



About High Speed Rail Group

High Speed Rail Group (HSRG) is committed to supporting the successful delivery of a world-class high speed rail network in Britain. Our members have helped deliver major infrastructure projects in the UK and around the world, including creating entirely new high speed networks and improving the UK's existing rail network. This gives us a unique insight into both the shortcomings of the current network and the transformative capacity, connectivity and carbon benefits that high speed rail brings. We support a national high speed rail network which includes the delivery of HS2, high speed rail's integration with the existing network and investment to maximise the released capacity benefits HS2 brings on and off route, along with other rail investments such as Northern Powerhouse Rail and Midlands Engine Rail.

Find out more at www.rail-leaders.com

© June 2020, High Speed Rail Group (HSRG), Some Rights Reserved: We actively encourage people to use our work, and simply request that the use of any of our material is credited to High Speed Rail Group in the following way: High Speed Rail Group (HSRG),

CONTENTS

Executive Summary
Contributions6
Jasmine Whitbread - CEO, London First: A capital project? - HS2 and London
Dyan Crowther - CEO, HS1 Ltd: What the global rail industry can learn from the UK's only high speed line10
Damian Green MP - Member of Parliament for Ashford: Ashford's renaissance
Deirdre Wells OBE - CEO, Visit Kent: HS1 and Kent's tourism boom
Liz Peace CBE - Chair, Old Oak and Park Royal Development Corporation: The transformation of Old Oak
Steve Higham - Managing Director UK & Ireland Engineering, SYSTRA UK: Major transport infrastructure is a catalyst for regeneration across London
Councillor Heather Johnson - Chair, Camden Council Planning Committee: Places and people: What makes transport investment work
Kat Hanna - Masterplan Strategist Euston Project, Lendlease: So much more than a station: How a masterplan for Euston will put people and place first34



"HS1 is now an integral part of the success of London and the South East, and is a blueprint which demonstrates how transformative high speed rail can be at a national level. Through HS2 these benefits will be maximised at scale and felt not just in London and the South East, but across the country."

Executive Summary

The Government's commitment to HS2 as a nationally transformative programme was confirmed by its decision in February 2020 to continue with the project, followed by issuing of the Notice to Proceed in April, all of which has set in train the main construction works on Phase 1 of the scheme. By giving the green light for construction to begin on the first part of the line, linking London and Birmingham, it is an acknowledgement of the many advantages the scheme will bring. As Andrew Stephenson MP, Minister for HS2, has said: "HS2 will be the spine of the country's transport network, boosting capacity and connectivity while also rebalancing opportunity fairly across our towns and cities."

As the southern starting point for HS2 construction, London will play a key role in ensuring the future success of the project, setting the precedent for world-class construction, supply chain development and utilisation, and realising the wide-ranging benefits of the scheme. As the UK's largest construction programme HS2 is already providing opportunities for businesses, including in London and the South East. It is a huge economic stimulus programme that is more than 'shovel ready', it is now underway. Providing highly skilled jobs and supporting a wide supply chain, there are currently 9,000 direct jobs on the HS2 programme, a figure which will rise to 30,000 in the coming years.

As the country looks to recover from COVID-19, the HS2 project will form an important part of the economic programme ahead and brings into focus the essential relationship between effective major infrastructure and multiplier effects. The scheme will also build resilience within the transport system.

Essential to the Government's 'levelling up' agenda, HS2 integrates the national economy more closely with the capital's, enabling the global gateway that London presents to be widened throughout the country. The project brings Britain's major economic centres closer together, as such changing economic geography. Alongside this, cities and regions are developing their urban strategies based on HS2, with Birmingham and Leeds among the places securing significant investment.

HS2 is not a stand-alone scheme but a new railway spine, connecting eight out of ten of the country's biggest cities and underpinning other major schemes such as Midlands Engine Rail, Northern Powerhouse Rail and what will become High Speed North. The benefits of HS2 extend much further than the line of route. In fact, research shows that 73 stations on the existing rail network stand to benefit from improved passenger services



as a direct result of the capacity released by HS2, including 54 stations with no direct HS2 services or London commuter routes. In addition, the scheme frees up capacity for more than 140 extra freight trains per day, enough to transport over 2.5 million more lorries' worth of cargo on railways each year. It will also be essential to freeing up capacity on the West Coast Main Line, the busiest mixed-use line in Europe, for commuter, regional, intercity and freight services.

