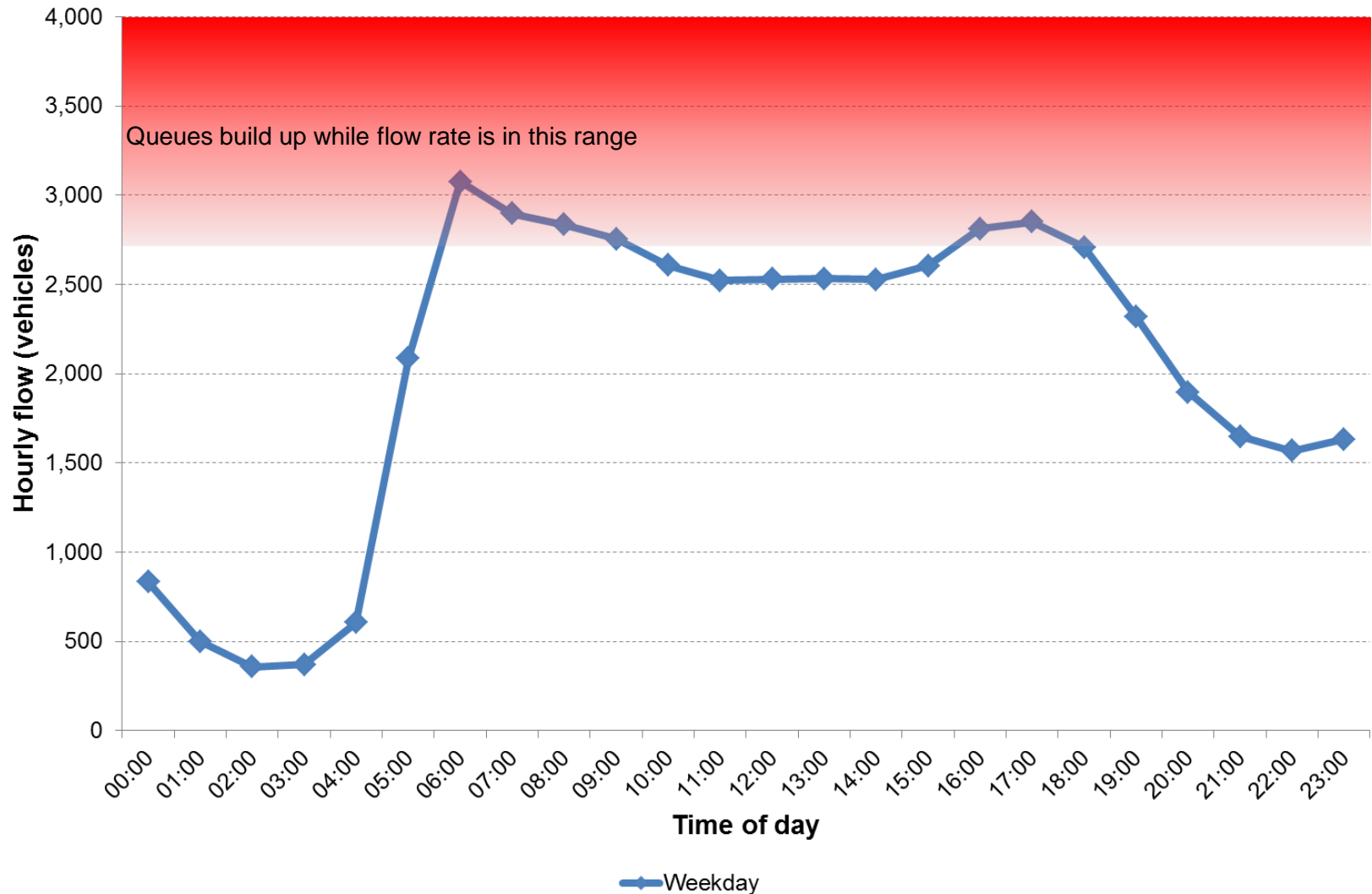
Silvertown Tunnel: challenges to be addressed

Three key challenges

1. Address traffic congestion
2. Improve reliability and resilience of the strategic network in east London
3. Facilitate and support economic growth in east London

