

Crossrail 2

Connecting homes, jobs and opportunities



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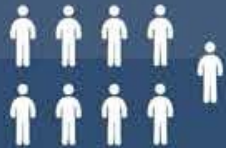
Four Fundamental Challenges



Population growth

London is growing by...

9 new residents
every hour



That's a car load
every 26 minutes



or

2 Buses
every day



or

2 Tube trains
every week



Today the population is

8,600,000

and by 2030, it will be

c.10,000,000

Population growth is creating transport challenges

- Despite major investment already underway, growth is putting pressure on the transport network and could stall long-term economic growth
- Demand for National Rail services into Waterloo is set to increase by 40 per cent between today and 2043, and by a similar level across the Tube network



- Severe crowding on the London and South East rail network could double by 2041. The problem will continue to be particularly severe in the morning peak



The population over 65 will be 68% higher by 2041 bringing rising demand for accessible services. Accessibility will be compromised by rising crowding.

Improvements on National Rail lines alone will increase pressure at key stations (e.g. Waterloo)

- The effects of a potential south-west mainline network rail alternative will increase levels of crowding at Waterloo, where pressures are already significant

Demand at Waterloo, 2031, 'national rail alternative'



Population growth is also creating housing challenges - London and the South East face a housing shortage

- Too few homes are being built across the South East – target is building 49,000 new homes a year but delivery has been around half of this
- Land for additional 500,000 homes needs to be identified
- Improving transport links and access to key opportunity and intensification areas improves the viability of development



Housing development in Woolwich, unlocked by Crossrail



We have a UK productivity challenge

- The UK produces significantly less per hour worked than our main economic rivals. If we do not address this, national economic growth could stall and improvements to living standards could be held back
- Cities offer a solution to this productivity challenge because they cluster activity together, improving efficiency
- To do this and grow the economy, cities need access to a large workforce
- Around 80% of those who work in London's hyper-productive Central Activities Zone travel by rail-based modes



1. The Challenges facing London and the South East

2. Why Crossrail 2 is an essential response to these challenges

3. Crossrail 2: from development to delivery – the next steps

Crossrail 2 – part of the solution

Crossrail 2 is a proposed new railway line serving London and the wider South East

- Over 70km of tunnel
- 30 trains per hour
- Capacity for 270,000 people in peak period
- Open in the early 2030s
- Joint TfL/Network Rail project – once operational will be fully integrated into existing network (fares, passenger information, maps etc)



A brief history 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 a Chelsea-Hackney line as part of wider need for additional rail capacity in London (also proposed Jubilee Line Extension and East-West Crossrail). Work was started by London Transport and British Rail to develop these schemes.
1991	Safeguarding	Chelsea-Hackney line adopted; safeguarding directions issued.
2000	London East-West study	Recommended further joint study to look into feasibility of Chelsea-Hackney line to be delivered post-Crossrail.
2002-2008	Continued investigation	Limited ongoing engineering feasibility, planning and optioneering work on Chelsea-Hackney line Main focus was on Crossrail 1.

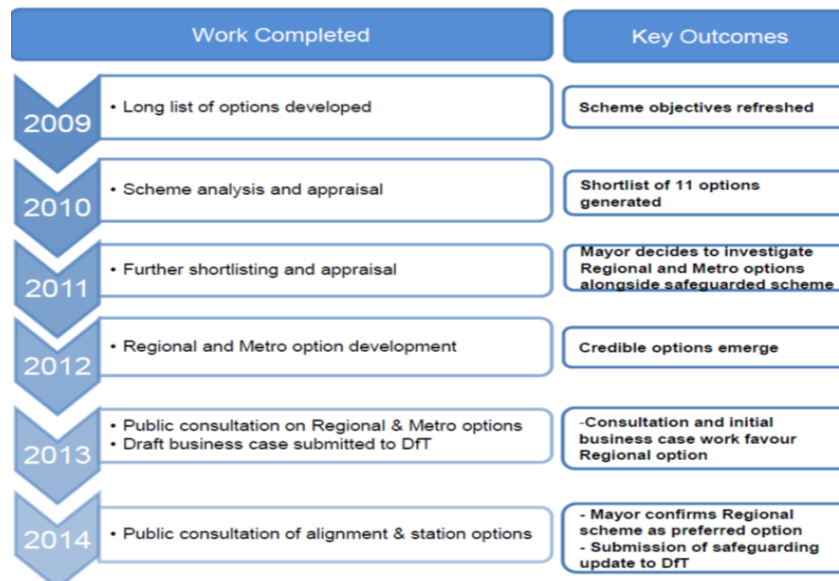
A Chelsea-Hackney line was safeguarded for the first time in 1991, linking Wimbledon in the south with Essex in the North

