

# HS2

Getting the best out of  
**Yorkshire**



CS882c



High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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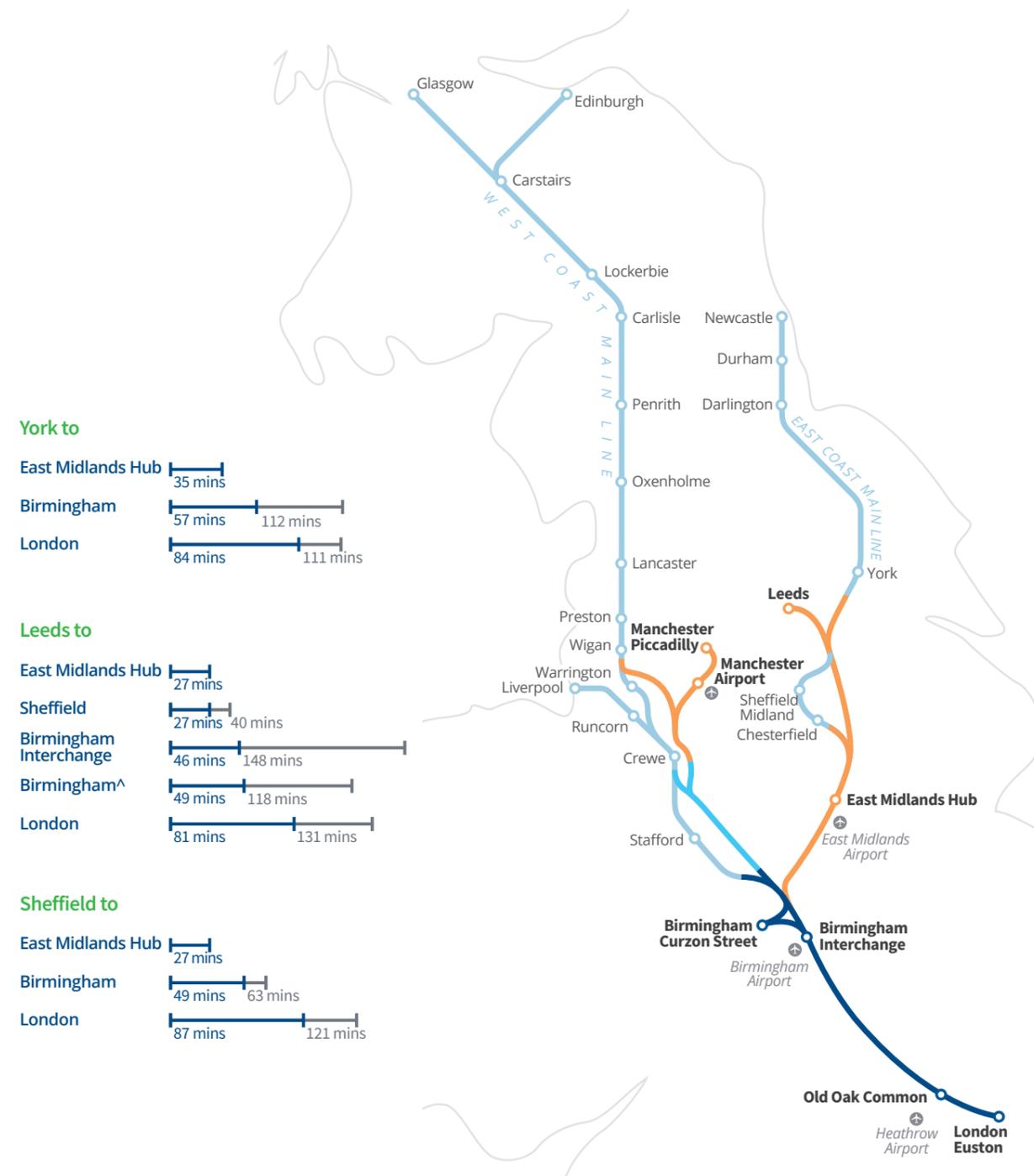
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All times compare fastest HS2 service (full network) with current fastest time.