Challenge 1 – congestion

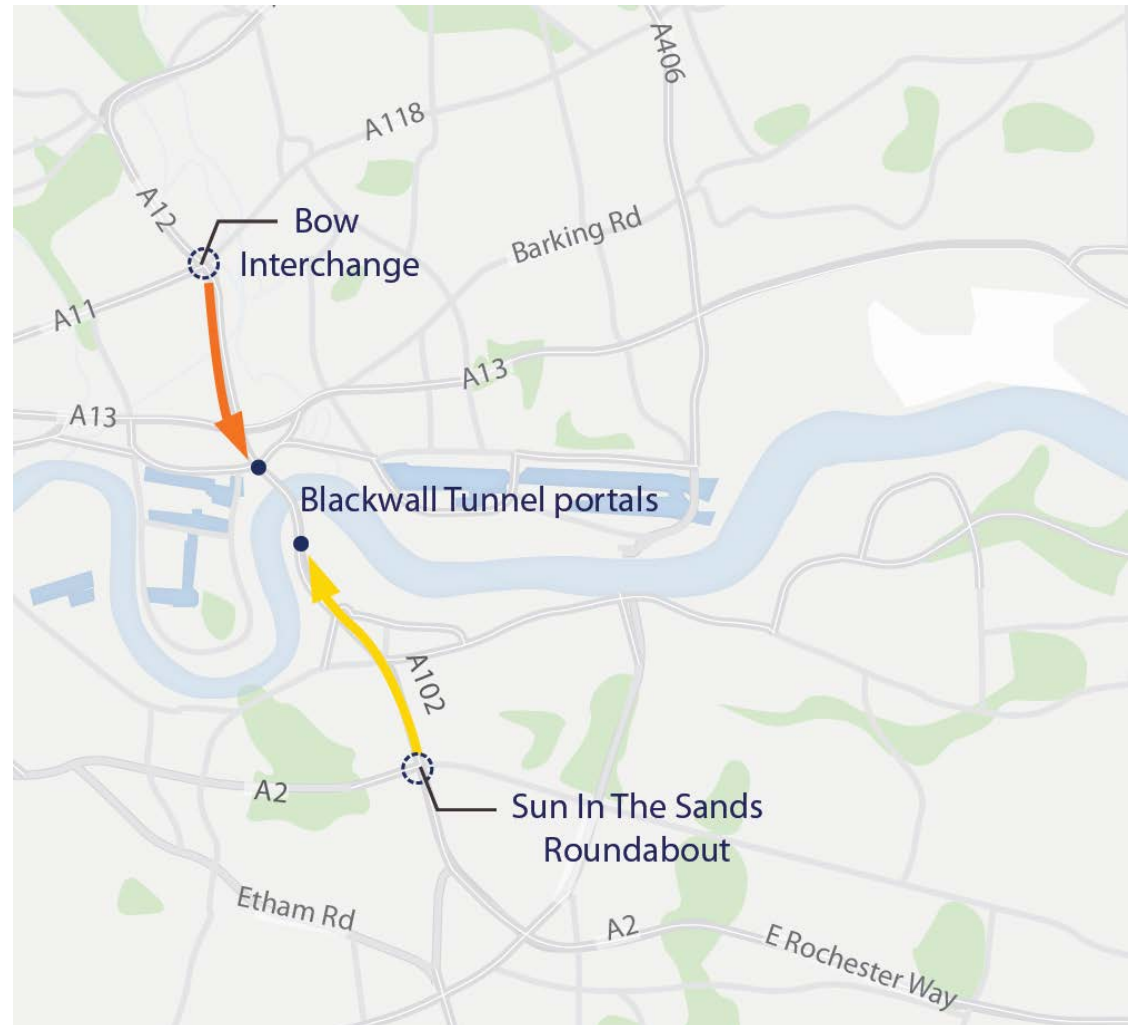
Blackwall Tunnel northbound – average hourly flows (weekdays)



Challenge 1 – congestion

Blackwall Tunnel impacts

- Daily congestion over extended peak periods
- Impacts on bus service reliability and performance
- Congestion exacerbates air quality impacts of traffic



Challenge 2 – reliability and resilience

Blackwall Tunnel incidents in 2013

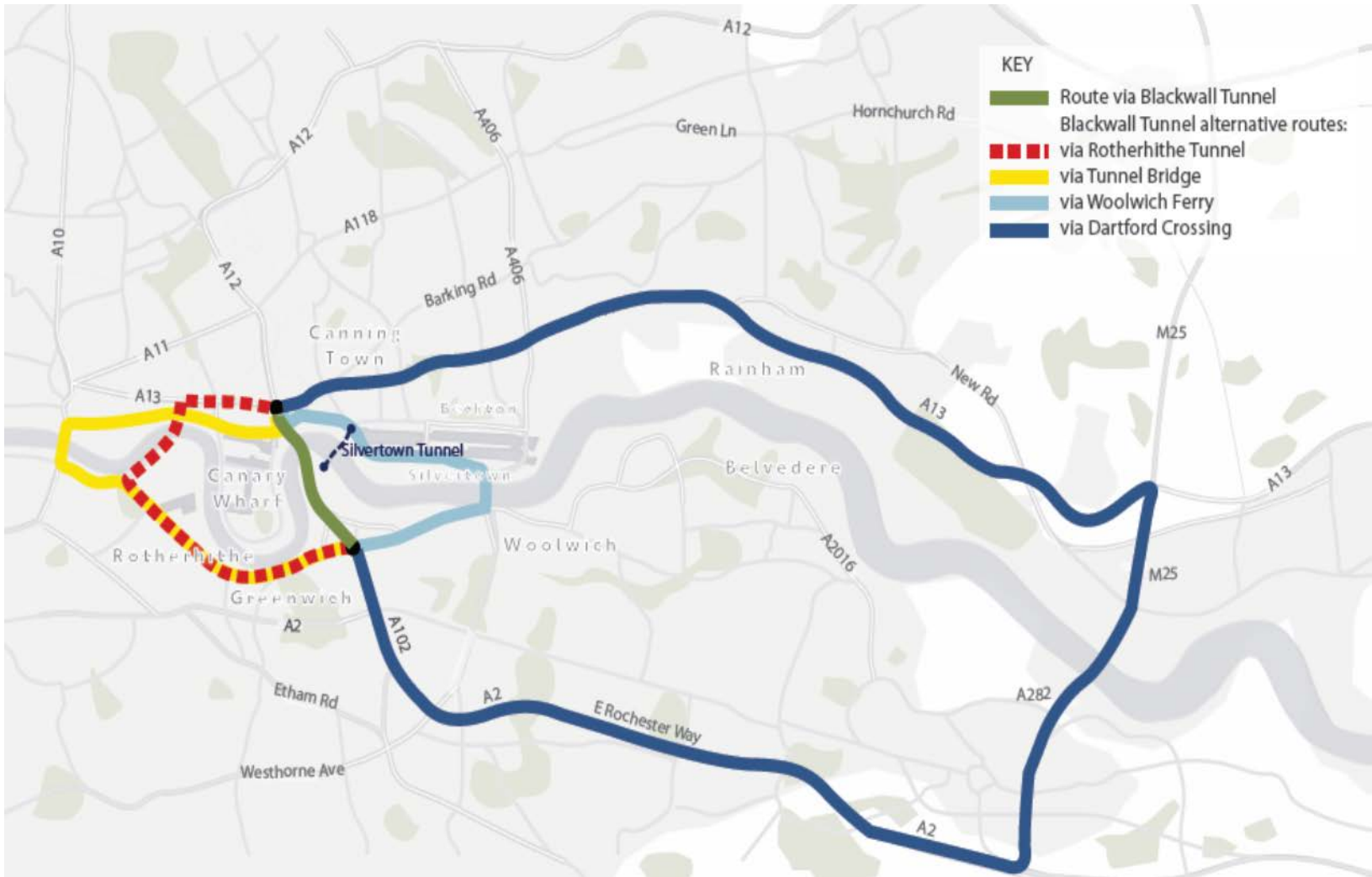
- 2013 – over 1,000 incidents per year which impacted on journey times
- Only 10 days during 2013 that were unaffected by a tunnel closure
- Incidents add on average between 15 and 30 minutes to each journey
- Some incidents add considerably more

