



Delivering Crossrail 2

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Hertfordshire Chamber of Commerce
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MAYOR OF LONDON



London today

8.6 million

Residents and growing

31 million

Journeys per day

75%

Of all UK rail
journeys start or
end in London or
the South East

30 million

Visitors per annum

Herts today

25%

Of the working
population commute
and work in London

£2.1 billion

Value of visitor economy

1.14 million

Residents and growing

South east population growth

In London the population
will reach

10.5

million

by 2041 – a 22% increase
from 2015 and equivalent to
adding the combined
populations of Birmingham
and Glasgow during this
time

In Hertfordshire the
population will reach

1.34

million

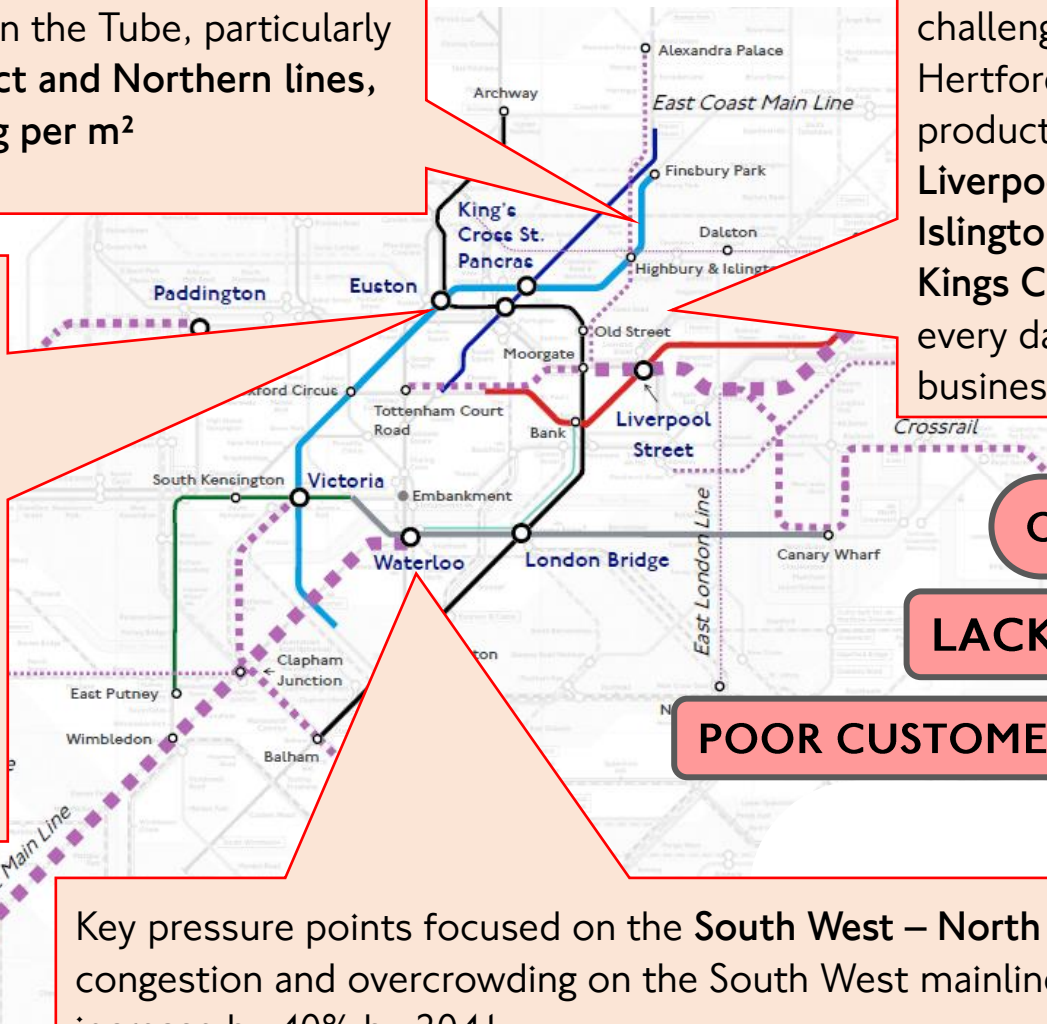
by 2031 – a 14% increase
from 2016 and equivalent to
adding the population of
Oxford during this time

...putting ever greater pressure on our transport network

Significant congestion on the Tube, particularly Victoria, Jubilee, District and Northern lines, with 5+ people standing per m²

London's transport challenges will affect Hertfordshire and damage productivity. Finsbury Park, Liverpool Street, Highbury & Islington, Stratford and Kings Cross St Pancras used every day by Herts businesses and commuters

HS2 will increase the number of passengers using Euston Tube station daily from 60,000 to 120,000 by 2041, making onward travel difficult.