### HS2 Route Map

- ● Destinations served by HS2
- HS2 line (Phase One – Completed 2026)
- HS2 line (Phase 2a – Completed 2027)
- HS2 line (Phase 2b – Completed 2033)
- HS2 services on existing network



## Yorkshire has a diverse economy that ranges from advanced manufacturers and precision engineering supply chains to a thriving tourism sector and growing clusters of biotechnology, financial and business services and digital firms

Yorkshire and the Humber is home to over 5 million people<sup>1</sup> and contributes over £100 billion to the UK economy<sup>2</sup>, with strengths and capabilities in a diverse range of sectors:

- » The South Yorkshire economy comprises a diverse mix of capabilities and there are strong business-to-business linkages that make up the region's supply chain. The Sheffield City Region's economy is strong in designing and delivering solutions to a range of digital, materials and engineering challenges, particularly in creative and digital industries, advanced engineering and healthcare technology<sup>3</sup>.
- » The Leeds City Region is home to a thriving digital sector, the largest manufacturing sector by employment of any of the UK's core city regions with 142,000 jobs and one of the UK's largest regional hubs for financial and professional services<sup>4</sup>. The City Region has 14 further education colleges and nine higher education institutions, one of the largest concentrations in Europe<sup>5</sup>.

- » York has some of the highest skill levels of any northern city<sup>6</sup>. It is home to two universities and world class research and training facilities such as the National Agri-Food Innovation Campus, Nestlé's Product Technology Centre and Network Rail's Workforce Development Centre. The region has over 14,000 businesses working in the bioeconomy<sup>7</sup> and York has a rail sector that employs skilled designers and engineers, and exports to global markets<sup>8</sup>.

York Minster



Image: Alamy Stock Photo

## HS2 will improve Yorkshire's connections to the national and global economy, helping to raise levels of productivity and growth in the region

In the Leeds City Region, the gap in productivity compared to the national average has widened over time. If productivity measured by gross value added per person matched the English average, the economy of the Leeds City Region would be almost £14 billion bigger<sup>9</sup>. Achieving higher levels of productivity is central to delivering the vision of the Leeds City Region to be a globally recognised economy where good growth delivers high levels of prosperity, jobs and quality of life for everyone<sup>10</sup>.

In South Yorkshire productivity is around 83% of the UK average. Achieving the Sheffield City Region's ambition to add £3 billion to the regional economy and deliver approximately 30,000 highly skilled occupations to create a more prosperous economy will require raising productivity<sup>11</sup>.

The smaller scale of urban areas makes it difficult for city regions in the North of England to secure the same degree of scale and success as their counterparts in the South East. In the North the population is spread out across a number of cities and the density of employment in urban areas is lower than in the rest of England<sup>12</sup>.

This is compounded by poorer levels of transport connectivity compared to the South East. Travelling the 40 miles between Bradford and Sheffield by rail takes a minimum of 1 hour and 16 minutes. Crowding is a growing problem – around one-fifth of rail passengers in the North are dissatisfied with the room to sit and stand – and services can be infrequent. The strategic road network in the North suffers from areas of congestion, such as the M62 in West Yorkshire and the M1 around Sheffield<sup>13</sup>.

HS2 offers faster, more frequent and more reliable travel between cities and areas of the UK and will increase capacity on our congested railways. The eastern leg of Phase Two of HS2 will connect Yorkshire to the West and East Midlands and Transport for the North is exploring options to make use of the HS2 line for faster services between Leeds, York and Newcastle, improving links between regions that are home to around 11 million people. HS2 will allow businesses across Yorkshire to collaborate with supply chains and research and development partners, draw on a deeper pool of skills, access new sources of finance and support networks and secure new customers in regions across Britain.

## HS2 will connect with local and regional transport networks to spread the benefits of improved connectivity across Yorkshire

- » Running HS2 services into Sheffield Midland station will allow an easy, cross-platform interchange to conventional rail services and to the city's tram network<sup>14</sup>.
- » The design of an integrated HS2 and conventional rail station in Leeds, with a common concourse and easy interchange, will ensure a step change in connectivity not only to Leeds, but to surrounding areas, including Bradford as a major city in its own right, as well as Wakefield, Huddersfield, and Halifax and the wider West Yorkshire region<sup>15</sup>.
- » HS2 will also provide a basis for further connections between cities in the North as the Northern Powerhouse Rail (NPR) concept is developed by Transport for the North (TfN) and can potentially support the NPR aspiration to connect Sheffield and Leeds city centres in under 30 minutes' journey time by rail<sup>16</sup>.

