

Phase 2b information event
WELCOME

Welcome to today's event.

After considering the responses to the route refinement and property consultations held in 2016/17, in July 2017 the Government confirmed:

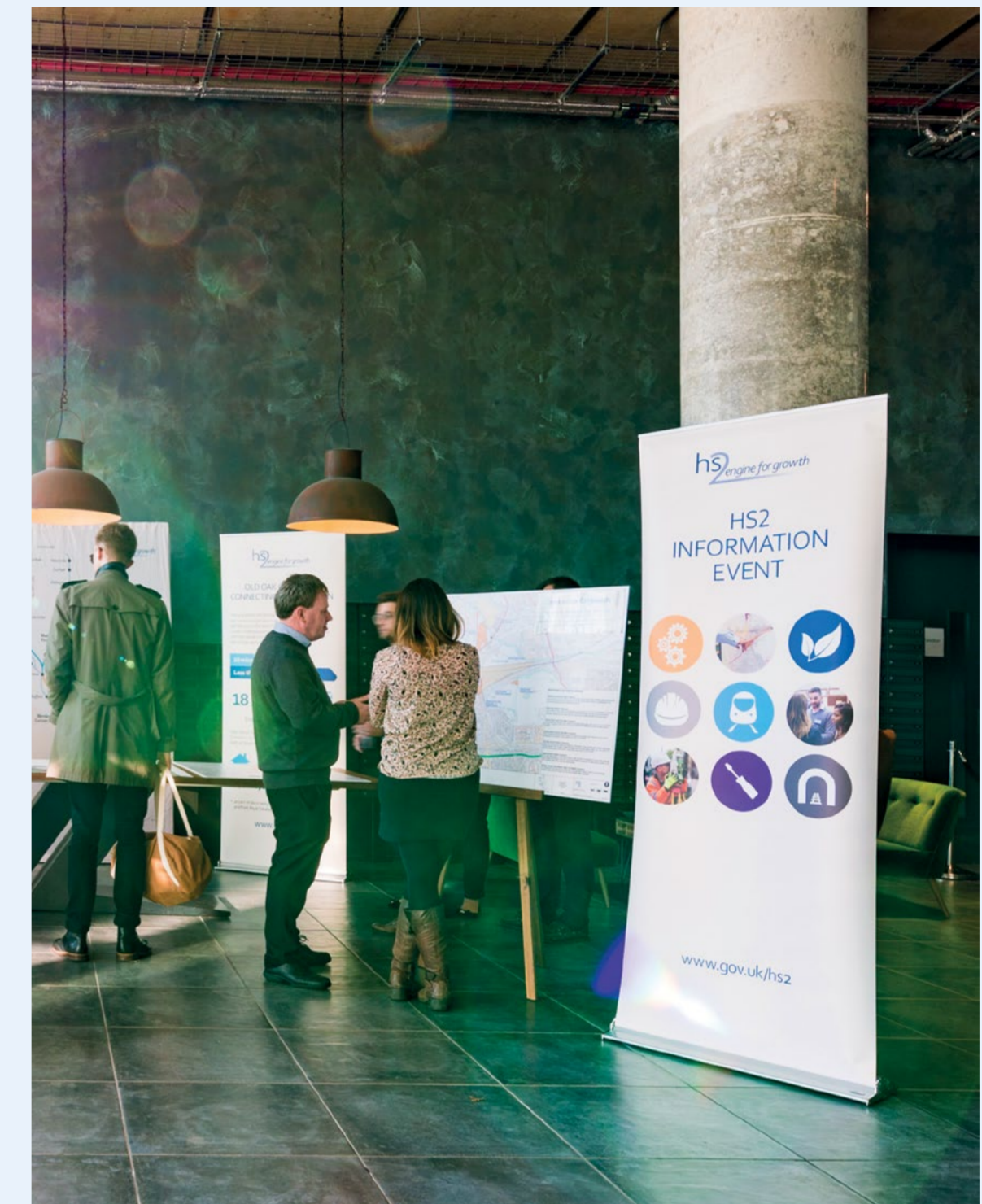
- The full route for Phase 2b of the High Speed Two railway (HS2) - from Crewe to Manchester and the West Midlands to Leeds.
- The help that's available to property owners.

There are also four new consultations on the Phase 2b route that you can also get involved in.

We're here today to:

- introduce the team
- answer your questions following the route announcement and what this might mean for you
- provide information about the new consultations
- let you know about the next stages in developing the design and environmental assessment of the Phase 2b route

If you have any questions, please ask one of our team - we'll be glad to help.

