

More than a railway

Benefits update June 2023

High Speed Two has now entered peak construction. From completing our first twin tunnel to finishing the foundations for the UK's longest viaduct, the milestones are coming thick and fast – and the benefits are being felt across the country.

HS2's construction will continue to support thousands of jobs, benefit UK business of all sizes and lay the foundations for the arrival of more new rail services into the next decade and beyond.

To date we've awarded contracts to over 3,000 firms spread as far afield as Port Talbot, Perthshire and Newcastle-Upon-Tyne. We've created more than 1,200 apprenticeships – well over halfway to our target of 2,000. And we are focused on attracting diverse talent – putting us ahead of the industry averages.

In this way we are not just building a railway, but a strong and sustainable future for the wider industry.

In March the Government updated its transport capital investment programme, including the HS2 project, recognising significant inflationary pressures facing all parts of the UK economy.

The Government has reaffirmed its commitment to delivering HS2 from London Euston to Manchester. Some parts of the project will be delivered differently over the next few years. Some activity will be prioritised whilst other activity will be deferred.

Our priority is to safely maintain the fantastic momentum that's underway to ensure the initial high-speed services, connecting Old Oak Common and Birmingham Curzon Street, are operational by the early 2030s.

Our strategic goals

HS2 represents a significant investment by the UK taxpayer, which is why the HS2 project has always been about building more than a railway. Our strategic goals provide seven areas of focus:

Sustainability and respect



Health, safety and security standards



Skills and employment



Customer experience



Value for money



Capacity and connectivity



Catalyst for growth



Levelling up with HS2

HS2 is already playing a part in levelling up the country, with companies in every region and nation of the UK benefitting from HS2 supply chain contracts to build the railway:

61% of our critical contracts are with SMEs in our supply chain.

We work with over 2,100 unique SMEs.

96% of our supply chain is with UK businesses.

There are over 3,000 unique UK-registered businesses in the supply chain.



HS2 will build more than 500 bridging structures – including over 50 major viaducts.



Building bridges for East West Rail

Direct rail services between Oxford and Cambridge moved closer as a new bridge was hoisted into position over the HS2 route near Calvert, Buckinghamshire.

Weighing over 315 tonnes, the bridge was assembled on site and lifted into position by crane on behalf of our main works contractor EKFB (Eiffage, Kier, Ferrovial, BAM Nuttall). It will carry services on the new East West Rail line that will link Oxford, Bicester, Bedford and Cambridge.

The bridge crosses one of the longest cuttings on the HS2 project, the 2.1-mile (3.4km) Calvert cutting.

Works began at the cutting in 2022 and the team will remove about 685,000 cubic metres of material to make it wide enough to accommodate other local railway lines in the future.

EKFB will reuse 99% of the excavated material for embankments, noise barriers and landscaping.



Helping off-route companies grow

An Edinburgh-based archaeological company has doubled in size and won new business thanks to its work on HS2.

AOC Archaeology Group of Midlothian now boasts more than 150 staff and a £10 million turnover after being part of the Connect LLP Joint Venture with fellow Edinburgh company CFA Archaeology and Northern Ireland-based IAC.

The joint venture took part in digs on more than 40 sites along the Phase One route between 2016 and 2022, delivering £35 million of work to preserve archaeological finds.

The excavations encompassed works on a deserted medieval village and Roman farmsteads. At Streethay, Connect excavated a late Iron Age to Romano-British transitional site, providing interesting insight into this period of national history.

The company has used this experience to secure work on numerous other infrastructure schemes including the world's largest offshore windfarm at Doggerbank in north-east England, the A9 dualling programme for Transport Scotland, and the cultural heritage programme on East West Rail.



61% of our supply chain are UK small to medium enterprises – that's 2,177 companies nationwide.



Helping local people into work

To help maintain the huge workforce we need to build the railway, HS2 is upskilling people along the route.

As part of our efforts we have already brought more than 3,200 people who were previously out of work on to the project.

Unemployed residents in Walsall recently took part in an eight-week work trial designed to help them build a career in support roles like HR, finance and procurement. So far three candidates have progressed into full-time employment. They include Graham, who is now in a permanent role in a Balfour Beatty VINCI site support team after being out of work for nearly nine years.

In February we also offered 20 places on a fast-track training scheme aimed at out-of-work residents in Buckinghamshire and Northamptonshire. Candidates who completed the two-week course in Brackley were given the chance to progress on to an 18-month groundworker apprenticeship.

And our subcontractor Flannery Plant Hire has built a skills hub that will train up to 500 people a year to be plant operators. More than 100 people have already enrolled at the centre in Westbury, which has a classroom, simulators and an outdoor space used for training and assessments.