Crossrail 2 was first identified in 1974.



2008 Safeguarding

- The original proposal for the Chelsea-Hackney line was updated in 2008 to reflect new proposals for the Olympic development in Stratford
- In 2009, the Department for Transport (DfT) asked TfL to review the new alignment and suggest any alternative destinations for the proposed rail link between North-South London
- Within the next 5 years, TfL conducted a thorough review of the proposed route including several rounds of further public consultation



How will Crossrail 2 help address the transport challenge ?

- Transform travel across London and the wider South East by relieving severe congestion on Tube and National Rail lines and providing a step change in connectivity
- Provide new rail capacity for 270,000 people to access central London during peak periods, helping relieve crowding and congestion on the transport network
- Significantly improve step-free access across the rail network
- Significant journey time benefits for a wide range of journeys



Network-wide crowding relief provided by

Crossrail 2

(AM peak hour, typical weekday)

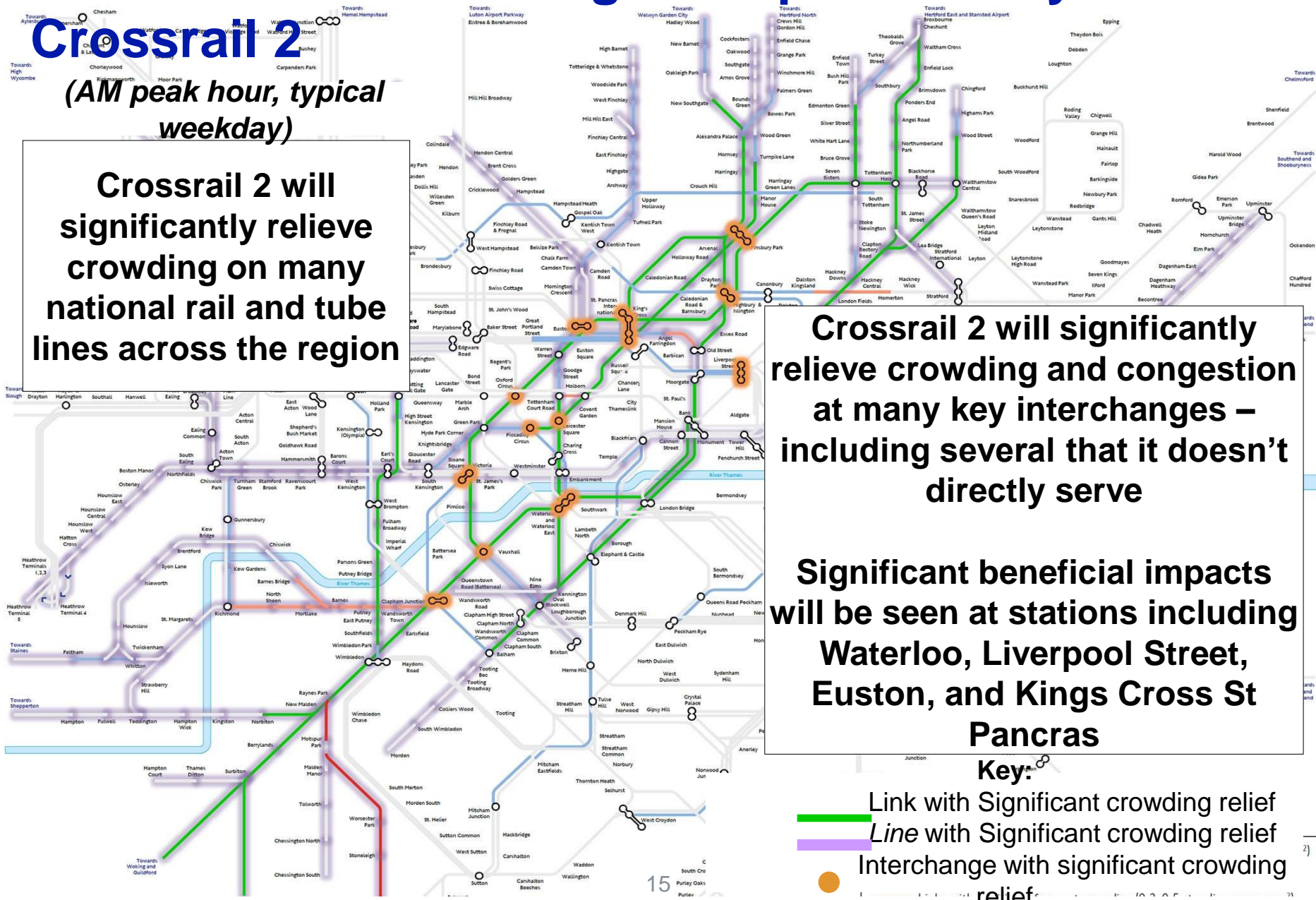
Crossrail 2 will significantly relieve crowding on many national rail and tube lines across the region