As the transport sector undertakes an irreversible shift towards net zero emission mobility, a high capacity fully electrified railway such as HS2 will be vital to making this happen. HS2 can deliver the capacity and journey times savings to shift many more people and more freight out of cars, HGVs and planes by the 2030s, without causing a decade of disruption to our existing train services. HS2, combined with other schemes, will provide the rail capacity needed to significantly shift travel away from polluting road and air alternatives, whilst driving lower carbon forms of construction, and acting as an enabler for wider low-carbon transport improvements.

London and the South East have already experienced the benefits of high speed rail services through, at present, the UK's only high speed route, HS1. In this edition of *Voices*, we draw on the experience of the successful implementation and running of HS1 over the last 13 years and the lessons that have been learnt, including place shaping and regeneration supported by the new railway. HS1 provides an exemplar of the type of opportunities and benefits ahead, and what HS2 can achieve at scale on a national level.

Two major transport interchanges

In this edition of *Voices*, we highlight two of the stations at the southern terminus of the line. The redevelopment of Euston will deliver much needed extra capacity and better journeys for the millions of people who use the station, more than double the number of seats out of Euston in peak hours, whilst also freeing up more local and long-distance commuter services to places like Watford, Northampton and Milton Keynes. HS2 will also deliver 11 new 400m long platforms, a new concourse and improved connections to Euston and Euston Square underground stations. In time, Crossrail 2 will arrive and connect the station with the wider South East.

A substantial amount of enabling and pre-construction work has already taken place, undertaking utility diversions and removing buildings to prepare sites for the line. On the route from London to Birmingham, Europe's largest archaeological dig is also taking place.



The construction of a new station at Old Oak Common in west London will deliver high speed rail services across the country to the Midlands, Scotland and the North and access to central London and Heathrow via Crossrail. The site is also the UK's largest regeneration project, which will become a new neighbourhood supporting up to 65,000 jobs and 25,000 new homes, contributing to a £15 billion economic boost over the next 30 years.

Our Voices

Our first report in this series, *North West Voices*, offered strong support for HS2 and the different ways it will benefit the region. In this collection, voices from London and the South East also offer wide ranging support and coalesce around a number of key benefits:

- Improvement in connectivity to and between regions, Europe and the global economy and the economic benefits this brings
- Integrating the national economy and increasing investment and trade opportunities
- Joining major economic centres resulting in mutual benefit
- Immediate and longer term job creation during and post-construction of the programme
- Supporting cities and towns including through increased tourism
- Supporting new homes and investment in communities, including the UK's largest regeneration project
- Creating new places and public space benefits through transport investment
- Gains from the operational reliability and efficiency of high speed rail
- Development of cutting edge project management in major infrastructure delivery
- Environmental benefits accrued by switching from road and air to rail

Contributions come from a range of 'voices' throughout London and the South East and include Members of Parliament, local government, tourism and business.

In 'Ashford's renaissance' Member of Parliament for Ashford Damian Green outlines how the arrival of HS1 in Kent has 'been the most significant factor in making the town attractive to inward investment for half a century.' Whilst in 'A capital project? - HS2 and London' Jasmine Whitbread, CEO of London First, makes clear that HS2 will 'fundamentally' reshape the UK's geography, and 'dispel any notion that London is an island.' She explains that: 'As we are all increasingly connected and reliant upon one



another, the need for long term investments in our core infrastructure to provide extra capacity and resilience is key' and 'brings business confidence, national recovery and economic growth.'

Job creation is also positively impacted through high speed rail, with work already underway at key sites. The development of the Old Oak Common area is one. In 'The transformation of Old Oak', Old Oak and Park Royal Development Corporation's (OPDC) Liz Peace describes how harnessing new connectivity alongside maximising the assets of public land strengthens job creation. This is supported by SYSTRA's Steve Higham, who describes how the station redevelopment's Joint Venture is working to build the complex programme, which once complete will see a projected 250,000 passengers a day using the new station supporting local jobs. Jasmine Whitbread also draws attention to how faster and regular links help attract employees from a wider area and to academic, innovation and research hubs. Dyan Crowther, CEO of HS1, in 'What the global rail industry can learn from the UK's only high speed line' highlights how the scheme has driven job growth, including supporting around 3,600 full time jobs in the tourism sector.