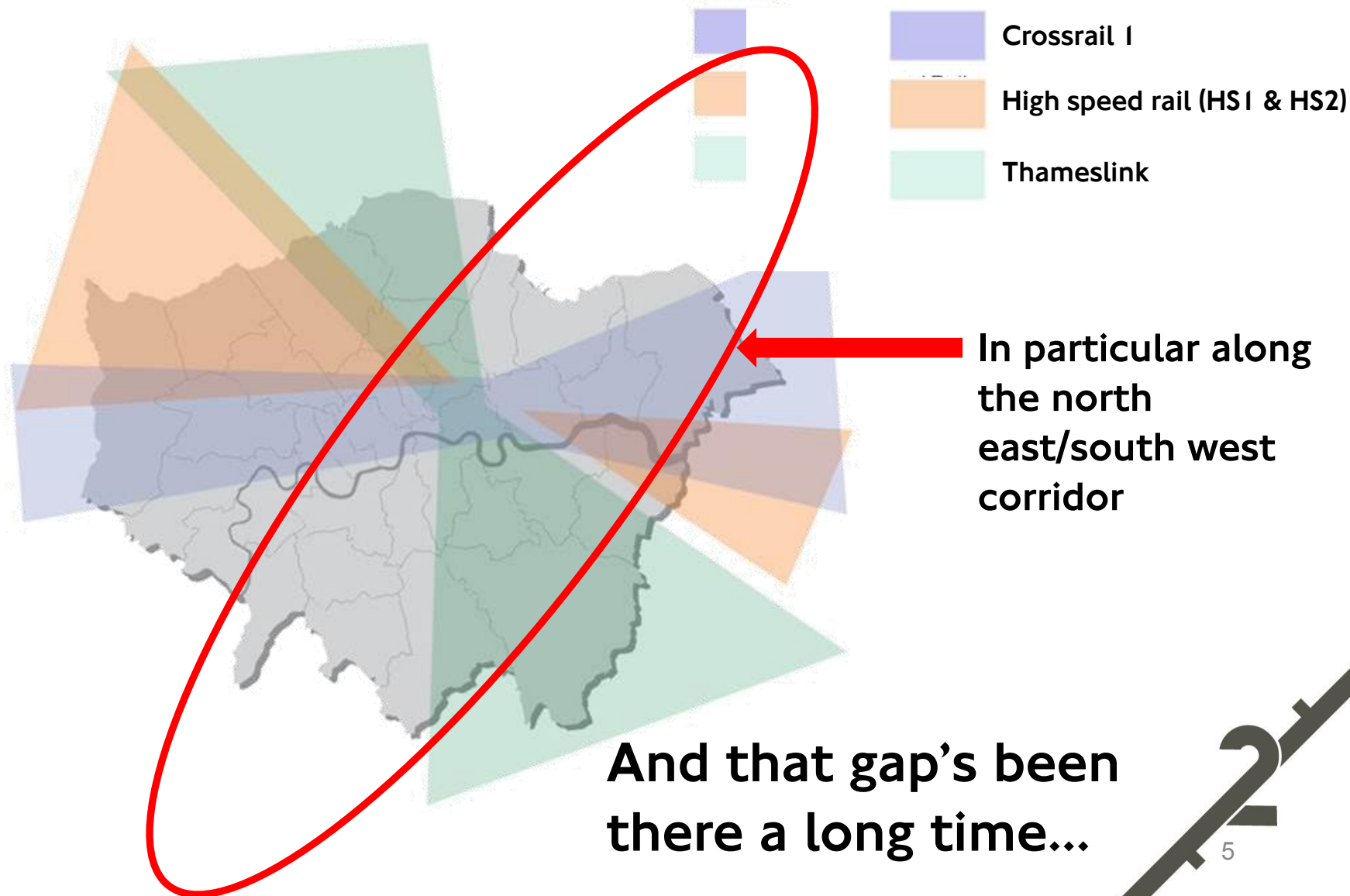
OVERCROWDING

LACK OF CAPACITY

POOR CUSTOMER EXPERIENCE

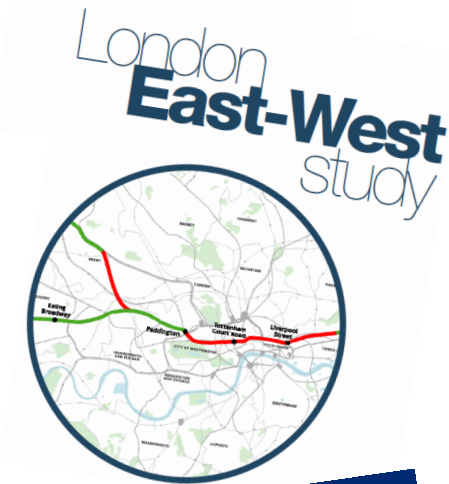
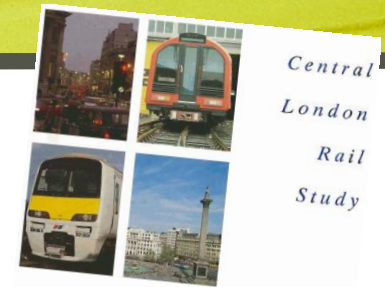
Key pressure points focused on the South West – North East axis. Significant congestion and overcrowding on the South West mainline, where demand will increase by 40% by 2041.