Crossrail 2 will significantly relieve crowding and congestion at many key interchanges – including several that it doesn't directly serve

Significant beneficial impacts will be seen at stations including Waterloo, Liverpool Street, Euston, and Kings Cross St Pancras

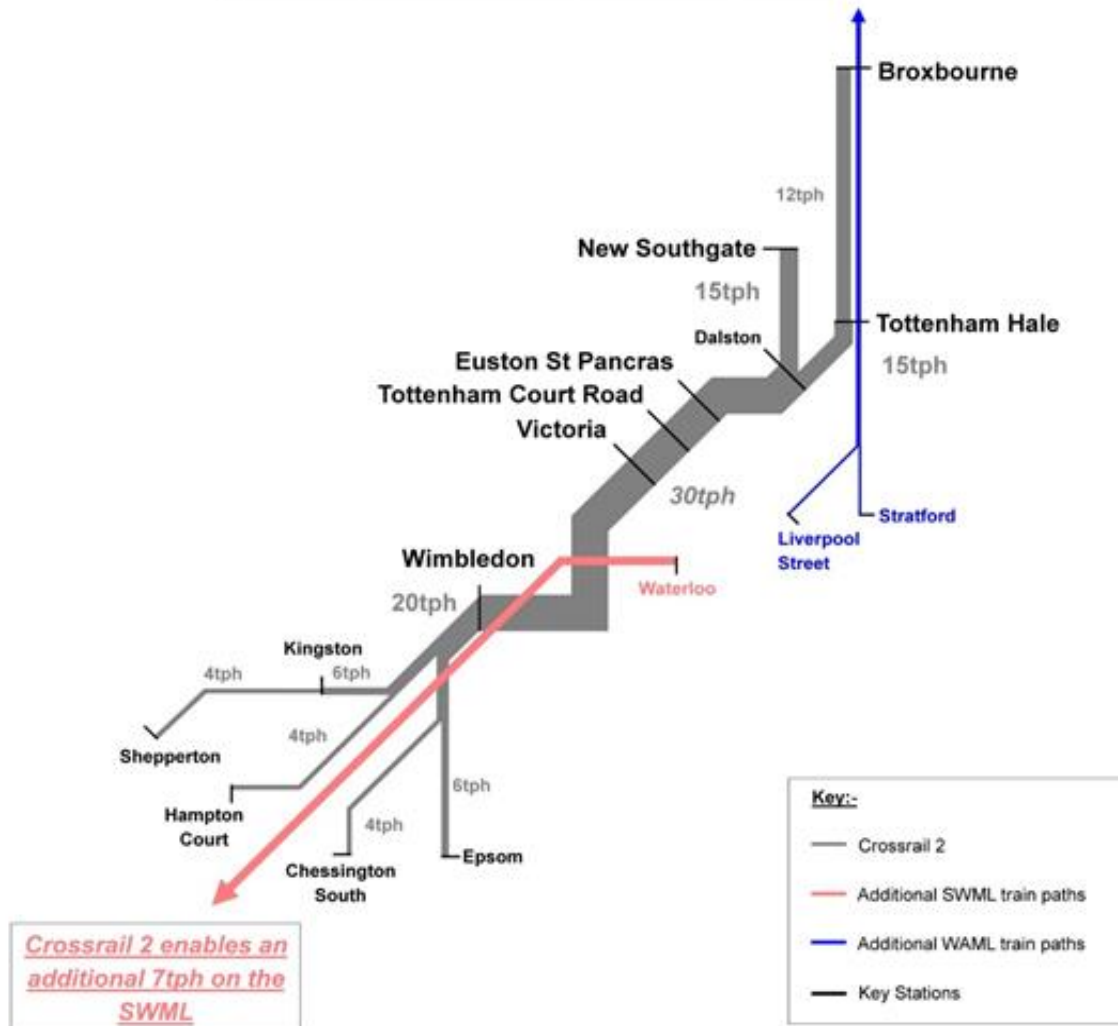
Key:

- Link with Significant crowding relief
- Line with Significant crowding relief
- Interchange with significant crowding relief

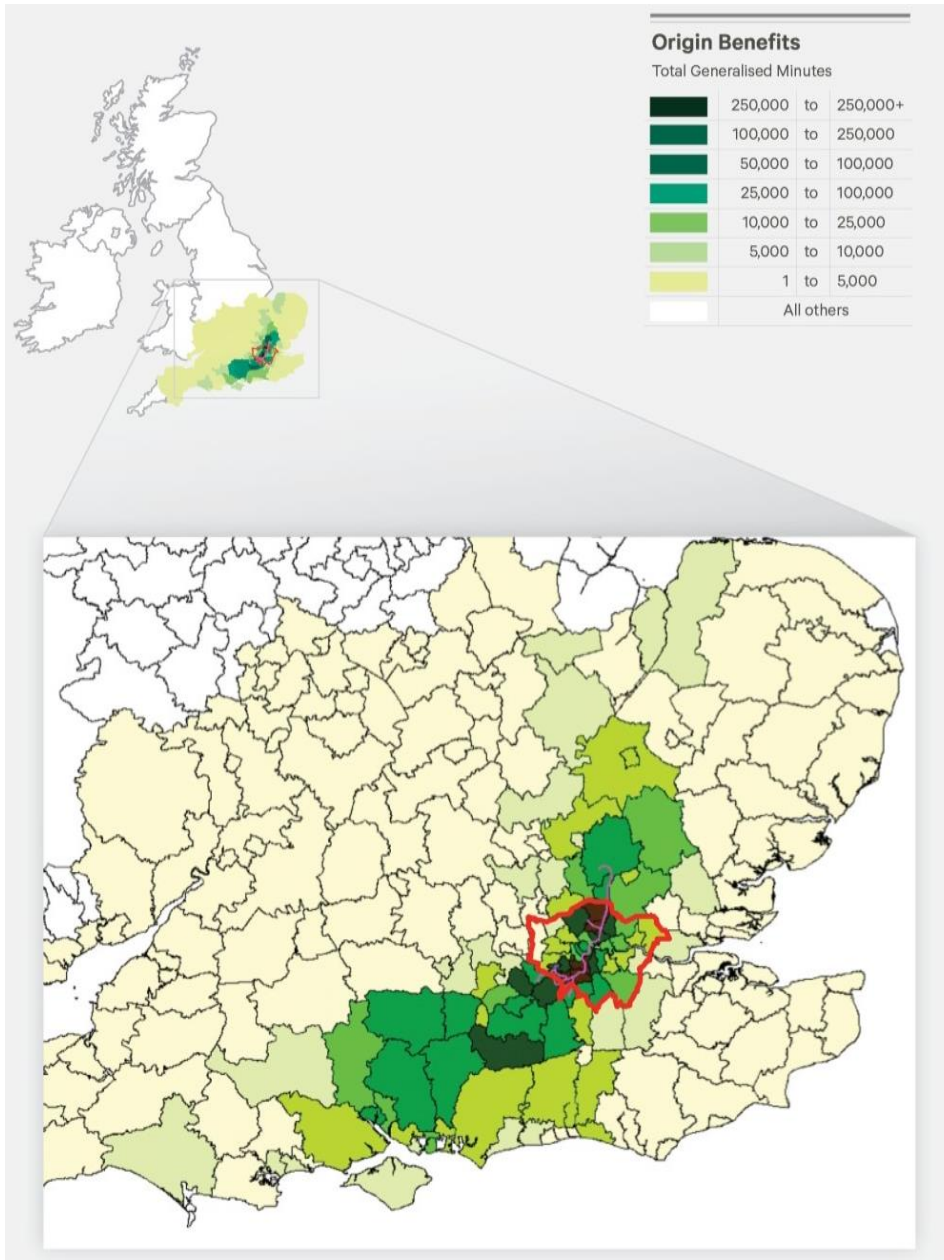


Proposed Crossrail 2 services and benefits to national rail network

Crossrail 2 enabled AM Peak additional services (trains per hour in peak direction)



These benefits will be felt across the wider South



Crossrail 2 would free up space on the National Rail network, meaning there could be more trains from destinations across the region. Cities like Basingstoke, Cambridge, Portsmouth and Southampton would all benefit

This would benefit places from the Solent to the Wash.