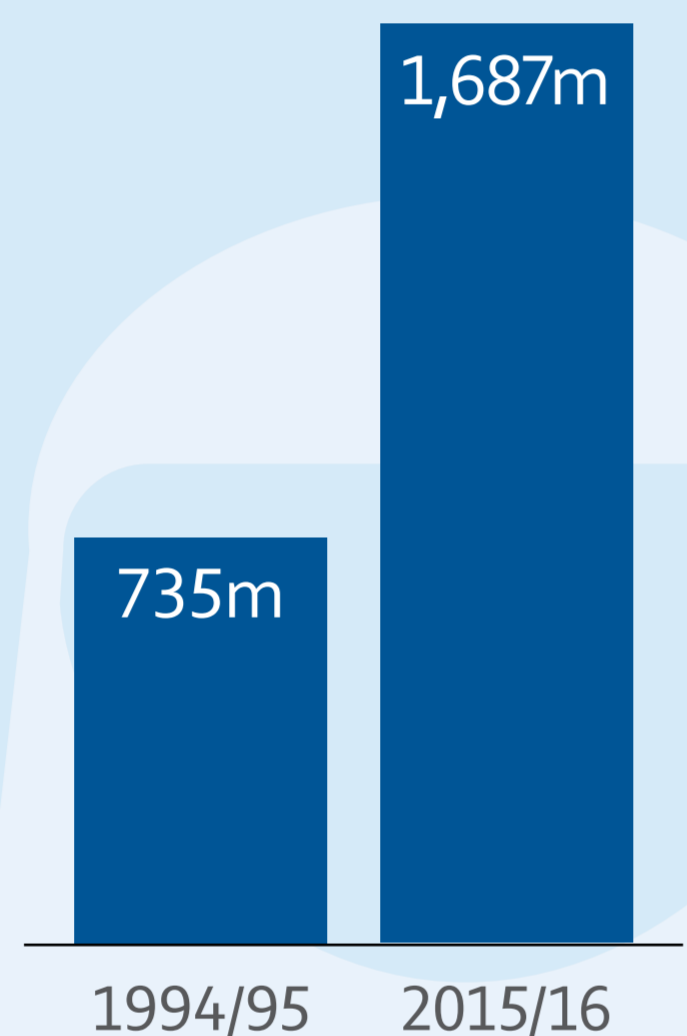


Thank you to the 20,000 people who attended our previous information events and the 9,000 who responded to the consultations. We have read and considered all of the points you raised.

www.gov.uk/hs2

Phase 2b information event
THE CASE FOR HS2

Rail passenger numbers have more than doubled in the past two decades, meaning existing services are overcrowded. Incremental upgrades are no longer enough to meet future demand.



Journeys on Britain's railways

HS2 is already delivering:

- £6.6bn in new contracts, providing opportunities for businesses across the country
- National Colleges for High Speed Rail in Birmingham and Doncaster to provide training and opportunities for the next generation

HS2 will:

Improve connectivity

- Faster, more frequent and more reliable rail services
- Direct links between eight of Great Britain's 10 largest cities
- Serve more than 25 stations, connecting around 30 million people

Be a catalyst for growth

- Support regional economies by connecting businesses, industries and skills.
- Create new opportunities for leisure travel and tourism.