Nature of incident	No of incidents in 2013
Overheight vehicle attempting to access the northbound bore	649
Vehicle breakdown on the approach to or within the tunnel	234
Other – eg. Debris within the tunnel	86
Road traffic accident	67

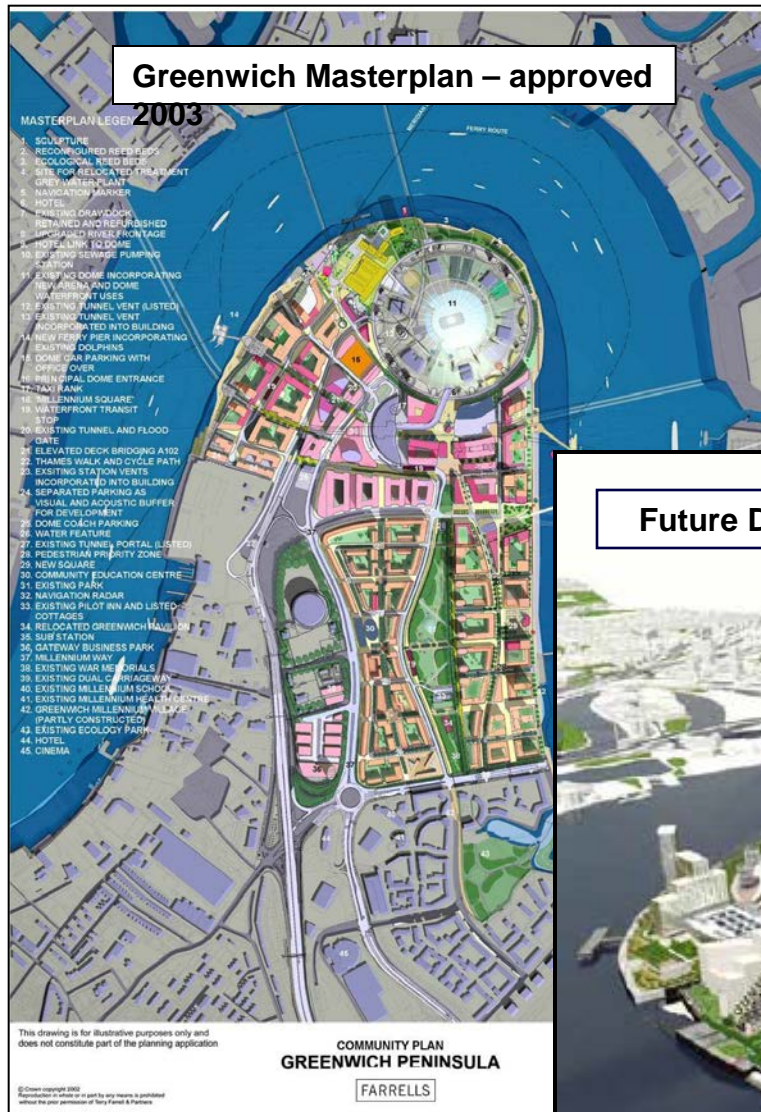


Challenge 2 – reliability and resilience

When incidents happen - lack of alternative routes



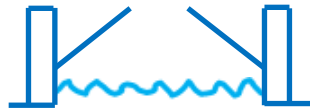
Challenge 3 – economic growth



Initial options considered



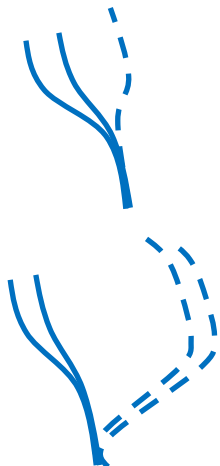
- **Ferry** - Limited capacity



- **Low and mid level lifting bridges** - Regular closures undermine effectiveness. Physical and visual impact.



- **High level fixed bridge** – Not feasible to accommodate approach ramps. Significant physical and visual impact.