Tourism is an important benefit of HS1, demonstrating what high speed rail can do for regional and international tourism. Visit Kent's Deirdre Wells makes clear that since its inception, the line has provided invaluable connectivity for visitors by significantly reducing journey times from the capital and Europe. Kent's visitor economy has topped £3.8 billion and has welcomed a record 65 million visitors. 'It cannot be disputed' says Wells, 'that HS1 has played a major role in our region's growth, improving connectivity and opening up Kent more than ever before.' Damian Green MP echoes this, highlighting in relation to tourists that: 'half have indicated that the availability of high speed services was a factor in their decision to visit. One in ten say they would not have visited Kent without HS1.' The arrival of HS2 will therefore not only be significant for London's visitor economy, but also that of the Midlands, North and Scotland, all of which will be more accessible. Long-distance leisure travel is growing and forms a significant portion of journeys, but it is also a less recognised part of travel patterns.

Places will be reshaped by HS2, with benefits for existing and new communities. Old Oak Common will be transformed from former industrial brownfield to a major urban centre representing the UK's largest regeneration project and creating many thousands of new homes and public places. In her contribution, Liz Peace argues in favour of creating community through connectivity and 'a legacy location for London and

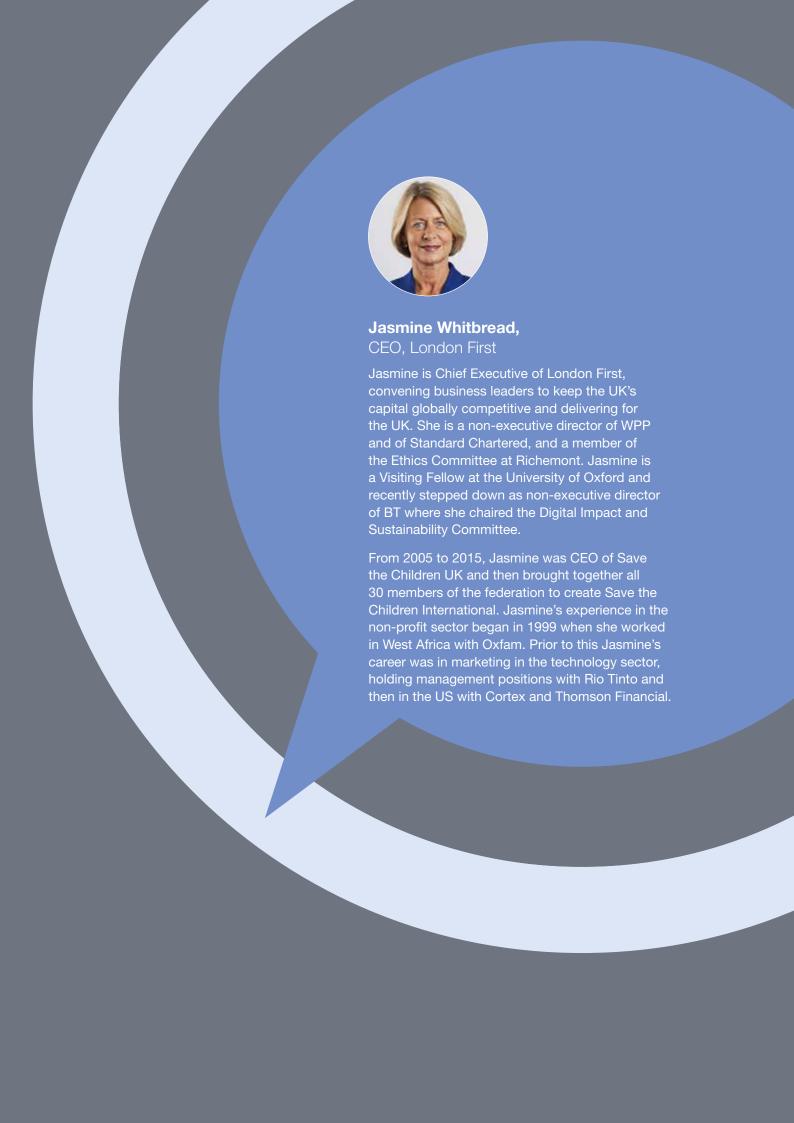


the rest of the UK that provides significant employment, enhances quality of life and creates opportunity through a holistic placemaking approach.' The Chair of Planning at Camden Council, Councillor Heather Johnson, uses her contribution to describe the positive impact that the arrival of HS1 and corresponding redevelopment of Kings Cross had at a local and city level, with a focus on public space, community use and involvement and a long term 'forever' approach to investment. There are lessons to be learnt, she says, for the development of HS2 at Euston. In 'So much more than a station: How a masterplan for Euston will put people and place first', Kat Hanna emphasises how Lendlease's masterplan seeks to ensure that the redevelopment of Euston has a transformational impact not only at a national level, but in the lives of the surrounding communities by improving the quality of place and life.