Sheffield tram



Image: Alamy Stock Photo

## Improved transport connectivity will strengthen the attraction of Yorkshire as a business location and support the development of highly skilled jobs in the region

London consistently ranks among the world's most attractive cities in which to do business<sup>17</sup>. London is, however, the most costly location among the European cities to do business<sup>18</sup>. HS2 offers businesses the opportunity to relocate or expand their operations in Yorkshire and realise significant cost savings while retaining easy access to opportunities in the capital. Prime office rents in Leeds are around one-fifth of those in the West End of London<sup>19</sup>. Leeds has already been successful in attracting financial, professional and business services companies. The number of people working in head office activities in financial and professional services in the Leeds City Region more than doubled between 2009 and 2014 to almost 17,000 people<sup>20</sup>. Insurance company Hiscox opened a new multifunction office in York in 2015, employing over 200 staff.

Attracting businesses to expand their presence in Yorkshire can help to increase the number of highly skilled jobs. Yorkshire benefits from its large number of education providers:

- » Sheffield is home to two large world class universities with a student body of approximately 60,000 undergraduate and postgraduate students<sup>21</sup>.
- » Nine higher education institutions in the Leeds City Region produce 40,000 graduates per year and the region is home to 14 further education colleges. Bradford is one of the youngest cities in the UK, with almost a quarter of its residents aged under 16, and home to the technology-led University of Bradford and its world-ranked School of Management. The University of Huddersfield is a major anchor institution in Kirklees and Halifax is developing a proposal for a Vocational Higher Education Institution for Digital Manufacturing<sup>22</sup>.
- » York is home to two universities and world class research and training facilities<sup>23</sup>.

- » Leeds successfully attracts young people to move to the city to study. The city of Leeds welcomes more students to its universities, on a net basis, than any other UK city<sup>24</sup>.

Despite these assets, a concern for the Leeds City Region is that fewer high-income jobs have been created than in other parts of the country and fewer middle-levels jobs are contributing to a lack of job progression opportunities for many in the region<sup>25</sup>. The Sheffield City Region has identified a shortfall of 30,000 jobs in higher skilled occupations, with skill levels below the national average<sup>26</sup>.

HS2 will increase the number of skilled workers that businesses based in Yorkshire can access – both directly on HS2 services, and by releasing capacity on the existing rail network for local commuter services. The combination of changes to conventional rail services alongside new HS2 services has the potential to more than double evening peak seats compared to today's services from Leeds towards Wakefield and Doncaster<sup>27</sup>.

HS2 will also offer graduates greater opportunities to build a career in Yorkshire. In Leeds, HS2 and the prospect of improved east-west links through Northern Powerhouse Rail are acting as a catalyst for one of Europe's largest city centre regeneration initiatives at Leeds South Bank<sup>28</sup>. This will make the city centre a more attractive place to live, helping Leeds to attract and retain skilled workers. HS2 will also provide fast, frequent and reliable access to job opportunities in a broader network of places without the need to relocate. As an example, someone living close to Sheffield Midland station will have the option of accessing jobs in Leeds and the East Midlands in under 30 minutes' travel time on HS2 services, in addition to improved local career opportunities in South Yorkshire.

## HS2 can help to grow small businesses in Yorkshire by connecting them to sources of finance and support networks

The Leeds City Region is home to one of the highest numbers of high-growth firms of any region outside London and the South East<sup>29</sup>. The economy of South Yorkshire is characterised by a large number of small and medium-sized enterprises (SMEs), which are focused on the business-to-business supply chain<sup>30</sup>.

However, difficulties in accessing finance can act as a barrier to growth for start-ups and small businesses in Yorkshire. Businesses located in the Leeds City Region identified access to finance as their number one barrier to growth in 2015<sup>31</sup>. Academic studies have previously showed that distance can deter venture capitalists in the UK, US and Germany from investing in companies<sup>32</sup>. London is Europe's leading centre for venture capital<sup>33</sup> and has been ranked as the number one city in Europe for access to capital for start-up and scale-up digital businesses<sup>34</sup>.

HS2 will help to grow small businesses by reducing the effective distance between London-based investors and small and high-growth businesses in Yorkshire. Central London will be accessible from York, Sheffield and Leeds in under 1 hour and 30 minutes using frequent and reliable HS2 services, allowing round trips in half a day to meet with investors. Yorkshire's thriving digital and technology sector stands to benefit from this improved access to investors and support networks, ranging from firms specialising in health technology, Big Data and FinTech in Leeds to businesses in Sheffield and Rotherham with expertise in data management and analytics and in telecommunications<sup>35</sup>.