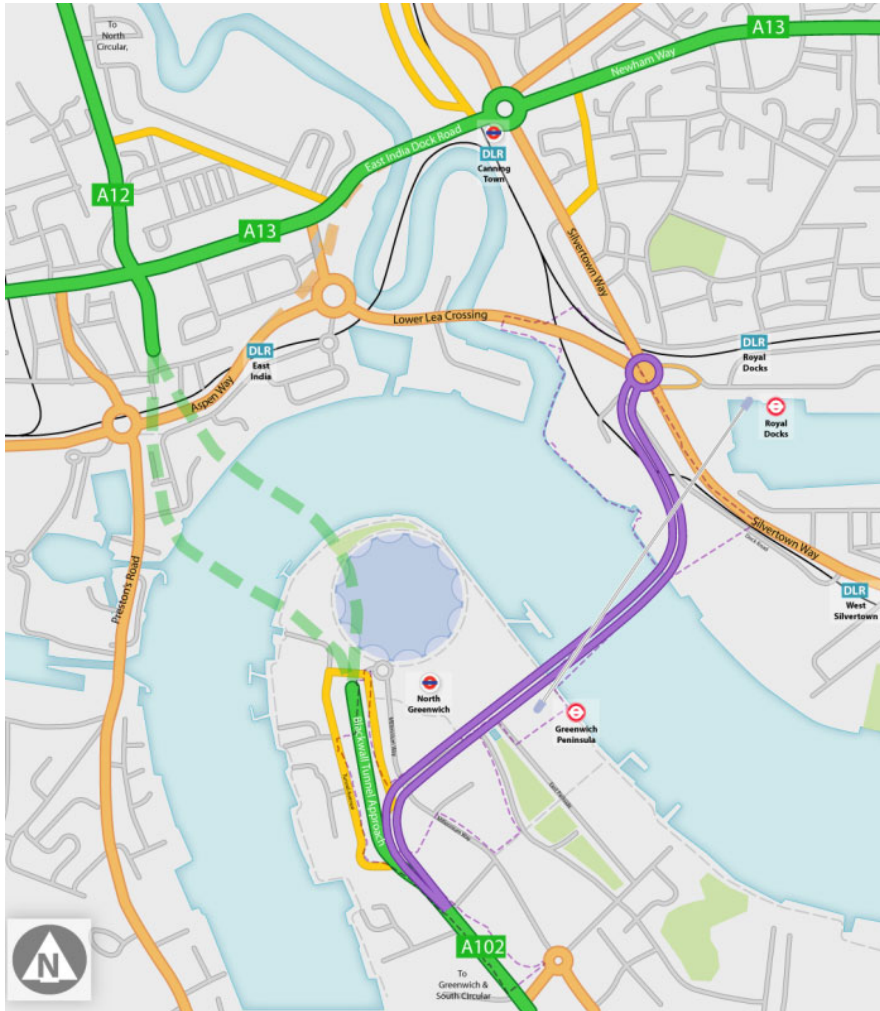


- **3rd bore at Blackwall Tunnel** - Very difficult to manage a tidal tunnel. Likely to be unachievable now tall developments in place.
- **New tunnel** - Effectively addresses existing congestion and resilience problems and economic growth. supports

Preferred
option

Silvertown Tunnel proposals

Silvertown Tunnel – overview

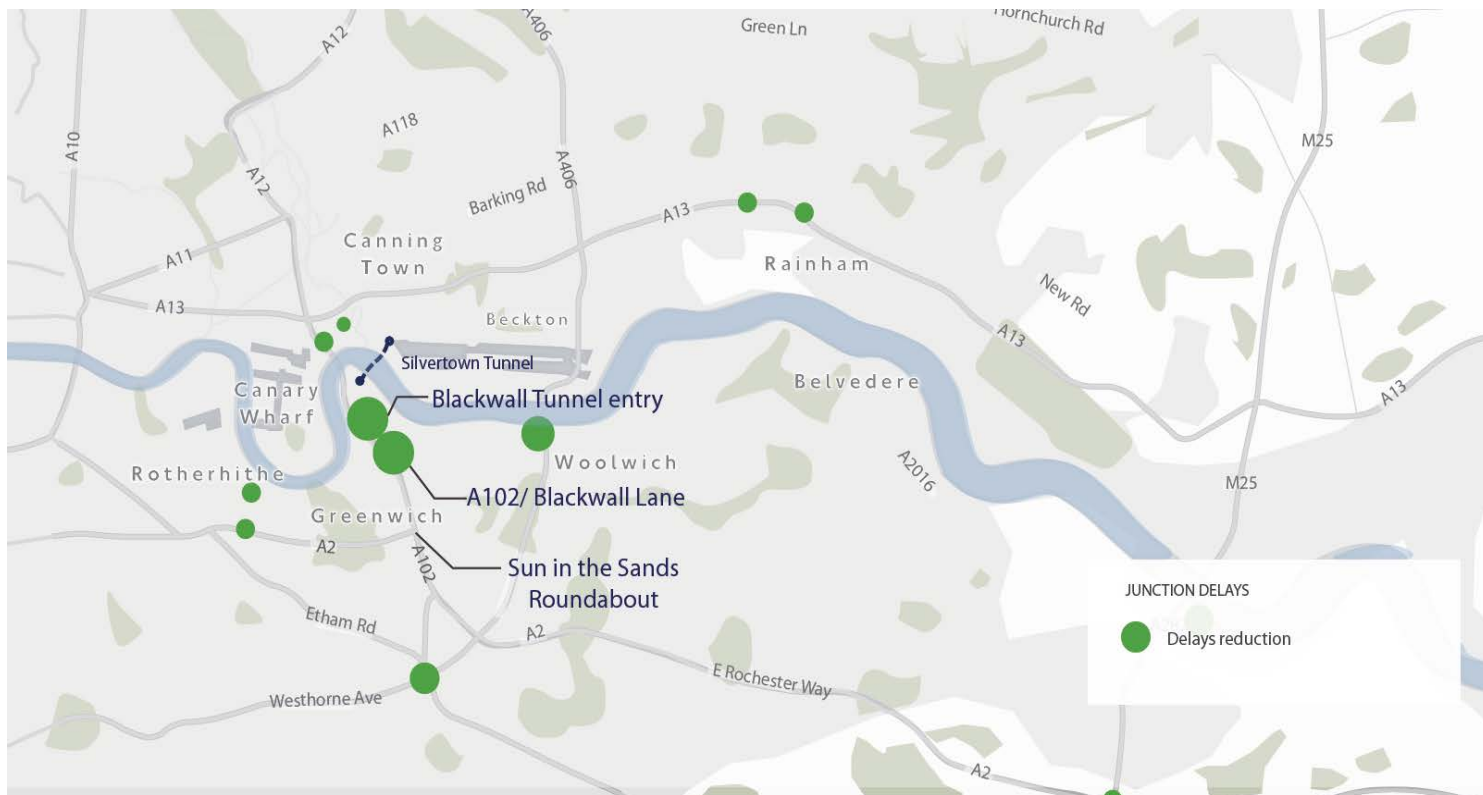


Twin bored tunnel linking A102 Blackwall Tunnel Approach on the Greenwich Peninsula to the Tidal Basin roundabout in the Royal Docks area