Crossrail 2 will help address the housing challenge

- Improving transport links to under-developed areas to make sites more attractive to developers
- Crossrail 2 would unlock land for new development, enabling up to 200,000 additional new homes to be built with a Crossrail 2 led growth strategy in place



Crossrail 2 will help address the productivity challenge

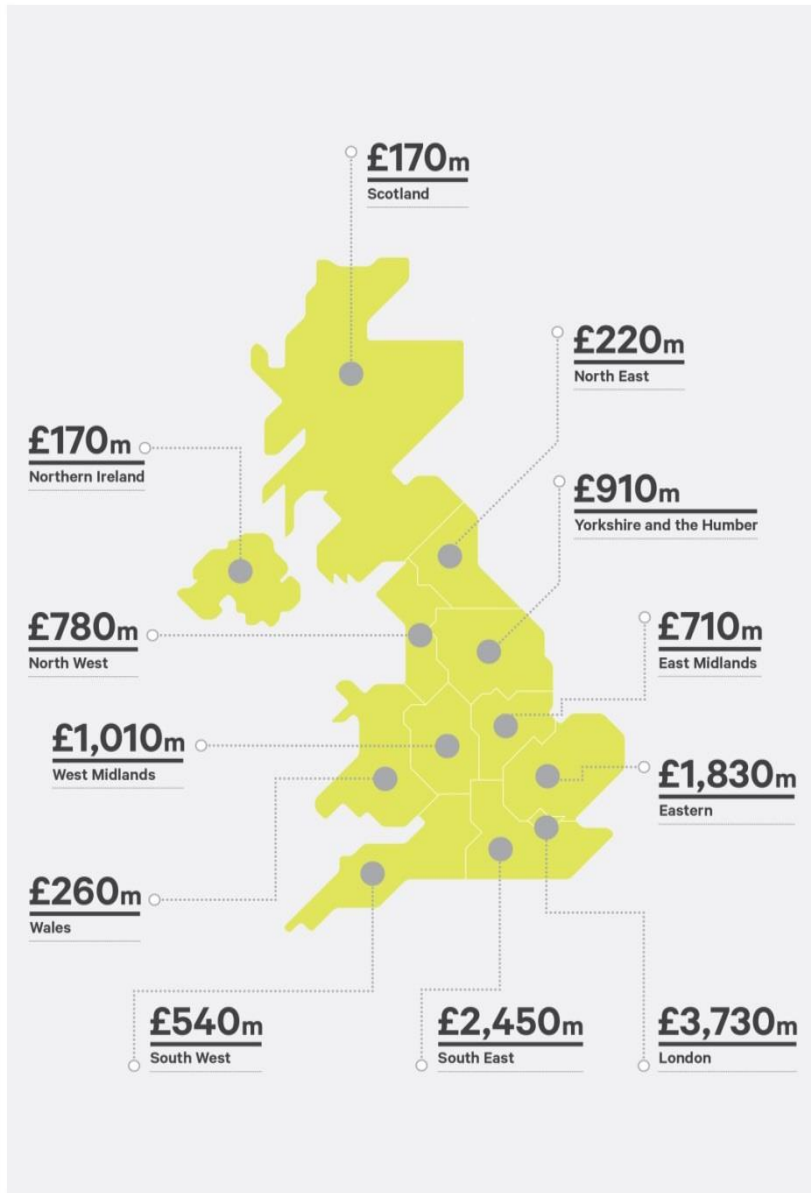
- Enabling the development of up to 200,000 new homes so that people can find places to live
- Supports up to 200,000 new jobs in London and the wider South East
- Supports 60,000+ construction sector and supply chain jobs across the UK