Despite investment in more capacity, there is still a big gap – where we need Crossrail 2



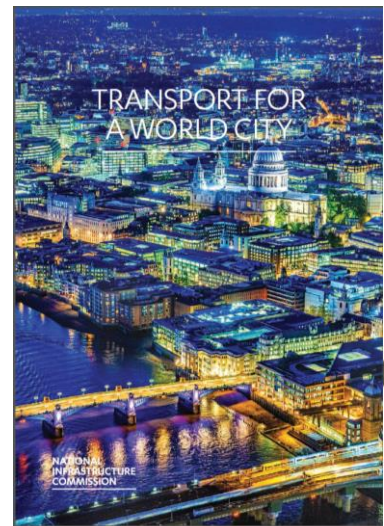
The development of Crossrail 2

Year	Output	Outcome
1974	London Rail Study	Chelsea-Hackney Underground line identified as possible scheme to serve future demand
1989	Central London Rail Study	Continued support for Chelsea-Hackney line as part of wider need for additional London rail capacity.
1991	Safeguarding	Chelsea-Hackney line adopted; safeguarding directions issued.
2000	London East-West study	Recommended further study to look into feasibility of Chelsea-Hackney line after Crossrail.
2000-2006	Limited work	Limited ongoing engineering feasibility, planning and optioneering work on Chelsea-Hackney line Main focus was on Crossrail 1.
2007 – 2011	Long list option appraisal	Extensive optioneering; long list to short list MTS analysis
2011 – 2013	Metro vs regional options	Decision to proceed with Crossrail 2 regional option after strong endorsement in consultation


















The development of Crossrail 2 cont'd

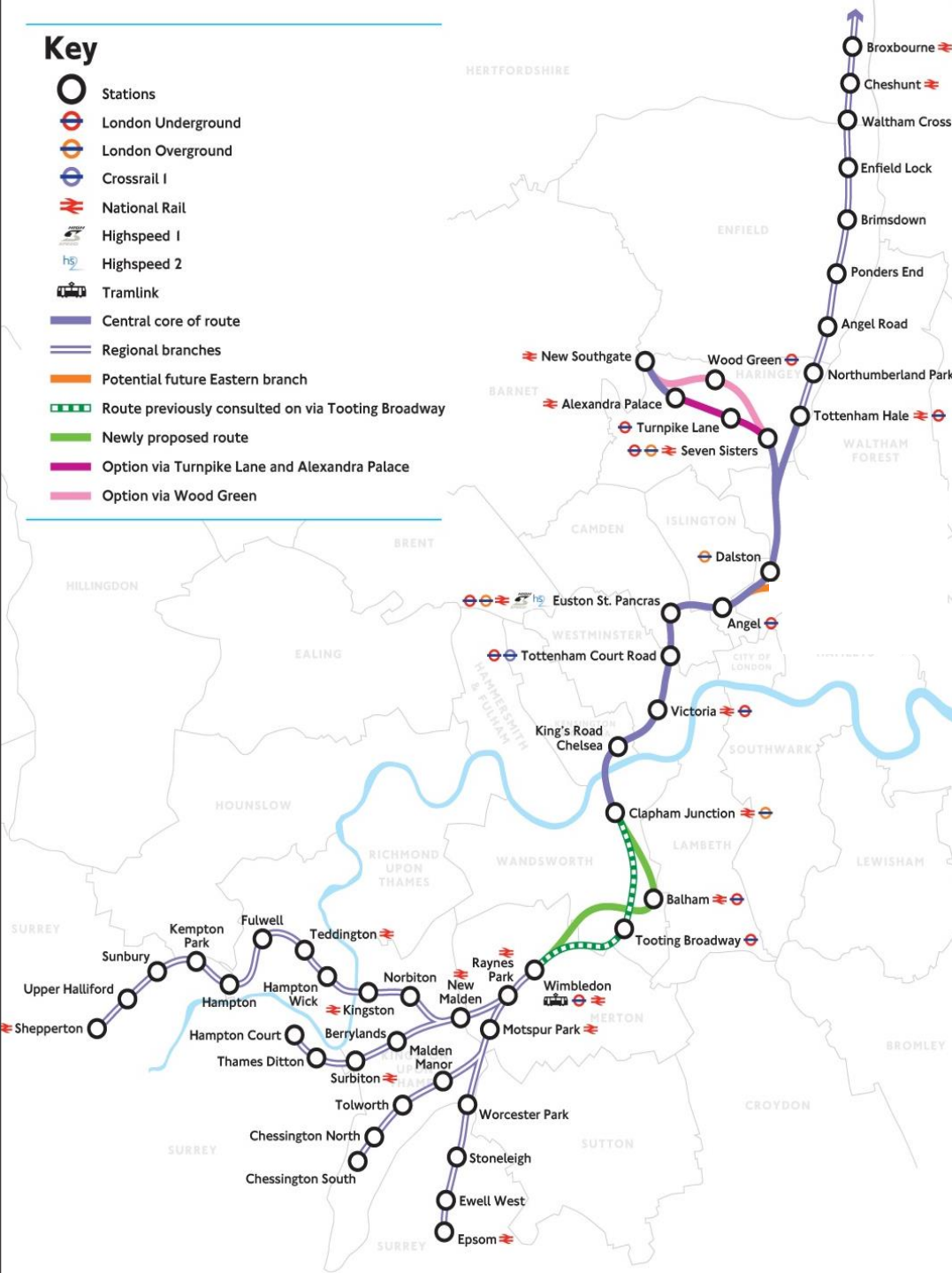
- 2014: First business case submitted to Department for Transport
- 2015: Full Strategic Outline Business Case (SOBC) submitted to DfT; National Infrastructure Commission set up with remit to review it
- 2015-16: Largest public consultation to date on Crossrail 2, attracting more than 21,000 responses
- 2016: NIC publishes its first report, Transport for a World City. It recommended that “Crossrail 2 should be taken forward as a priority” but said “every opportunity should be taken to improve its affordability.”
- 2017: Revised SOBC submitted to DfT, taking into account NIC recommendations.