The operational reliability and efficiency of high speed rail is also key, with London and the South East already experiencing these benefits through HS1. Dyan Crowther sets out how high speed rail delivers long term value and performance in a way that traditional railways cannot, with an average delay of below five seconds, and a 93% increase of passengers to 15 million since 2011. Similarly, Steve Higham speaks to how exemplary station design and construction will support similar benefits for HS2.

A recurring theme is the environmental benefits of high speed rail. The carbon reduction impact of moving longer journeys from road and air to rail is substantial. Only high speed rail can provide the rail capacity required to make significant modal shift a reality. Damian Green MP evidences the results of HS1, with £66 million of environmental benefits from those choosing not to fly. As Dyan Crowther writes, high speed rail provides benefits and improves connectivity for longer journeys in an environmentally friendly way, with journeys made by train to Paris, Brussels and Amsterdam producing 80% less CO2 emissions than flying, and for the predicted 4.9m extra passengers a year, this would be the equivalent of 26,000 short-haul flights.

HS1 is now an integral part of the success of London and the South East, and is a blueprint which demonstrates how transformative high speed rail can be at a national level. Through HS2 these benefits will be maximised at scale and felt not just in London and the South East, but across the country. Critically, as we look to rebuild resilience and economic growth in a post- COVID- 19 world, the development of HS2 as major infrastructure scheme becomes even more essential.



"The real impact of HS2 will be in the way it brings the major economic centres of the UK closer together. It will fundamentally reshape our geography – particularly for business. It will dispel any notion that London is an island. The success of our capital relies on the success of our other great cities."

A capital project? - HS2 and London

There is still a long way to go in the fight against COVID-19 but it has already highlighted some of the fundamentals of how our society works and what real resilience and future-proofing means. It has shown us how we are all increasingly connected and reliant upon one another. It has shown us the need for long term investments in our core infrastructure to provide extra capacity and resilience. And it has shown us that we can only thrive as a country when we work together. The current crisis will pass and, when it does, these lessons will need to be embedded in the DNA of our future political and economic decision-making.

This Government has already shown in at least one area that it is capable of taking these sorts of strategic decisions: it has given HS2 the go ahead. We all know that HS2 represents a new spine of 21st century infrastructure to augment the UK's strained Victorian rail network. Proceeding with the project will strengthen business confidence, support our national recovery and, in time, growth. It will also, crucially, help to level up the Midlands and the North of England, and integrate the economies of these regions with each other and with London.

Less appreciated is the transformational impact that HS2 will have within the capital. The area around Euston is one of the last great regeneration opportunities in the heart of London. The Network Rail station has been crying out for development and, in time, Crossrail 2 will arrive to better connect the station with the wider South East. The Government's decision to take time to get these multiple projects right, and make sure they are well integrated, is sensible. Similarly, at Old Oak Common the scale of the opportunity that comes from the combination of being able to jump on the Elizabeth Line to Heathrow or Canary Wharf in

about 20 minutes and reaching Manchester in an hour on HS2 (with the Midlands accessible in half that time) will mean that this area of west London could be unrecognisable from its current patchwork of low density housing and industrial land.

That said, the real impact of HS2 will be in the way it brings the major economic centres of the UK closer together. It will fundamentally reshape our geography – particularly for business. It will dispel any notion that London is an island. The success of our capital relies on the success of our other great cities – eight of the largest ten cities will be better connected than ever before – and, equally, our nations and regions will thrive with a successful London.

Faster and more reliable connections will allow more projects like Media City, in Salford, to take off. In the longer term, HS2 could help to revolutionise corporate planning. Decision-makers in business may join those in the civil service in considering whether the huge concentration of corporate headquarters and administrative centres might be more effectively distributed into areas where space is considerably less expensive, while regional firms may look to establish satellite offices in the capital.

There are knock on benefits. Faster, regular links, particularly at peak times, mean that businesses will find it easier to attract and retain employees from a wider area. Skilled workers and specialists from the North and the Midlands can find roles in high value industries in London, particularly in the financial services. Likewise, academic and technical specialists can more easily access the research and innovation hubs the Government is working with business to support in the North and the Midlands. Given the intense pressure on small businesses, we can't underplay the importance of interregional links in improving their access to finance, expertise and the professional networks that are clustered around the capital.