Provide value for money

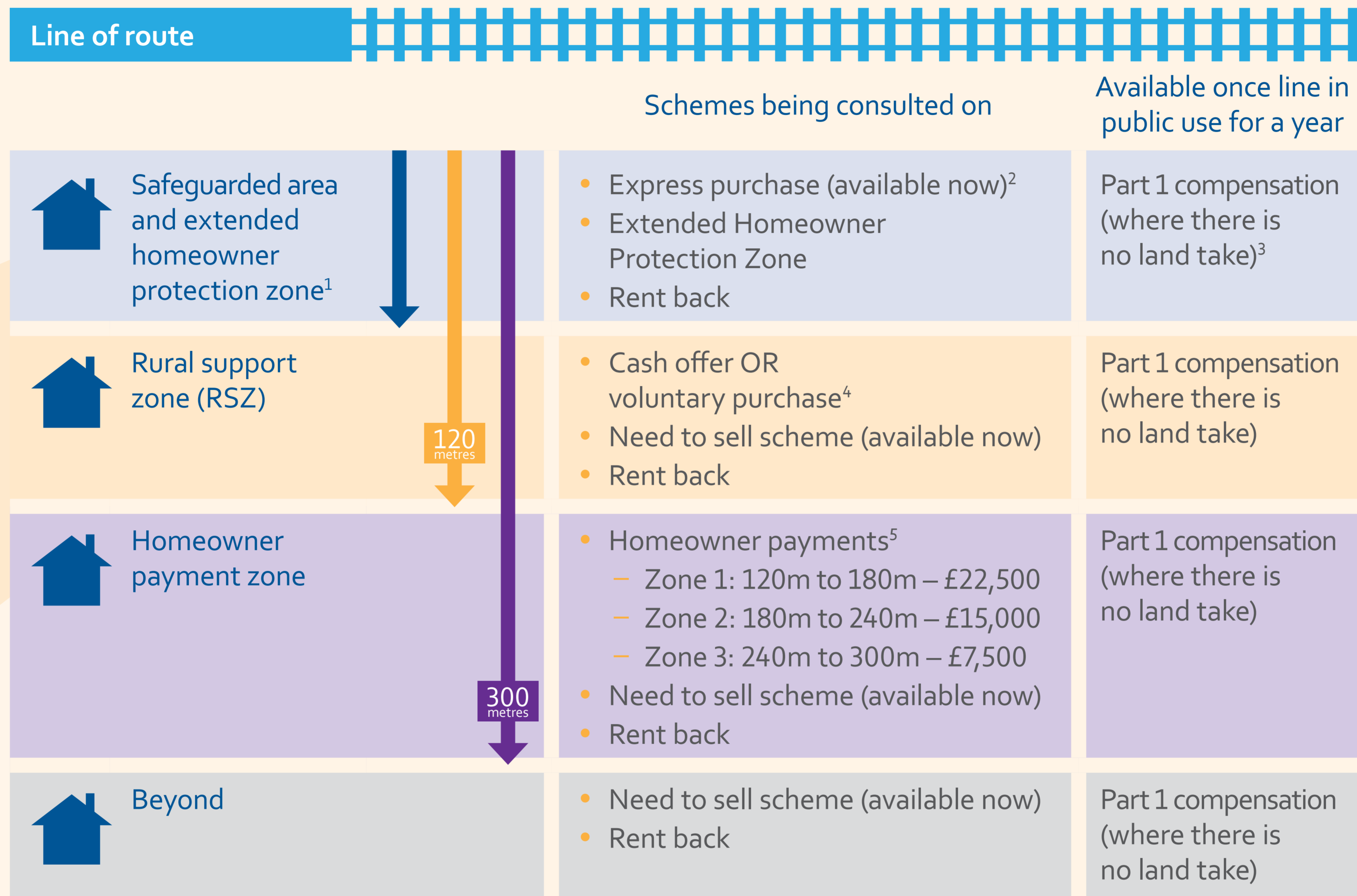
- Deliver £2.30 worth of benefits for every £1 spent, based on our current analysis.
- Create thousands of jobs, both directly and indirectly, with more than 70% of new jobs being created outside London.