33 youngsters from the West Midlands have T-Level industry placements on HS2, while a fast-track employment scheme for Bucks and Northants residents leads to 18-month apprenticeships.



HS2 creates 1,200 new apprenticeships

For Jessica Miles from Cockfosters, North London, joining HS2 was a chance to build a new career.

The 30-year-old had been working in retail for several years and wanted to retrain in HR. "I enjoyed the people aspect of the job and worked my way up to become a manager, but as I got older I was ready for a career change," she says. "HR had always appealed to me but I didn't have any experience in it and wasn't sure how to move into that field."

Jessica researched apprenticeships and found an opportunity with VolkerFitzpatrick – part of Align, the joint venture that is building the Chiltern tunnels and the Colne Valley viaduct. She applied and is now working in Align's HR team in Hertfordshire while studying for a Level 5 HR consultant apprenticeship.



"The days are varied and I feel privileged to be part of a project of this magnitude," says Jessica. "I'm excited to see how it comes together and would like to continue working with VolkerFitzpatrick, hopefully in a managerial role."



Tackling materials shortfall and reducing waste

HS2 is addressing a shortage in materials by assembling steel reinforcements for our Cophthall green tunnel on site – creating jobs, cutting costs and keeping construction on schedule.


Skanska Costain STRABAG joint venture (SCS JV) faced delays when suppliers left the market, so built its own facility to produce the 92,000 rebar couplers needed for the 880-metre tunnel in Hillingdon, west London.

Sheffield-based supplier Leviat helped SCS JV get the facility up-and-running in just 20 weeks. A team of 14 will be working there six days a week, eight hours a day for the next three years.

The green tunnel is only the second UK construction site ever to be given the steel industry's CARES certification, after the Forth Bridge.



Over half the West Midlands–London route will be in tunnels or cuttings, with five green tunnels.



19 construction sites become 100% diesel-free ahead of schedule.



19 construction sites now diesel-free

Nineteen HS2 construction sites are now entirely diesel-free, a fantastic achievement ahead of target dates, showcasing how the project is accelerating the adoption of best practice in the UK construction industry.

Since we reported HS2's first diesel-free site in our previous newsletter, seven sites in the Chilterns and the Colne Valley, and 11 more in London have replaced diesel with cleaner technology entirely. The sites are using a combination of mains electricity, fully electric and hybrid machines, a range

of renewable energy and alternative fuels including hydrogen and sustainably sourced biofuels to power their operations.

"Our ambitious goal is to eliminate diesel on all HS2 construction sites by 2029. One of the first targets in our Net Zero Carbon Plan was to achieve one diesel-free site during 2022, so we're thrilled that 19 sites have reached this major milestone, supported through the hard work from our on site teams," says Andrea Davidson, HS2's head of environmental sciences.



Dorothy completes our first twin tunnel

Tunnelling machine Dorothy has broken through following its second drive under Long Itchington Wood in Warwickshire, completing the first twin-bore tunnel on HS2.

Balfour Beatty VINCI launched the 125-metre-long machine in December 2021, with the tunnelling team working in shifts around the clock to complete the first tunnel in July 2022.

Dorothy was then taken apart, moved back to the north portal and reassembled before starting the second bore on schedule in November.

The machine broke through for the second time in March, completing the twin tunnels that will protect precious wildlife habitats in the ancient woodland above. It will now be dismantled and reused elsewhere on the project.



Women leading on clean construction

As HS2 continues to attract more women into the construction sector, female-led business Qflow is helping us to decarbonise construction.

Brittany Harris and Jade Cohen co-founded the London-based company in 2018. Its software allows our construction partners to digitally log all materials delivered to site, and waste transferred during construction, through a photograph. This eliminates the need for manual data entry, hardware and bar codes, saving project teams an estimated 80% of site administration time.

It also supports Environmental, Social and Governance reporting, and can improve waste compliance by over 70%, while delivering valuable insights that can enable construction teams to avoid over 4,460 tonnes of CO2e.

Recognising Qflow's productivity and sustainability benefits, HS2 innovation funded the initial roll-out at construction sites so contractors could try the software tool. Following a successful trial, every contractor that used Qflow has gone on to procure the system. It was also recognised at New Civil Engineer's TechFest in 2022, winning a trailblazer award.

Sixty percent of the 3,000 businesses engaged in HS2's supply chain are SMEs. With just 30 staff, Qflow is among those set to benefit from future business growth.

HS2's supply chain continues to beat industry averages for female and ethnic minority employees, achieving 28% and 18% respectively.