Magna Science Adventure Centre, Rotherham



Image: Alamy Stock Photo

## Connecting manufacturers, research centres and supply chains will support the competitiveness of advanced manufacturing in Yorkshire

Yorkshire is a manufacturing powerhouse. The University of Sheffield's Advanced Manufacturing Research Centre (AMRC) focuses on advanced machining and materials research for aerospace and other high value manufacturing sectors. Around 70 companies have joined as members, from global aerospace companies such as Boeing, Rolls-Royce, BAE Systems and Messier-Bugatti-Dowty, to local small businesses<sup>36</sup>. Bradford has above average concentrations of production business and employees in manufacturing<sup>37</sup>. Manufacturing accounts for almost one in nine jobs in the Leeds City Region compared to one in 12 in England as a whole<sup>38</sup>.

Knowledge sharing, new discoveries and serendipity are encouraged when engineers, scientists and researchers are able to come together and collaborate. HS2 will support face-to-face collaboration in research and innovation by effectively shrinking the distance between manufacturing plants, their suppliers, universities and research centres. Some of the UK's best universities and manufacturing clusters in Yorkshire will be connected to research centres and supply chains in the East and West Midlands, the Tees Valley and the North East of England.

The University of Sheffield Advanced Manufacturing and Research Centre



Image: HS2 Ltd

## HS2 will provide businesses in Yorkshire with access to new customers in the UK and overseas

HS2 will offer businesses based in Yorkshire access to businesses in other regions of the UK that could not previously be accessed at a reasonable travel time and cost. This increase in business-to-business connectivity will provide businesses in Yorkshire with significant opportunities to forge relationships with new customers, suppliers and research collaborators.

The Sheffield City Region recognises that the market within the region is not sufficient to deliver the scale of opportunities required to grow the region's manufacturing, engineering and materials businesses. The City Region's Growth Plan aims to increase sales of goods and services to other parts of the UK and abroad. Frequent and reliable high speed rail connections will encourage face-to-face contact between the region's manufacturing, engineering and materials businesses and their clients in supply chains across the UK, helping South Yorkshire to provide the design and development solutions that drive growth in high-value-added sectors nationwide<sup>39</sup>.

Yorkshire's strong and diverse tourist offer contributed over £5 billion to the region's economy in 2015. Yet visitors from London and the South East accounted for a relatively low share of total visitors to the Yorkshire and

Humber region (5% in 2011)<sup>40</sup>. HS2 will bring Yorkshire's tourism destinations closer to domestic tourists based in the Midlands, London and the South East, as well as improving rail links to airports to attract international tourists to the region. HS2 services will call at York station, which will act as a gateway to Yorkshire's sporting, cultural and historic attractions.

HS2, as part of a wider transport network, will improve accessibility to export markets for Yorkshire businesses through a dedicated high speed rail station at Birmingham Airport. Heathrow Airport will also be a short interchange from the HS2 station at Old Oak Common in West London. Journey times from Leeds to Birmingham Airport will fall to below 50 minutes, providing easy access to long-haul flights to North America and the Middle East<sup>41</sup>. HS2 will bring Heathrow Airport within 1 hour and 45 minutes' travel time from Sheffield and Leeds, enabling businesses in Yorkshire to meet with international clients and suppliers and helping to attract inward investment to the region.

The West Yorkshire Combined Authority is developing a proposal for a parkway-type station on the existing rail network to provide enhanced connections to Leeds Bradford Airport<sup>42</sup>.

<sup>^</sup> HS2 is capable of a journey time of 49 minutes for services directly between Birmingham and Leeds that travel entirely on the high speed line. The 2017 HS2 business case showed such services routed via Sheffield.

<sup>1</sup> ONS Population estimates for UK, England and Wales, Scotland and Northern Ireland, mid-2016 estimate.

<sup>2</sup> ONS Nomis data, Regional gross value added (income approach) in 2015.

<sup>3</sup> 'Sheffield City Region: Sector Specialisms', TBR and the University of Sheffield for Sheffield City Region LEP, June 2014.

<sup>4</sup> 'Leeds City Region Economic Assessment 2016', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>5</sup> 'Leeds City Region Strategic Economic Plan 2016-2036', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>6</sup> 'Changing Britain: HS2 Taking Root', HS2 Ltd, October 2016.

<sup>7</sup> <https://www.biovale.org/our-region/>.

<sup>8</sup> 'Changing Britain: HS2 Taking Root', HS2 Ltd, October 2016.