The links will also enable shoppers, visitors and those seeking specific services to more readily access urban centres beyond their local regions. Successful local chains can more confidently plan for expansion into London, while London's retailers and hospitality chains can look north. London is the UK's front door and a preeminent international gateway. Providing fast and smooth linkages to the UK beyond London will encourage international visitors to explore the wonders that every corner of the country has to offer.

We must never forget that HS2 is about so much more than a single railway line. It will free up capacity, and increase reliability, across the railway network and ensure that fewer vehicles are clogging up the nation's arterial roads. Recent evidence from Midlands Connect shows that 73 places across the country could benefit in additional capacity released by HS2, including 54 that are not served by a single HS2 train. On the West Coast Mainline itself, HS2 can add 13,000 peak hour seats. Upgrading existing lines would add less than a quarter of that number. And it is not just passengers who will benefit; extra freight trains could take more than 2.5 million lorries off the roads each year.

This is clearly a time of great uncertainty, not only in terms of COVID-19 but also with the Brexit transition deadline looming. But every serious review has endorsed HS2; the project has been chosen and supported by governments of all political persuasions; and Parliament has repeatedly and overwhelmingly backed it. This is just one of the tough, but right, decisions that the UK needs to continue to take in order to turn itself into a

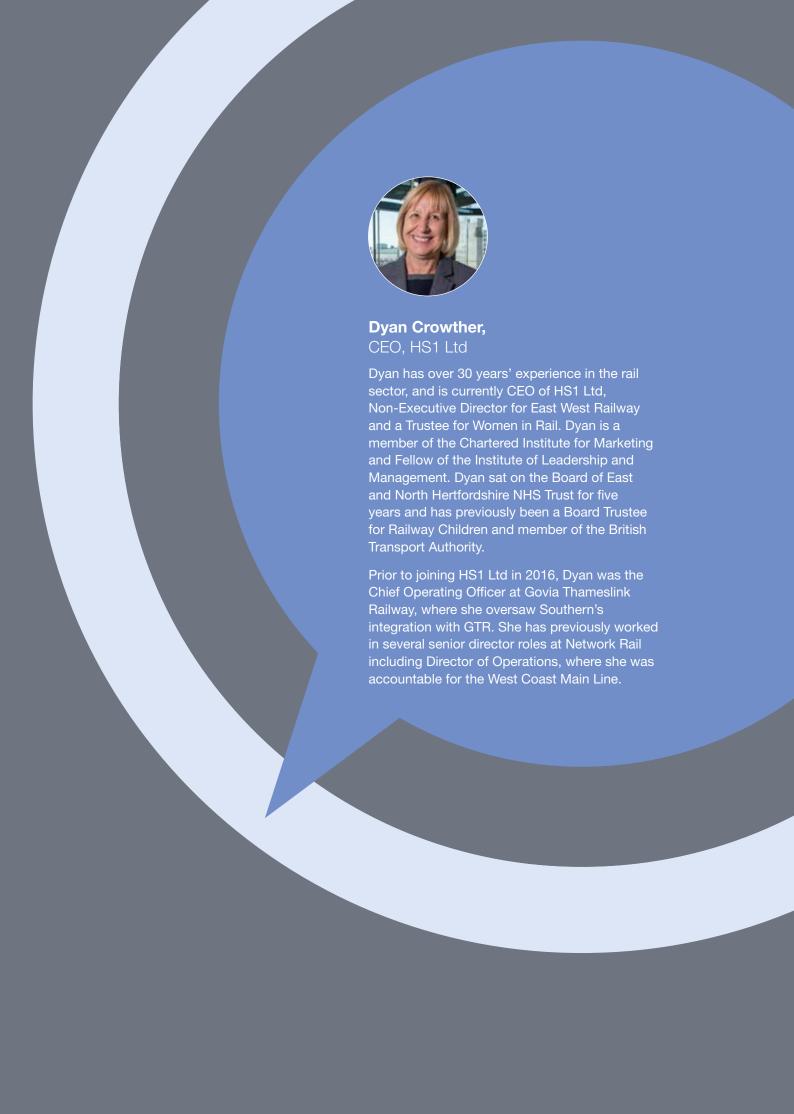
dynamic economy able to prosper outside the European Union. Infrastructure is fundamental to this national endeavour. The UK has lagged behind our competitors in road and rail investment for most of the last 25 years. Whilst the UK is 9th in the world for overall competitiveness according to the World Economic Forum, our rail infrastructure is ranked 19th according to the World Bank. When the COVID-19 crisis abates, the UK economy will be at a transitional moment – the successful delivery of HS2 will send clear signals about our confidence and ability to remain a key global economic hub.