The HS2 route



www.gov.uk/hs2

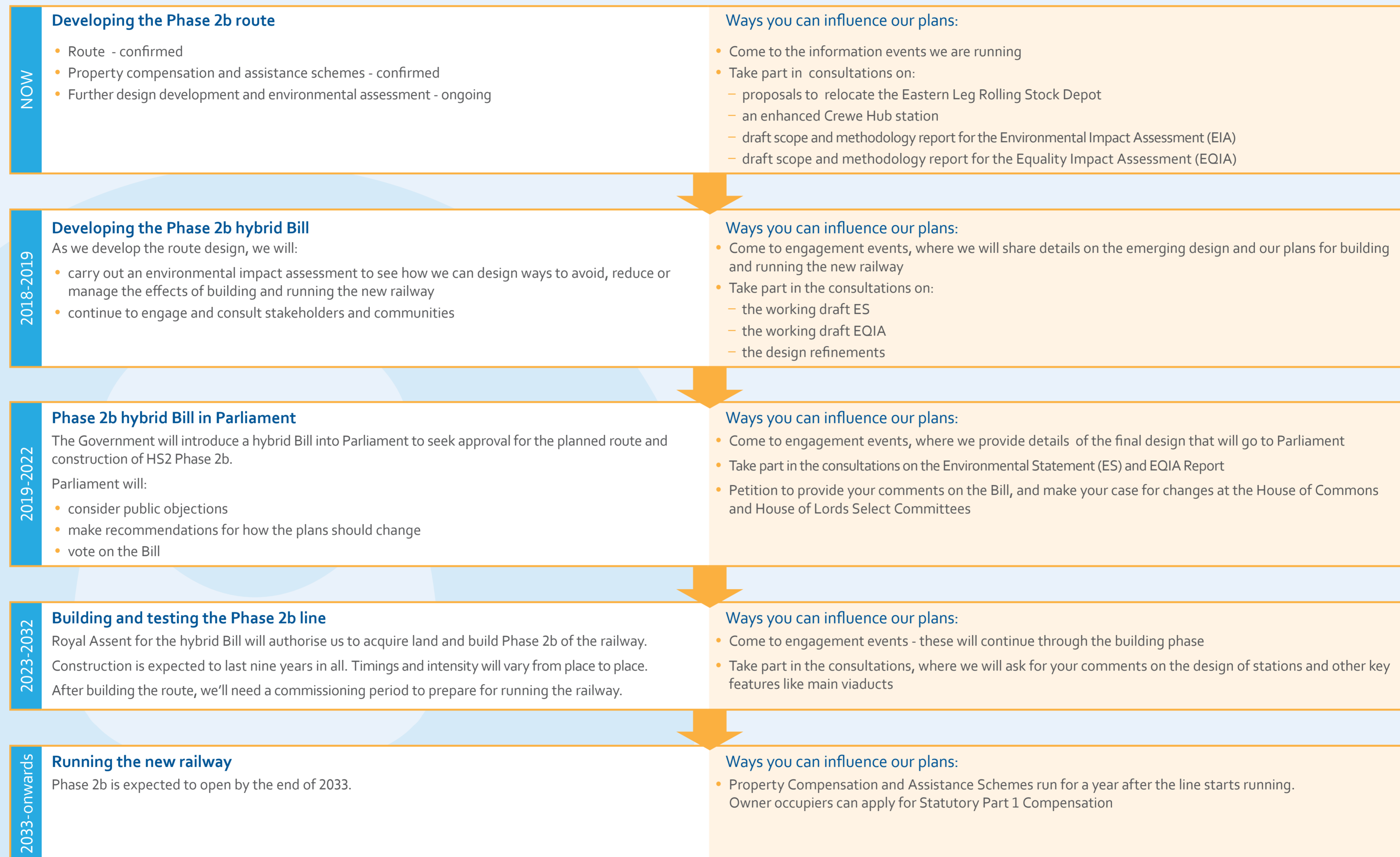
PROPERTY AND COMPENSATION SCHEMES



¹ Usually 60m in rural areas. ² Surface safeguarding only. ³ Compensation for any reduction in the value of property as a result of the physical effects of the operation of the railway ⁴ Applies to rural areas only and does not extend to areas beyond deep tunnels. ⁵ Only available after Royal Assent to the Bill. Applies to rural areas only and does not extend to areas beyond deep tunnels.

Phase 2b information event NEXT STEPS

This is what we expect to happen between now and when the first trains run, along with your opportunities to influence key decisions.



Phase 2b information event
TUNNELLING

Tunnels and their construction

Some of the HS2 railway will be built in tunnels.

With modern technology and good management the effects of tunnelling are small and largely go unnoticed.

We are using data from previous tunnel projects to predict and reduce the likely effects of their construction and operation.

Recent projects such as Crossrail, extensions to the London Underground network and HS1 (the Channel Tunnel Rail Link) show that modern railways in tunnels can run under residential areas without noise or vibration affecting the people who live there.

Tunnels on Phase 2b will be built using tunnel boring machines, each weighing over 1,000 tonnes.

They will be delivered in parts and assembled near the tunnel entrances.

Tunnel shafts

Tunnel shafts are vertical openings connecting tunnels to the surface and open air. These are required to:

- meet the comfort requirements of passengers and staff in tunnels by keeping air quality and temperature within prescribed limits
- provide access for the emergency services and in the event of a fire enable smoke to be extracted and provide fresh air to create evacuation routes



Headhouses and portals

The tunnel shafts have buildings on the surface, called headhouses, which will be designed to be sympathetic to the surrounding environment.



In addition to tunnel shafts, small openings – known as porous portals – are required at the entrance and exits of tunnels to control noise and air pressure effects of high speed trains moving through the tunnel.