Crossrail 2

Key

-  Stations
-  London Underground
-  London Overground
-  Crossrail I
-  National Rail
-  Highspeed 1
-  Highspeed 2
-  TramLink
-  Central core of route
-  Regional branches
-  Potential future Eastern branch
-  Route previously consulted on via Tooting Broadway
-  Newly proposed route
-  Option via Turnpike Lane and Alexandra Palace
-  Option via Wood Green



A proposed new railway serving London and the wider South East

£29.2 bn
cost

30
trains/hour

7 shafts

45 stations

100kph
line speed

Step-free
access

Up to £150bn
added to GDP

70km
of tunnels

270,000 additional
passengers in morning peak

Crossrail 2 meets the transport challenges



CONNECTIVITY

- Access to global employment centres
- Serve some of the most deprived parts of the UK
- Connectivity will be a catalyst for regeneration and new housebuilding
- All stations made step-free along the entire route



JOURNEY EXPERIENCE

- Remove need to interchange = quicker journeys
- Eliminate the need for station control to control crowding at most stations
- Cut crowding on the Tube and rail services by 20-30%



CAPACITY

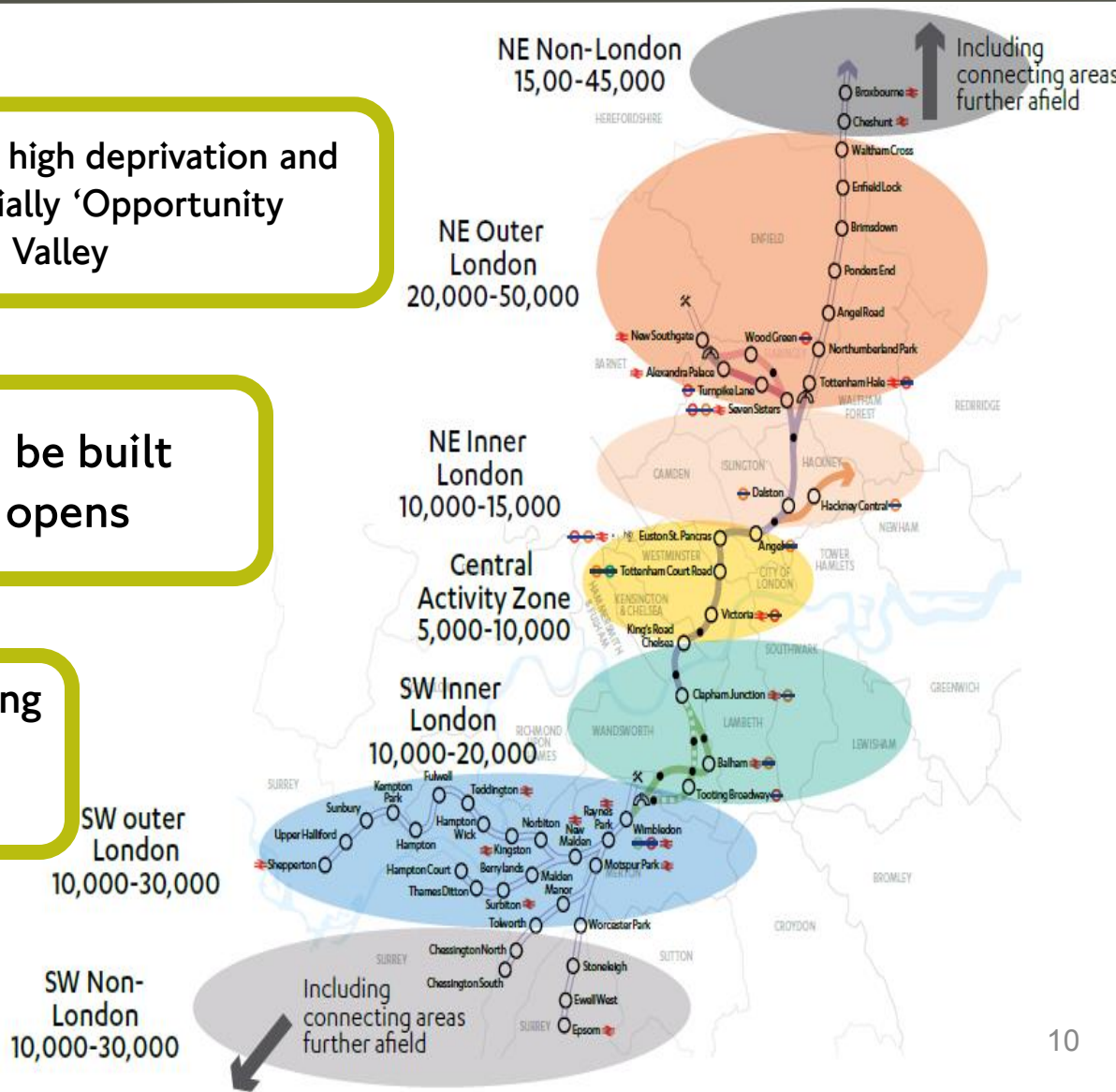
- Add 10% to London's rail capacity
- Add 40% capacity to the South West Main Line allowing more frequent long-distance services
- Add 15% capacity to West Anglia Main Line services
- Interchange capacity at Euston to support HS2