When London First polled 500 businesses last year, two thirds backed the project. Across the country businesses want HS2 as part of a wider infrastructure pipeline that boosts all regions. Our roundtable discussions in London showed support for Northern Powerhouse Rail, just as those in Liverpool and Leeds want to see Crossrail 2 happen. So pressing ahead with HS2 is a great start but it must be integrated into a wider National Infrastructure Strategy that commits to the long term investments that are desperately needed in every part of the country – including the capital. This is one area where business across the nations and regions of the UK agree.









"The line brings businesses closer together, opens markets, spurs the building of additional, usually more affordable housing, and significantly boosts tourism...research shows that HS1, and the services which make use of the high speed line, creates almost half a billion pounds of socio-economic benefits every year."

What the global rail industry can learn from the UK's only high speed line

High speed rail plays a crucial role in connecting communities and businesses and driving economies, not just locally, but internationally and globally. As Britain's first and (currently) only high speed railway, HS1 is pushing the boundaries of connectivity, efficiency and asset management, as well as leading the way in delivering socio-economic and environmental benefits to the regions it serves, the UK more widely and across Europe.

With the welcome decision earlier this year to push forward with HS2, now more than ever the industry must take on board the key learnings and benefits from the UK's only existing high speed line.

Over the last 50 years, the rail industry has undergone substantial change, including privatisation, technology advancements and improvements to passenger safety. Governments around the world are investing heavily in high speed rail, including in the UK with HS2, but high speed rail has been around a lot longer than many of us think. The Japanese Shinkansen system - or the 'bullet train' as most people know it - was the first high speed service to open back in 1964. High speed train travel didn't begin operating in the UK until 2003 - or indeed in China which has been rolling out high speed rail out at an impressive rate since then - and HS1's domestic and international connections didn't open to the public until 2007. Now, inter-country and cross-border transportation has become ever more popular, with multiple railway operators running international services, connecting the European regions and of course us here in the UK.

As a high speed line, HS1 is responsible for transporting passengers (and goods) from one destination to another more efficiently than the rest of the UK rail industry. Academic evidence tells us

that alongside ticket fares, journey times is one the most important factors influencing rail demand today and the value placed on 'saving time' by passengers is a crucial factor in policymaking and investment decisions for the transport sector worldwide. So, we listened to the evidence. Before HS1, the average journey time on the Southeastern service between London and Ashford International was 1 hour 28 minutes, but, by high speed rail, this journey can now be made in just 37 minutes – giving back 51 minutes of precious time.

Not only are we saving time, we are transporting more passengers for both work and leisure purposes. More than six million passengers from the UK are taking international journeys on HS1 every year, choosing the speed and comfort of international high speed train travel. We are working with our partners to grow existing international routes and lay the foundations for new ones, which we estimate could attract an extra 4.9 million journeys per year.

Last year, we supported our operator, Eurostar, with the launch of its third daily service to Amsterdam, following its growth in popularity. We are also working closely with our partners, LISEA, Eurotunnel and SNCF Réseau, to develop a new international, high speed route to Bordeaux in under five hours, which we anticipate 200,000 passengers will use every year.

Each international route generates significant socioeconomic benefits, and in a recent study that we commissioned from Steer Group, we found that the international line already brings in £2 billion to the UK economy annually. The line brings businesses closer together, opens markets, spurs the building of additional, usually more affordable, housing, and significantly boosts tourism. Our recent research shows that HS1, and the services which make use of the high speed line, creates almost half a billion pounds of socio-economic benefits every year, supporting around 3,600 full-time tourism



sector jobs. Domestically, high speed rail removes more than 6,000 cars and lorries from our roads, bringing 400,000 people within an hour's commute of London, and has already encouraged the construction of 15,000 affordable homes.

In the context of our growing concern about reducing carbon footprint in our everyday lives, it is no secret that high speed train travel offers an eco-friendly form of transportation, particularly when compared to cars and planes. A passenger traveling to Paris, Brussels and Amsterdam by train produces 80% less CO2 emissions than if they fly, and those extra 4.9 million international journeys per year can save a further 470,000 tons of CO2 – which is the equivalent of an extra 26,000 short-haul flights.