<sup>9</sup> 'Leeds City Region Economic Assessment 2016', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>10</sup> 'Leeds City Region Strategic Economic Plan 2016-2036', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>11</sup> 'Sheffield City Region Strategic Economic Plan 2015-2025', Sheffield City Region LEP.

<sup>12</sup> 'The Northern Powerhouse Independent Economic Review: Workstream 1: Analysis of the pan-Northern Performance Gap – Final Report', SQW and Cambridge Econometrics, May 2016.

<sup>13</sup> 'The Northern Powerhouse: One Agenda, One Economy, One North: A report on the Northern Transport Strategy', Transport for the North, March 2015.

<sup>14</sup> 'Sheffield and South Yorkshire Report 2016', HS2 Ltd, July 2016.

<sup>15</sup> 'The Yorkshire Hub: An interim report on the redevelopment of Leeds station', HS2 Ltd, 2015.

<sup>16</sup> 'High Speed Two: From Concept to Reality', HS2 Ltd and Department for Transport, July 2017.

<sup>17</sup> London was ranked first in 2016 and second in 2017 in AT Kearney 'Global Cities' index. London also maintained its number one ranking in the PWC 'Cities of Opportunity Index'.

<sup>18</sup> 'Competitive Alternatives, 2016 edition: KPMG's guide to international business locations costs', KPMG.

<sup>19</sup> CBRE, 2015 Q4 data.

<sup>20</sup> 'Leeds City Region Economic Assessment 2016', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>21</sup> 'Digital: A Snapshot of the Creative Digital Scene in Sheffield', University of Sheffield and Creative Sheffield, June 2017.

<sup>22</sup> 'Leeds City Region Strategic Economic Plan 2016-2036'. Leeds City Region Enterprise Partnership.

<sup>23</sup> 'Changing Britain: HS2 Taking Root', HS2 Ltd, October 2016.

<sup>24</sup> 'The great British brain drain: An analysis of migration to and from Leeds', Centre for Cities, February 2017.

<sup>25</sup> 'Leeds City Region Labour Market Analysis 2016/2017', Leeds City Region LEP, November 2016.

<sup>26</sup> 'Sheffield City Region Strategic Economic Plan 2015-2025', Sheffield City Region LEP.

<sup>27</sup> 'High Speed Two: From Concept to Reality', HS2 Ltd and Department for Transport, July 2017.

<sup>28</sup> 'Changing Britain: HS2 Taking Root', HS2 Ltd, October 2016.

<sup>29</sup> 'Spatial Incidence of High Growth Firms', Enterprise Research Centre, February 2016.

<sup>30</sup> 'Sheffield City Region Strategic Economic Plan 2015-2025', Sheffield City Region LEP.

<sup>31</sup> 'Leeds City Region Business Survey 2015', Leeds City Region LEP.

<sup>32</sup> Lutz et al. (2013). Importance of Spatial Proximity Between Venture Capital Investors and Investees in Germany. *Journal of Business Research*; Mason, C.M. and Harrison, R. (2002). The Geography of Venture Capital Investments in the UK. *Transactions of the Institute of British Geographers*, 27(4). pp. 427-451; Bernstein, S., Xavier, G. and Townsend R. (2014). The Impact of Venture Capital Monitoring. *Journal of Finance*.

<sup>33</sup> 'Venture capital funds sprout amid rush to invest in London tech', *Financial Times*, 5 February 2015.

<sup>34</sup> European Digital City Index 2016. Available at: <https://digitalcityindex.eu/>.

<sup>35</sup> 'TechNation 2016', TechCity.

<sup>36</sup> <https://hvm.catapult.org.uk/hvm-centres>.

<sup>37</sup> 'Leeds City Region Strategic Economic Plan 2016-2036'. Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>38</sup> 'Leeds City Region Economic Assessment 2016', Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority.

<sup>39</sup> 'Sheffield City Region HS2 Growth Strategy – Tranche 1: Brief for Work Package 2 – Establishing Wider Connectivity Requirements', Sheffield City Region, Unpublished Draft, March 2017.

<sup>40</sup> 'HS2 Phase 2b Strategic Case', Department for Transport, November 2016.

<sup>41</sup> <https://birmingham.airportdirecttravel.co.uk/destinations/browse-destinations>.

<sup>42</sup> 'Transport Strategy 2040', West Yorkshire Combined Authority. Draft 25 July 2017.

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