Analysis by KPMG shows that it could add up to **£102bn** to the UK's GVA, providing new tax revenues that would payback the Government's investment



Crossrail 2 will deliver economic benefits across the UK



- Crossrail 2's supply chain would stretch around the UK
- Support 60,000 jobs around the country
- SMEs could benefit from more than £5bn spend
- Would support hundreds of apprenticeships

1. The Challenges facing London and the South East

2. Why Crossrail 2 is an essential response to these challenges

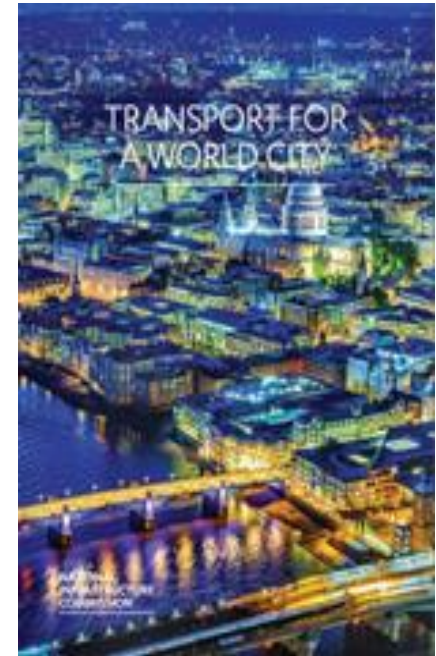
3. Crossrail 2: next steps in going from development to delivery

Recognised by Government

- In March, the National Infrastructure Commission (NIC) identified the project as a priority for London and the wider South East
- This was endorsed by Government and the Chancellor subsequently announced £80m at Budget – which we will match - to fund the development phase ahead of submitting a Bill in this Parliament



- The project is recognised as a priority by the new Mayor – he pledged to ‘Get Crossrail 2 off the ground’
- Lord Adonis proposed as chair of Crossrail 2



National Infrastructure
Commission



Shaped with public input

There have been 4 major public consultations on the scheme to date

- May to August 2013: Metro vs regional scheme
- June to July 2014: Specific route options
- December 2014 to January 2015: DfT safeguarding consultation
 - Statutory process to protect land required for major new infrastructure projects from future development
- October 2015 – January 2016: High level scheme information
 - Provide the public more detail about our preferred route along with high-level information about:
 - station locations
 - vent shaft locations
 - proposed worksites across the route