- Able to accommodate vehicles up to **5m in height**
- Estimated construction cost of **c£750m**
- Indicative construction programme of **4 years**, with some localised impacts affecting access to businesses in immediate area. Otherwise construction impacts will be small for a scheme of this size.
- Several overnight closures of Blackwall Tunnel will be required

Silvertown Tunnel – key benefits

- Reduce congestion and improved journey times
- Reduce closures
- Increase resilience
- Support growth
- Opportunities for public transport



Impact on journey times

The scheme will result in improvements in journey times to/from destinations north and south of the river

Lewisham - Stratford AM peak journey time

2021 reference: 53 mins

2021 with Silvertown and charging: 40 mins



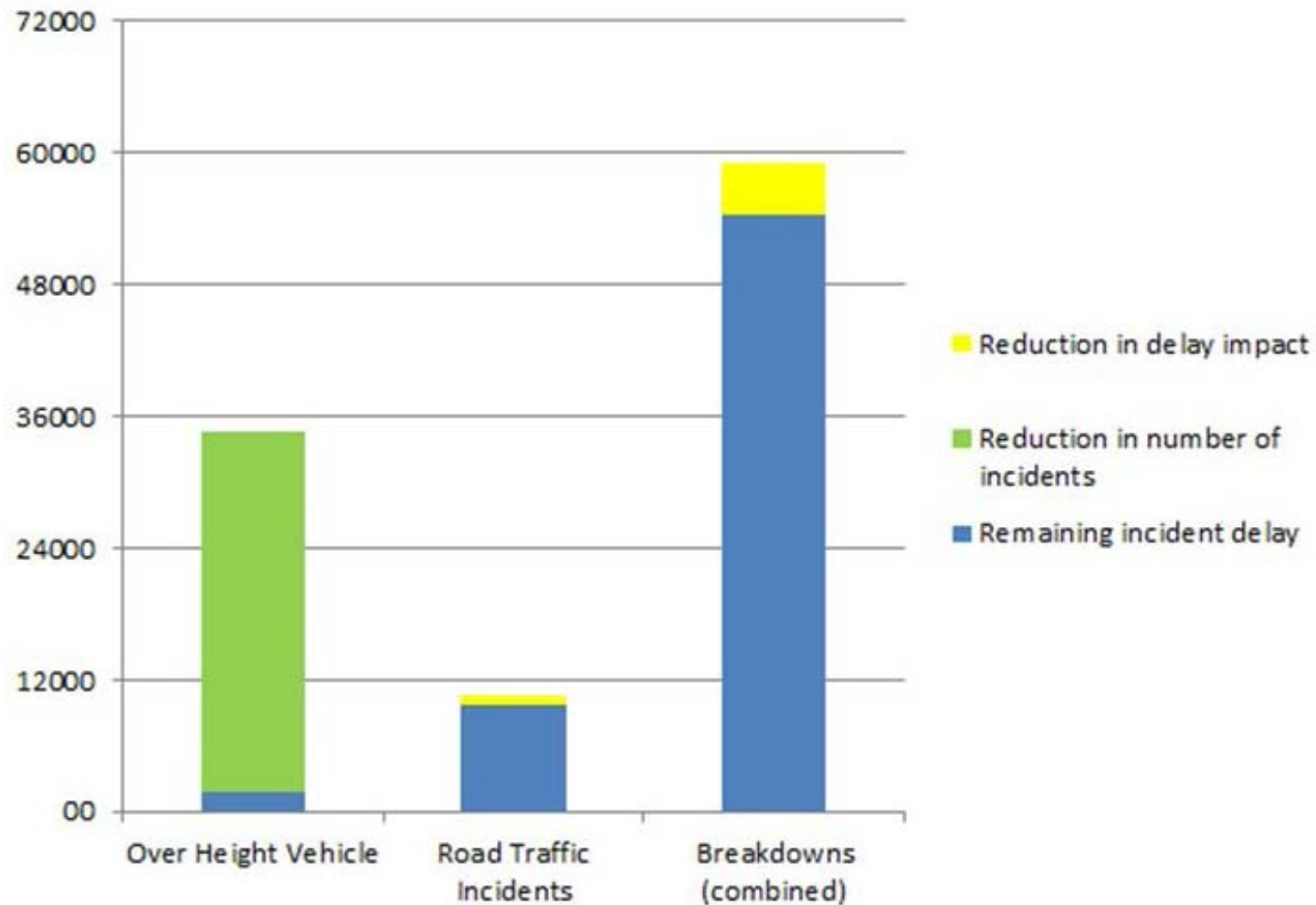
Journey time savings (morning peak hour, 2021, in minutes)

Northbound	To Stratford	To Royals	To Canary Wharf
Lewisham	13	22	16
Charlton	15	23	17

Southbound	To Lewisham	To Charlton
Stratford	1	1
Royals	4	3
Canary Wharf	3	2

Significant reduction in incidents and delay

Reduction in hours of delay in 2021



Rationale for charging

Traffic management

- Additional capacity will relieve a current bottleneck in the system
- Improved journey times will make crossing more attractive and all other things being equal, demand will increase.
- Approach roads (both north and southbound) would quickly reach capacity
- As congestion on the surrounding network increases benefits of the scheme would reduce
- Charging will help keep traffic levels to acceptable level so scheme benefits are maintained

Financial

- User charging provides a relatively steady, long-term, growing (inflation linked + traffic growth) revenue stream
- Help to pay for the scheme

Charging regime must also:

- Be publically/politically acceptable, not cause wider detrimental economic impacts, support environmental goals, be efficient and cost effective to operate, be easy to understand.
- Fair, transparent, predictable, free from fraud, promote wider goals of the Transport Strategy