Crossrail 2 would help tackle the South East's housing crisis, unlocking 200,000 new homes

Crossrail 2 would go through areas of high deprivation and high development potential especially 'Opportunity Areas' in the Upper Lea Valley

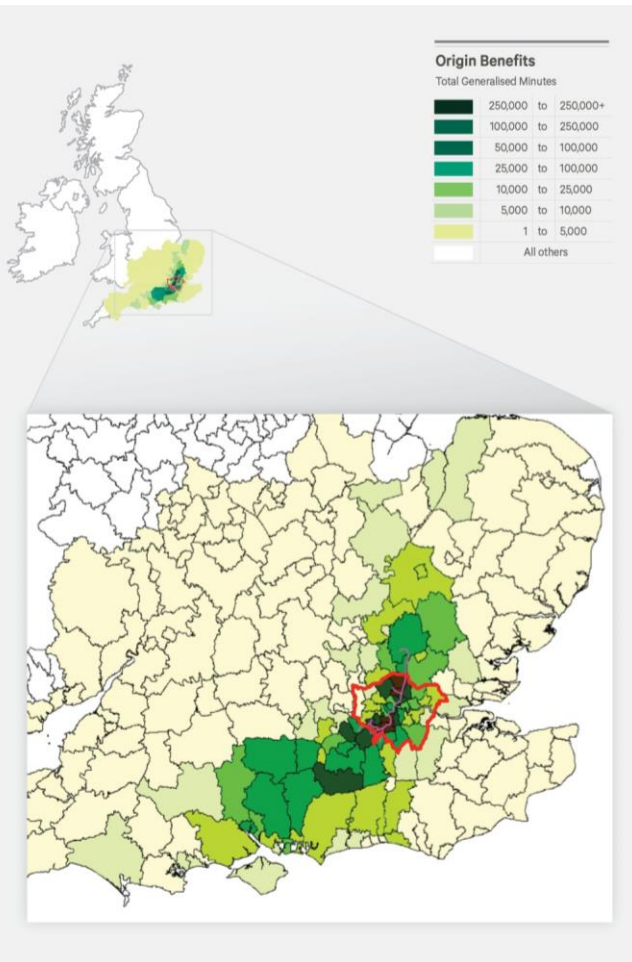
1/4 of new homes could be built before Crossrail 2 opens

30% of Crossrail 2's housing benefits would be outside London



A nationally significant project

- Crossrail 2 is vital not just for London.