To ensure these benefits remain and HS1 continues to deliver long term value and performance, we must protect and enhance the existing infrastructure along the line. This requires ongoing maintenance by our infrastructure managers and regular investment. Our performance record and passenger growth rates are testament to this maintenance, with an average delay of below five seconds due to HS1 infrastructure, and a 93% increase of passengers to 15 million since 2011. Working closely with our partners, we are consistently thinking strategically, anticipating issues in the future to prepare for and acting swiftly to mitigate risks and keep passengers safe.

However, success comes with its own issues and learnings. Passenger numbers on domestic services alone are set to rise 127% by 2044, which will certainly put an unsustainable strain on the current rolling stock on the network. HS1 still has capacity on its railway, we have space for more trains and more services, so at this crucial period of growth we are engaging with the Government to realise the full potential of this important asset and work with all partners to increase the rolling stock on the HS1 line. The introduction of extra trains will ensure that the hundreds of thousands of people who rely on the high speed network for work or leisure can continue to travel in speed and comfort. It will also bring lots more benefits to the Kent region, and the UK more widely – driving regeneration and growth even further.

We live in a country that has an appetite for investment in ambitious infrastructure projects and it is our duty as global pioneers in transport to ensure this remains the case. It's clear HS1 is essential to the nation's future growth, providing benefits and improving connectivity in the most environmentally friendly way possible. We are proud to be flying the flag for British high speed rail and see HS1 as a model for the future.







"The arrival of the domestic and international high speed services has undoubtedly been the most significant factor in making the town attractive to inward investment for half a century."

Ashford's renaissance

When you emerge from Ashford station you are greeted by a variety of new buildings and institutions. They range from a brewery/restaurant to a multistory office block, a cinema complex and a Further Education College. What links them is that they were only built because Ashford has high speed rail.

The arrival of the domestic and international high speed services has undoubtedly been the most significant factor in making the town attractive to inward investment for half a century. Being 38 minutes from central London, as well as two and a half hours from the centre of Paris and Brussels makes Ashford the ideal place to set up a new business or expand an existing one. The extra demand created by those who work in these new businesses means that the leisure facilities offered in the town are incomparably better than they were ten years ago.

Of course it is not only my constituents in Ashford who benefit from HS1. Every year the national economy benefits to the tune of £427 million from the extra activity created by the service. Most of this comes from the shorter journey times, which are equally welcome in personal terms by the 15 million domestic and 11 million international passengers carried each year.

One of the most ridiculous arguments used against high speed rail in general is that "It's only cutting 20 minutes or half an hour off the journey, so why spend all this money?" If you are taking ten journeys a week on a high speed line for 46 weeks of the year, you add up all those half hours and it means you have been given a big chunk of your life back.

There are also environmental benefits. Estimates of HS1 usage suggest that around four million passengers have switched from using cars or planes. This not only means a significant reduction in carbon emissions from these journeys, it produces better air quality, reduced noise pollution, and lower traffic accident rates. Noise is a particular issue for me, as I can remember those who campaigned against the route before it was built said it would be intolerable to live near. I live about a mile from the line and have never heard a train pass, partly, I suspect because of the M20 motorway running alongside the track.

As for international travel on the line, there are £66m of environmental benefits from those who choose not to fly. This shift from air to rail reduces annual emissions by the equivalent of 750,000 tonnes of CO2 a year, or 60,000 short-haul flights.

Much of the advantage goes to those who use it for commuting to work. There is a great attraction in paying Kent housing prices while earning London wages. Average property prices in the HS1 catchment area in Kent, at £280,000, are about half the levels in the commuter catchment area of south east London. 164,000 more households are less than an hour from central London. It is proving the way for many young individuals and families to take the first step on the housing ladder.

But it is not just a commuter railway, and I hope that in the future we will enhance the current efforts being made to promote tourism in Kent via the railway. For these very welcome tourists, half have indicated that the availability of high speed services was a factor in their decision to visit. One in ten say they would not have visited Kent without HS1. Now that we are developing new attractions such as the Kent wine trail, this tourist business will be important for the future prosperity of the county.