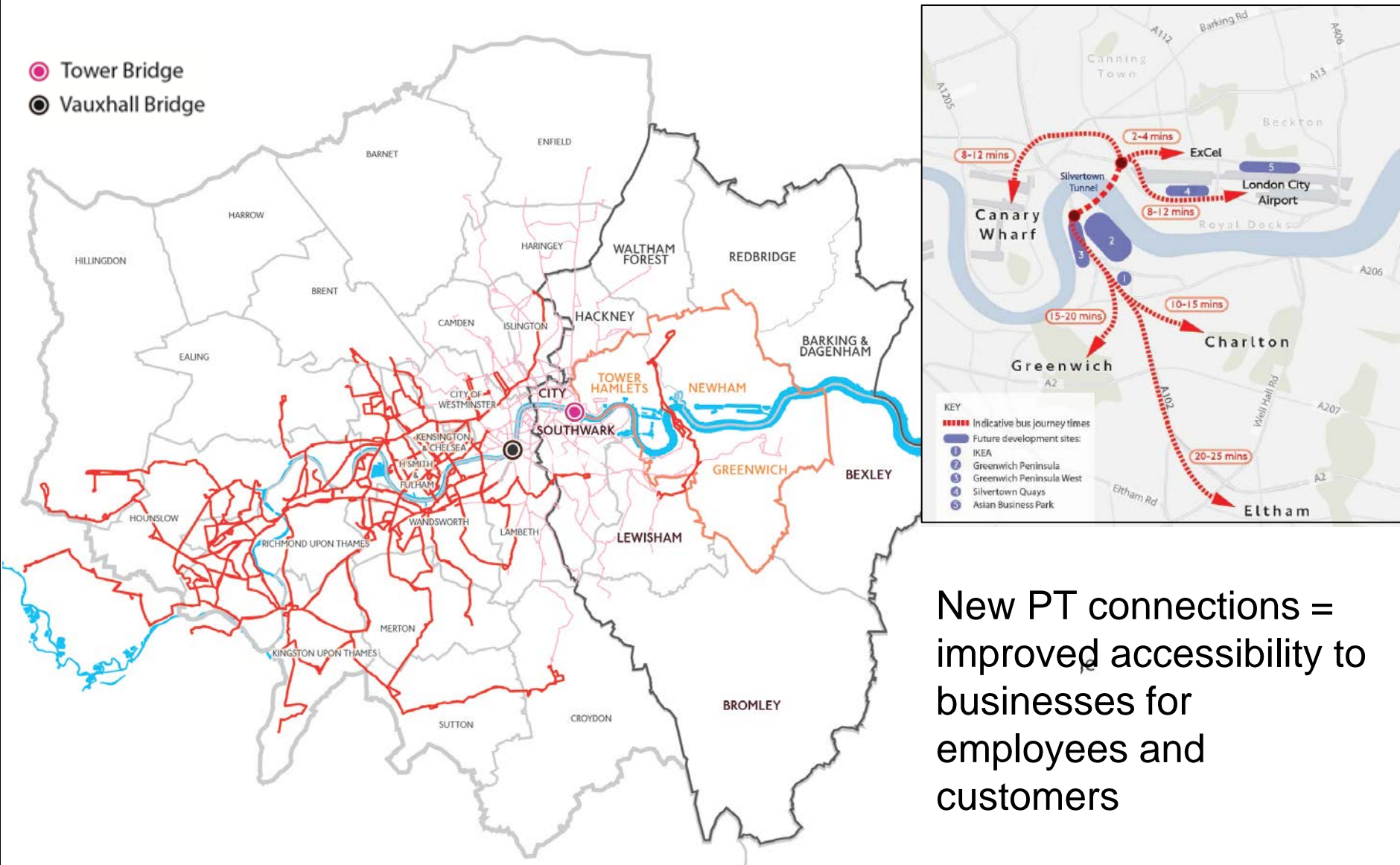
Charging principles

- Charges will be higher in the peak periods in the peak direction i.e.
 - AM peak northbound
 - PM peak southbound
- Different rates for different categories of users, with charges broadly similar to the Dartford crossing (below)

Dartford Crossing - 2014 prices	Day charges (0600-2200)	Night charges (2200-0600)
Motorcycles	Free	Free
Cars	£2.50	Free
Two-axle goods vehicles	£3.00	Free
Multi-axle goods vehicles	£6.00	Free