Most recent public consultation

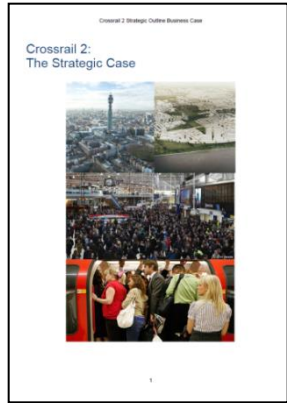
- Joint TfL / Network Rail consultation received just under 21,000 responses.
- Over 80 pre-engagement meetings and events with boroughs, county councils, community and business groups and other key stakeholders
- Over 12,000 people attended 72 drop-in events at 40 locations along the proposed route
- Publicised online, through social media, press, marketing campaign, letter drops and newsletters.



Crossrail 2 is to be taken forward as a priority with Hybrid Bill submission in 2019, subject to...

...Business case

- Revised TfL/DfT business case by March 2017, to include developed plans on costs, funding, housing and stations
- *DfT also expect an assessment of **strategic alternatives***

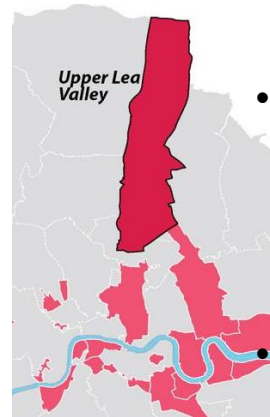


...Funding

- London must contribute “**more than half**” the cost
- Explore **new funding options**, incl further devolution
- Maximise private sector involvement in stations and surrounding areas.
- Funding agreement in principle required pre Hybrid bill submission

...Affordability

- Strong case for **delaying the New Southgate branch**
Examine costs and benefits of **individual stations** (incl King's Rd)
- *Govt response: Updated business case to include detailed options to reduce the £31bn cost by **at least £4bn***



...Housing

- TfL to set out a transformative plan to **deliver 200,000 homes** ... this could include **MDCs** and revised route-wide planning guidance
- CR2 should be **at the heart of new London Plan**
- Agreement on housing measures required pre hybrid bill submission

Crossrail 2 Interchange and Access

- **Since the last consultation, we've been looking closely at improving Crossrail 2's interchange and access. Crossrail 2 is designed to:**
 - Provide step-free access from street to Crossrail 2 platforms and to have level boarding available in the Central section stations.
 - For paid-side interchanges, provide step-free access from Crossrail 2 platforms and other rail services platforms
 - Step Free Access between existing lines or from existing lines to street is not expected to be provided by Crossrail 2
 - Cross platform-interchanges at stations along the South West section of the railway



Crossrail 2 Interchange and Access

- We are working to develop and apply common principles for access and interchange across the scheme. We looked at Cross Platform Interchange...
 - We carried out a review of the possible options for cross platform interchange along the route. It would be an enormous engineering challenge given the alignment, expensive and disruptive to build likely involving significant line closures.
 - A London Underground review gathered empirical evidence demonstrating that, although passenger friendly, cross platform interchange should be avoided. This is to improve station resilience and limit the need for station control measures.
 - As such, cross platform interchange with existing LU/LO services is not set as a requirement for Crossrail 2.
- Instead, we are developing shorter and more efficient interchanges on a case by case basis and specified moving walkways at stations where the interchange is longer than 75m