**c.£150 billion
boost to the UK economy**



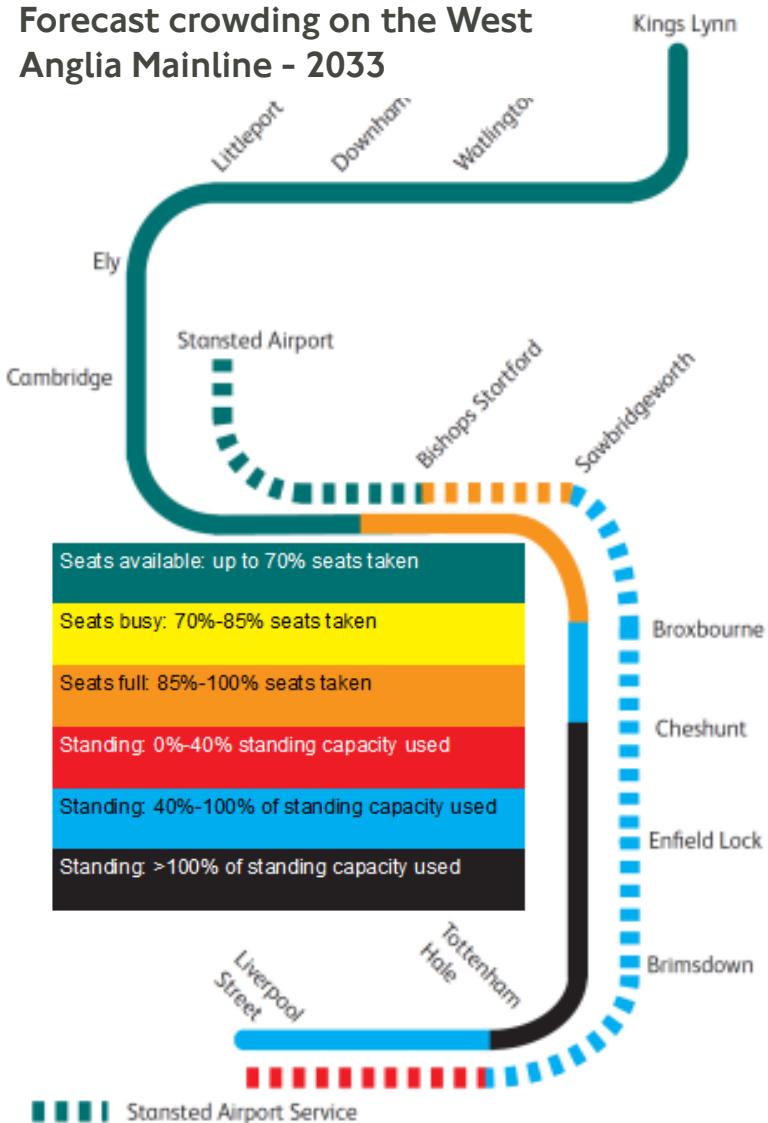
**NATIONAL
INFRASTRUCTURE
COMMISSION**

Support

60,000
jobs nationally

Crossrail 2 and the West Anglia Main Line

Forecast crowding on the West Anglia Mainline - 2033



Network Rail forecast demand on WAML will increase by 40% to 2043

Crossrail has worked closely with the West Anglia Taskforce. But four-tracking alone will not fix the WAML's capacity problems: Crossrail 2 has to be an integral part of the upgrade. It would:

- allow extra trains in the “Innovation Corridor” to Bishops Stortford, Stansted and Harlow, and more than doubling the number of trains to Broxbourne – 20/hr, up from 8 today.
- Reduce delays between Broxbourne and Tottenham Hale by 50%

And benefit Herts businesses and commuters accessing global opportunities

Crossrail 2 will

- **Unlock journey time reductions and reliability improvements to all services in the WAML corridor - including to and from Cambridge and Stansted**
- **Significantly reduce the risk of daily morning peak period London Underground station closures at Liverpool St**
- **Four-tracking of the WAML, delivered by Crossrail 2, would have additional opportunities for services throughout the corridor in the event of further complimentary network investment,**



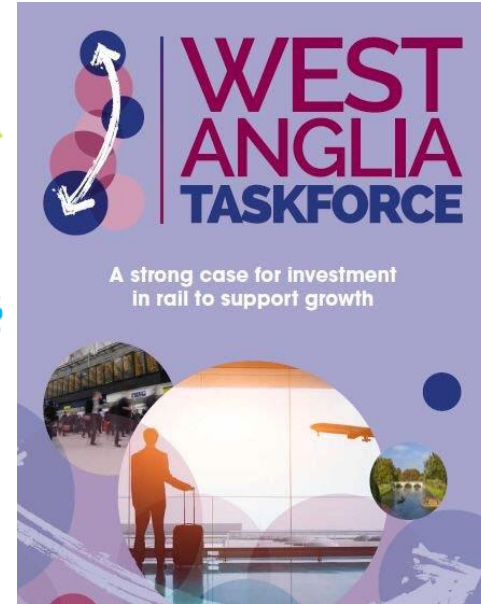
Crossrail 2 would also supercharge growth in the East of England more widely

Crossrail 2 and four-tracking would lead to...