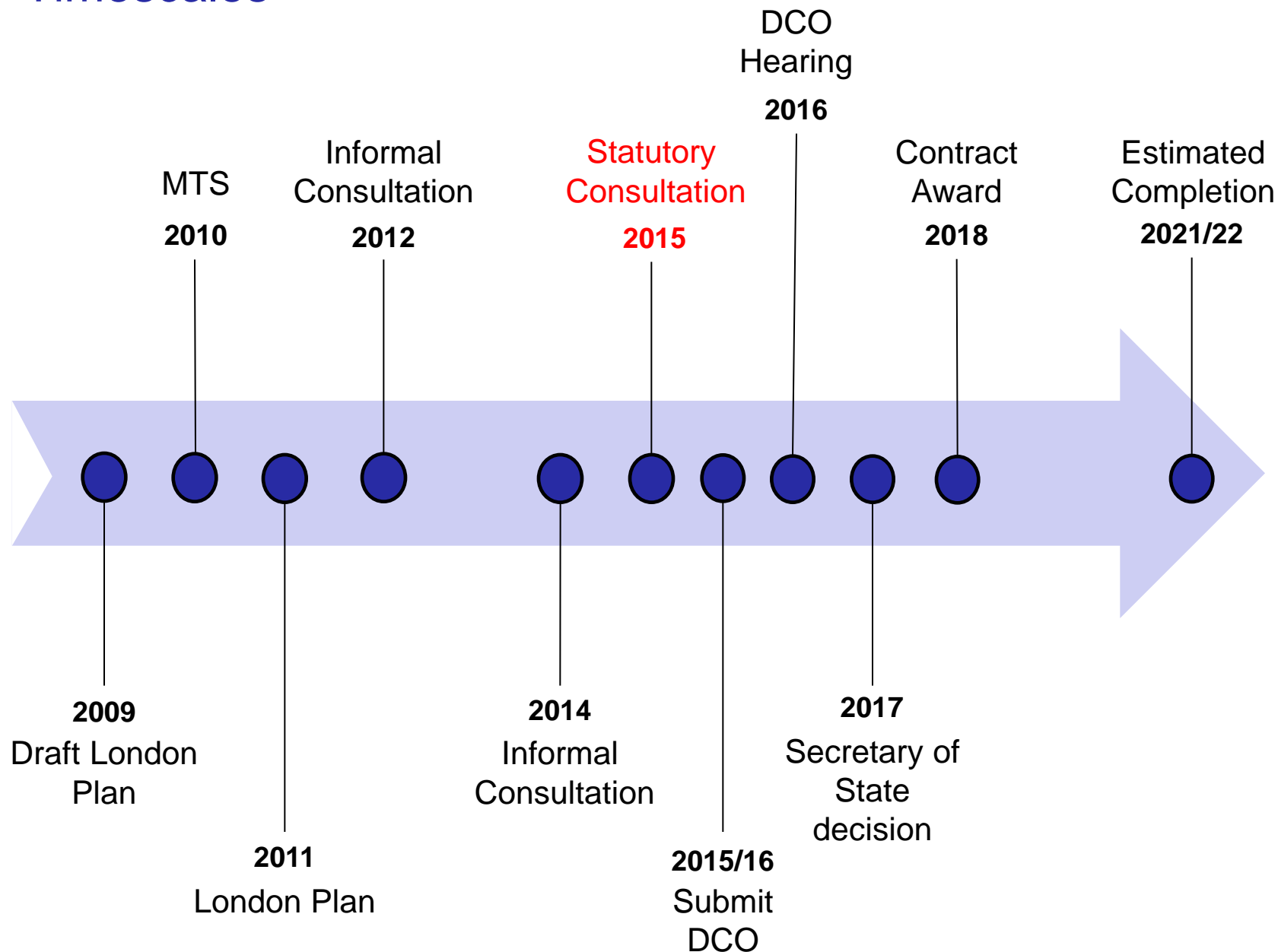
- Users will be encouraged to sign-up for accounts to benefit from lower rates
- Local discounts for certain users are currently being assessed

Opportunities for new public transport connections



New PT connections = improved accessibility to businesses for employees and customers

Timescales

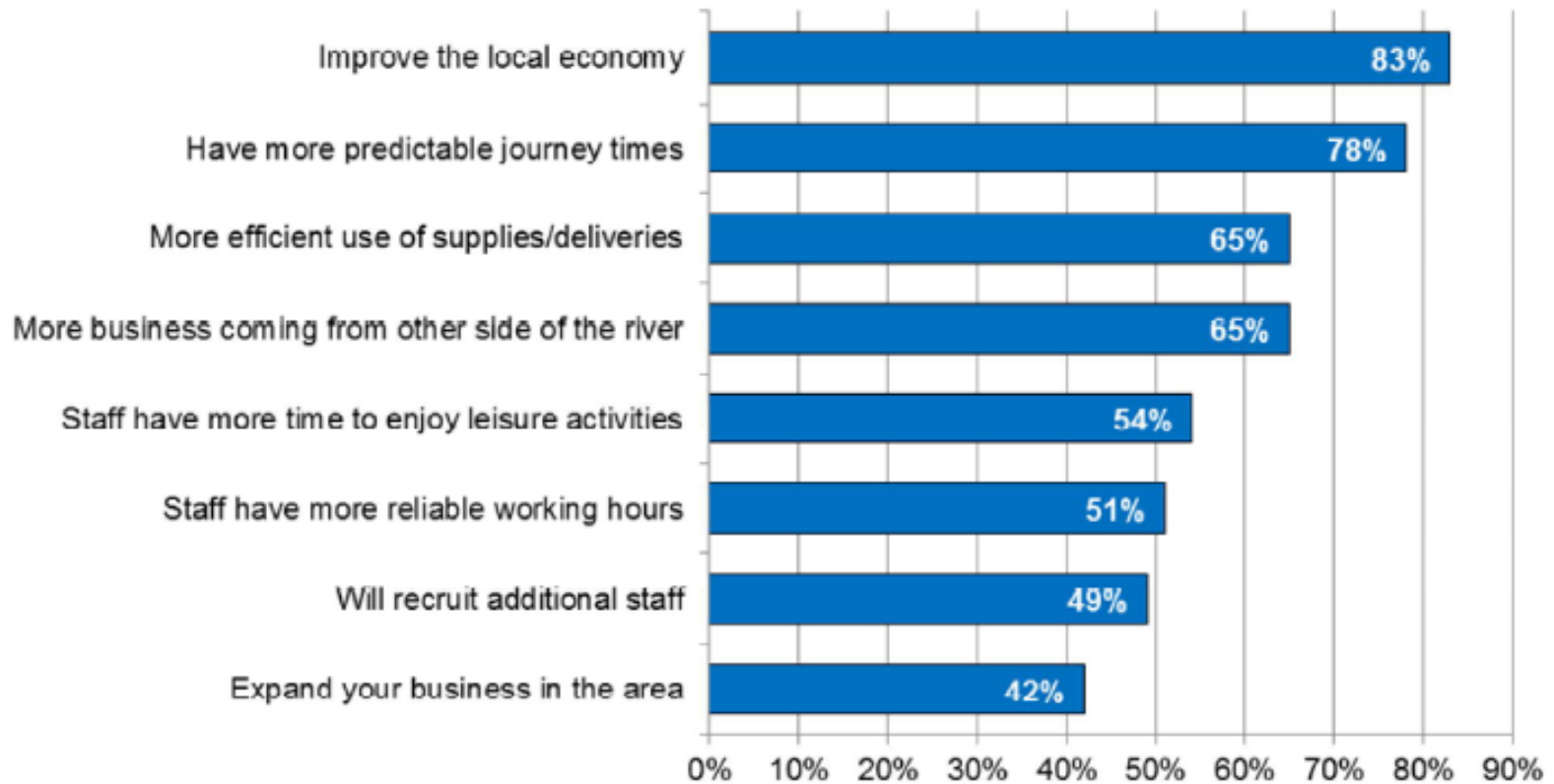


Business views

What have businesses told us about the proposals?