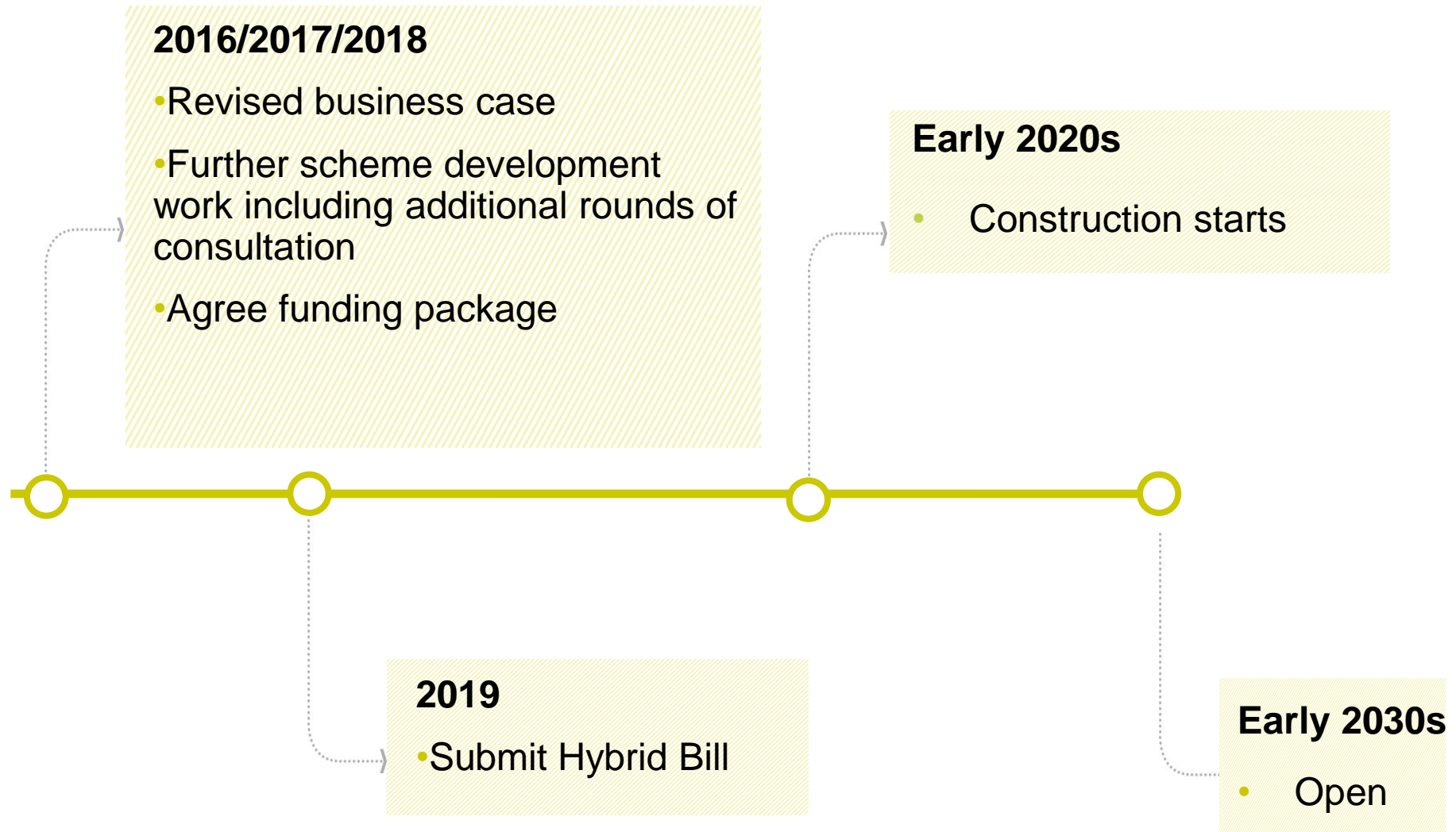
Station	2014/15 Baseline	2016 Baseline
Euston (CR2-NR)	430m	238m
Euston (CR2-HS2)	487m	277m
Balham (CR2-NR)	365m	255m
Seven Sisters (CR2 -South Tottenham LO)	135m via overbridge (paid link)	60m via pedestrian crossing (unpaid link)

South West Trains

Network Rail are currently in communication with the Department for Transport (DfT) and potential bidders for the South West Trains franchise, following the news that Incumbent Stagecoach South West Ltd and FirstGroup's First South Western Trains Ltd were shortlisted earlier this year.



Longer term next steps for Crossrail 2





Thank you



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