Faster journeys

More frequent services

Improved reliability



Which, in conjunction with Local improvements

including

Improved step-free access



New homes

Unlocks up to 100,000 new homes across the WAML corridor



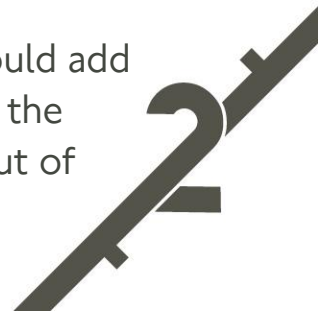
New jobs

Unlocks up to 45,000 new jobs across the corridor

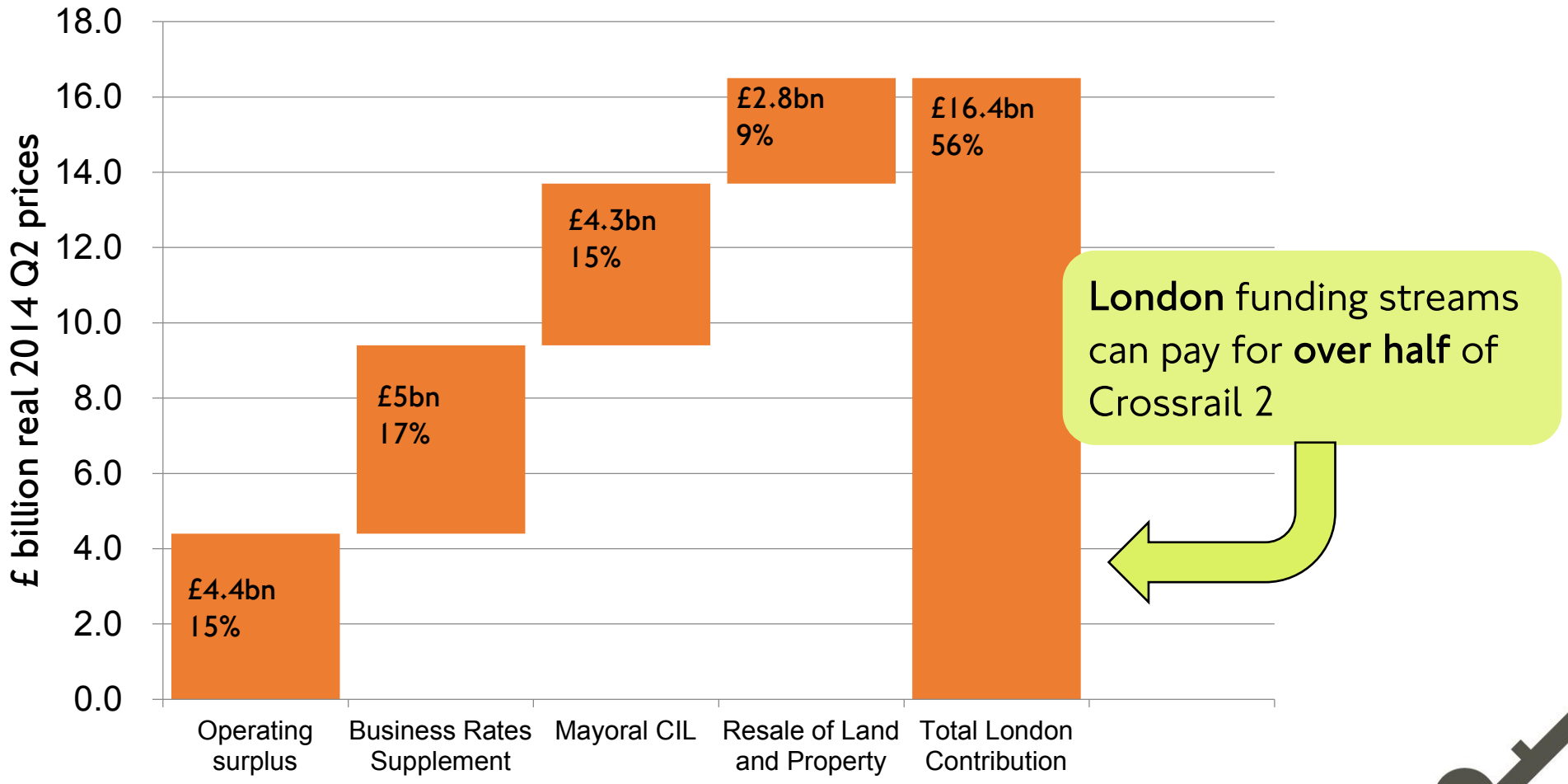


Economic benefits

Preliminary analysis from the West Anglia Taskforce suggests Crossrail 2 could add an additional £15bn to the annual economic output of the West Anglia region

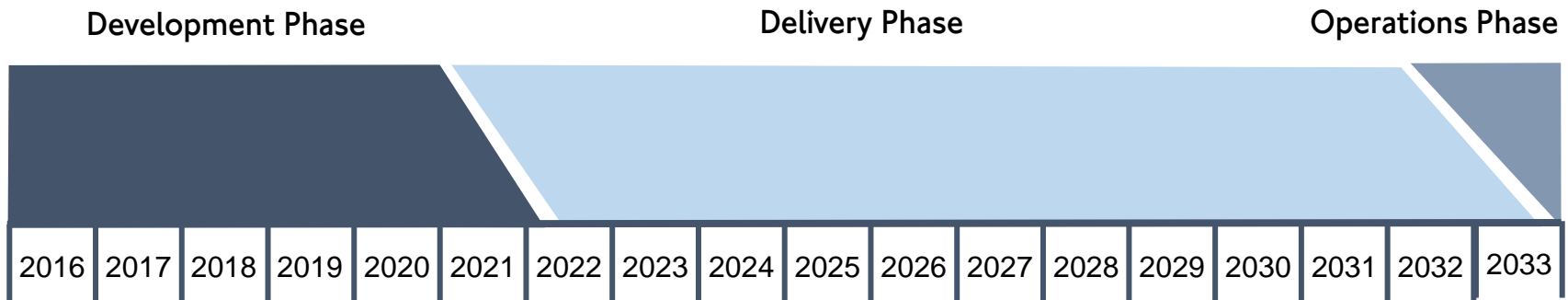


Paying for Crossrail 2: in 2017 we showed how London can pay for over half the cost



But we have to pay more up front, and we must look at ways to make the scheme more affordable – a huge challenge

Timeline to delivery: 2017



- 2017-2020: Develop scheme design and prepare Hybrid Bill
- 2020: Submit Hybrid Bill
- Early 2020's: Begin construction
- Early 2030's: Crossrail 2 operational

Since 2017 SOBC submission...

- March 2017: Revised SOBC submitted to DfT
- May 2017: Snap General Election called, delaying decisions
- Summer/Autumn 2017: Programme of value management undertaken to make the scheme more affordable
- End of 2017: Work presented to Mayor and SoS. Agreement to the formation of an Independent Affordability Review to look at scheme further.
- Spring - Autumn 2018: Independent Affordability Review (IAR)
- Autumn 2018: Crossrail delay announced
- 2019: Work to revise SOBC, taking into account findings of the IAR
- Summer 2019: Revised SOBC submitted to DfT



The biggest challenge: affordability

The biggest challenge was making Crossrail 2 more affordable to the public purse. This came into focus even further following the Crossrail announcement last year. To do this we looked at:

Reducing costs through:

- Value management: phasing or staging to spread the cost over longer
- Value engineering: identifying cost savings in how we build the project.