- Survey of 800 local businesses undertaken in 2013
- Businesses based in eight east London boroughs and questioned on a package of crossings (including Silvertown Tunnel) for improving cross-river connectivity
- Sectors sampled included:
 - Primary / Manufacturing
 - Construction
 - Transport
 - Retail and Distribution
 - Services
- Range in sizes from 1 to 200+ employees

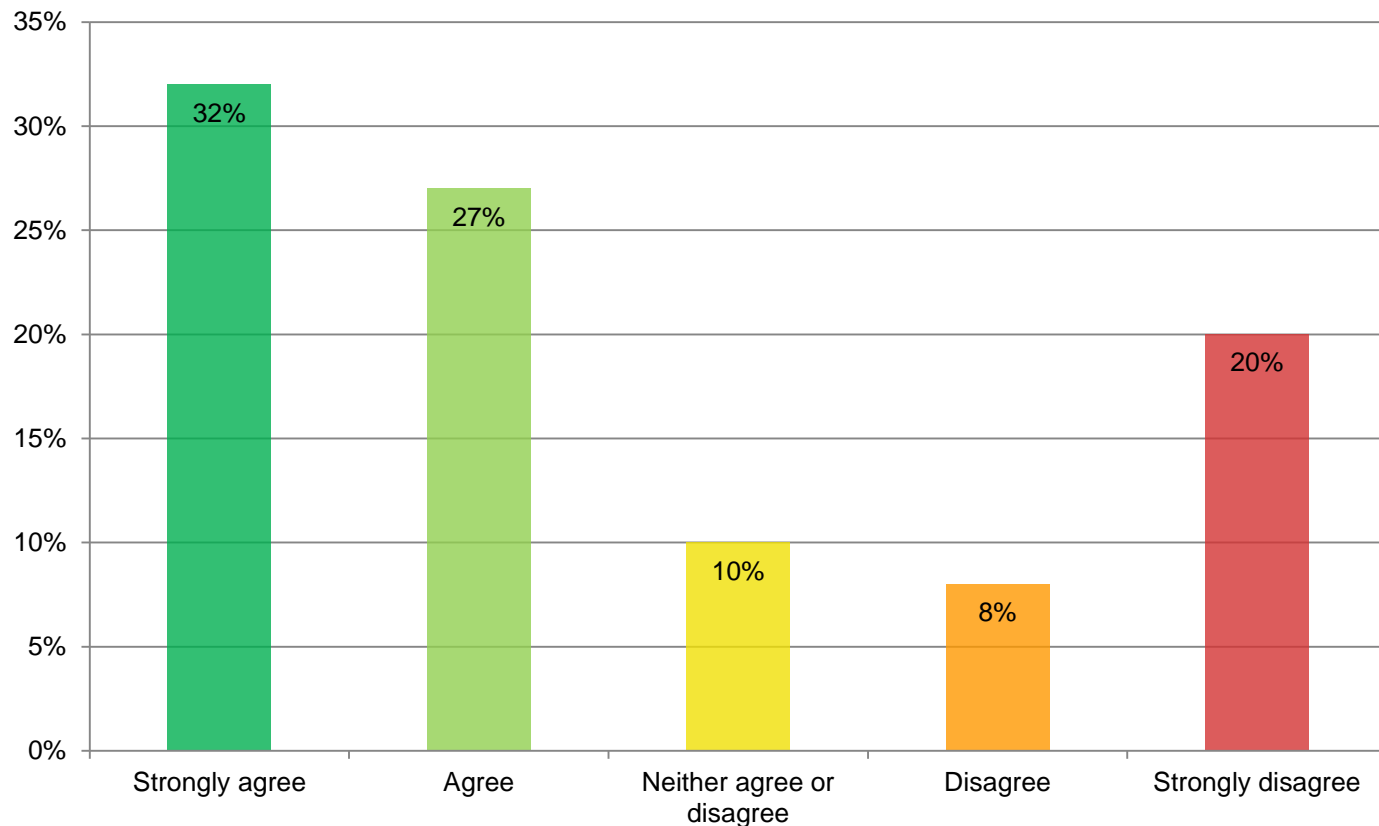
Anticipated benefits from new east London river crossings



Key findings

- 64% of firms say the ability to cross the river is important to the successful operation of their business
- 65% of firms said poor reliability constrains or disrupts their business
- Around a third of firms see the **river as a barrier** to their development on the other side
- But the numbers are higher amongst firms in Greenwich (49%) and Newham (47%)
- Around half of businesses expect to recruit additional staff as a result of investment in river crossings

Willingness to pay a charge if journey times become more reliable



59% of firms said they would be willing to pay a charge in line with current Dartford rates if it made journey times more reliable

Next steps

Engagement with businesses

- Support from businesses and business groups is key in making the case for the scheme
- TfL is keen to further engage with a range of businesses to understand how poor river access affects operations and how the Silvertown Tunnel scheme could help
- If you are willing to be involved, please contact:
RiverCrossings@tfl.gov.uk

Next steps

- Further engagement with affected businesses – **ongoing**
- Formal response to informal consultation published – **Spring 2015**
- Statutory consultation – **Summer/Autumn 2015**
- Submission of DCO application to Secretary of State – **Late 2015/early 2016**

Questions?

Tom King – Transport Planning Manager

www.tfl.gov.uk