Raising more funds by:

- Raising more from those who will benefit
- Boosting gain from development and OSD
- **Involving the private sector**
 - Private sector borrowing
 - Private sector building parts

But scope limited by the amount of risk and the relatively small market capacity for private finance.



Independent Affordability Review

The Secretary of State and Mayor commissioned an Independent Affordability Review (IAR), chaired by former Thames Tideway MD, Mike Gerrard.

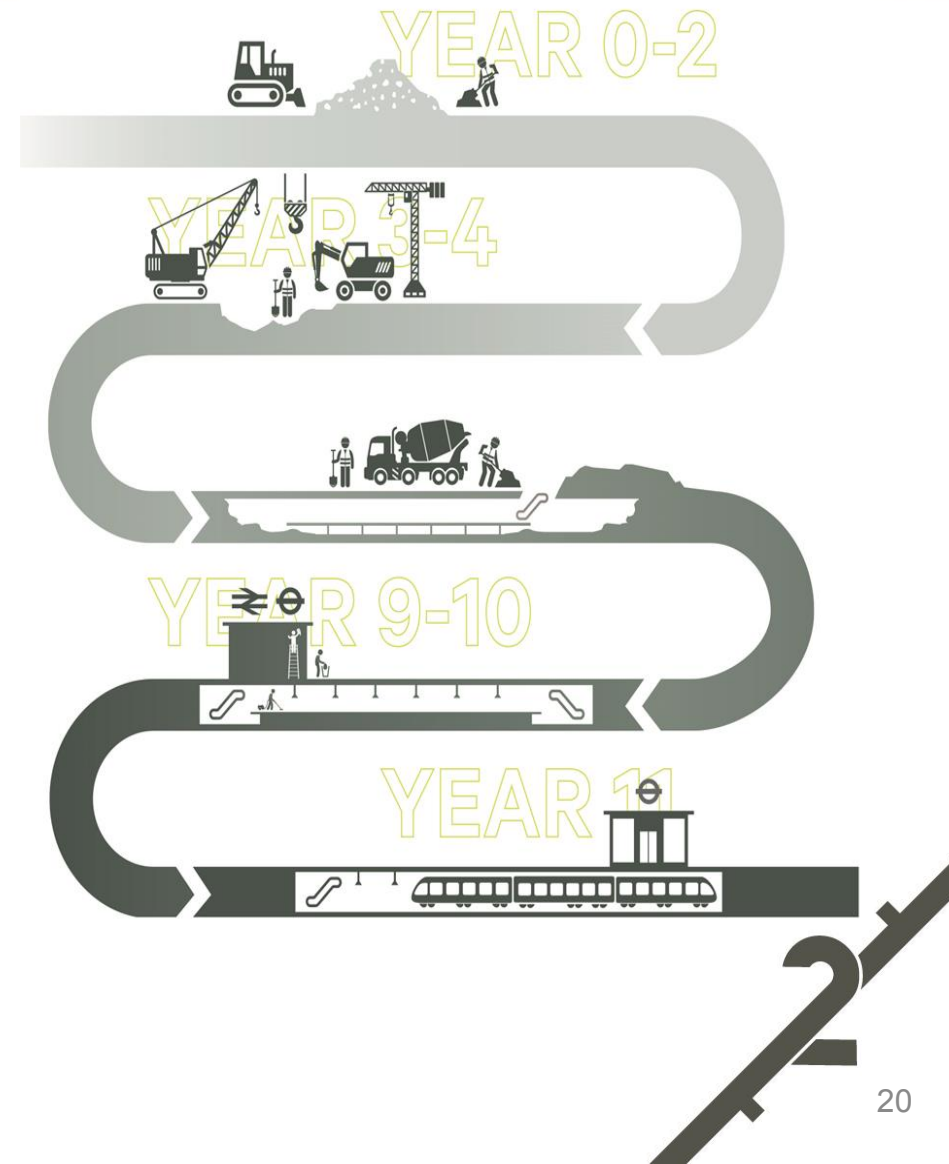
The Review had sub-panels devoted to Cost and Risk; Funding; and Finance. With technical support from TfL, Network Rail and the DfT, the sub-panels scrutinised all aspects of these areas with a view to reducing costs and making the scheme more affordable.

The IAR delivered an interim report last summer. Its recommendations are being reflected in further work on a revised SOBC. A key recommendation was for phased delivery of the scheme.



Next Steps

- Affordability further affected by Crossrail
- Many lessons learnt from Crossrail
- Reflect work of IAR and the impact of Crossrail into updated 2019 SOBC (strategic case, economic case, financial case management case, commercial case)
- Updated SOBC submitted to DfT for consideration as part of the spending review ask
- Safeguard the scheme





Thank You

MAYOR OF LONDON



TRANSPORT
FOR LONDON