Whether I look at HS1 from the perspective of my constituency, from the whole of Kent, or from a national perspective, the verdict is overwhelmingly positive. Indeed, even from a global perspective the move towards a less polluting form of transport is good for the planet. In the context of the HS2 debate, it is true that the construction phase is painful for anyone living along the route. But the long term benefits are so great that I have always supported HS2, because I want other communities to enjoy the benefits that Ashford has seen since the advent of high speed rail.







"The ease of access to Kent has turbo-charged regional regeneration, investment in new businesses and allowed our county to grow its thriving tourism industry."

HS1 and Kent's tourism boom

While HS2 continues to gain momentum as one of the most exciting transport projects in Europe, it is worth looking to its older sibling down South - which this year turns 13 – and identifying the positive impact the UK's first high speed rail service has had on Kent's visitor economy.

Since its launch in November 2007, the HS1 line – running between London and Kent – has provided invaluable connectivity for visitors by reducing journey times from the capital and the continent drastically. The ease of access to Kent has turbocharged regional regeneration, investment in new businesses and allowed our county to grow its thriving tourism industry.

In 2017, our latest Cambridge Economic Impact Model research revealed that Kent's visitor economy had increased by 7% (since 2015) topping £3.8 billion for the first time ever and welcoming a record 65 million visitors. It cannot be disputed that HS1 has played a major role in our region's growth, improving connectivity and opening Kent up more than ever before.

In advance of HS1's 10th birthday in 2017, we released research showing the full extent of the rail line's contribution to the previous decade of growth for the Kent visitor economy. This study highlighted some exciting findings, not only recognising the importance of HS1 to Kent's booming visitor economy, but also the potential for future growth to come, with some of the highlights including:

 Between 2010 and 2016, leisure journeys to Kent via HS1 increased almost nine-fold from 100,000 to 890,000, with almost a third of Kent visitors citing HS1 as having influenced their decision to choose the county.

- The total economic impact of HS1 on the Kent visitor economy since domestic high speed rail services launched in 2007, was found to be £311m.
- HS1's activity led to the creation and support of 5,766 tourism sector jobs in Kent during this time
- 73% of businesses believed that HS1 had attracted more leisure visitors to the county.

Perhaps one of the best-known examples of a destination that has benefitted from a hugely successful regeneration during HS1's lifetime is Margate, nestled on the north-east tip of our sweeping coastline. More than 250,000 rail tickets were sold to and from Margate between May and September in 2018, tempting holiday-goers from London with its appealing blend of contemporary art culture and classic British seaside. This charming seaside spot has witnessed a huge culture-led regeneration in the wake of HS1, particularly following the opening of Turner Contemporary Gallery in 2011 and revival of Dreamland Margate in 2015. Last year, Margate hosted the prestigious Turner Prize, and this January (2020) announced that the exhibition had attracted 141,550 visits - making it the gallery's most popular Autumn exhibition ever, and the second most visited Turner Prize exhibition of all time. HS1 even had a starring role in the exhibition itself, when artist Oscar Murillo transported 20 life-size effigies to Turner Contemporary from St Pancras International (in just 1 hour and 30 minutes). Our 2017 Economic Impact research found that over £319 million was spent in Thanet (Margate, Ramsgate and Broadstairs) as a result of tourism.

Only 38-minutes from London on high speed services, Ashford is also currently seeing an exciting influx of investment, including a new craft brewery from the owners of Chapel Down winery, a six-screen Picturehouse cinema, a significant expansion

to its Designer Outlet retail destination and plans for an ambitious film and TV studio scheme. Both Ashford and Margate are prime examples of how significant infrastructure can transform towns across our county, developing vibrant places to visit, live and work.

Ensuring that the transformation brought about by HS1 continues requires a commitment to collaboration. At Visit Kent, we work closely with our transport partners across the county, including HS1 and Southeastern Railway in order to ensure that they are at the very core of our destination messaging. In fact, over the last 10 years Southeastern have been central partners of our flagship campaign activity, which focused on London as a key target market, creatively and consistently working to promote the ease of day trips and short breaks to Kent via the high speed network.

Working with partners who understand the need to put the destination at the heart of their transport messaging and who see the benefit of combining a first-class commuter experience with a vibrant leisure business has been hugely valuable.

Since its arrival in 2007, HS1 has brought millions of visitors to Kent to enjoy our beautiful coastline, world-class heritage and culture, stunning landscapes and gourmet food. At a time when visitors are looking for more sustainable ways to travel, we look forward to continuing to work with our partners to deliver engaging and inspiring experiences which don't cost the Earth.









"There is no better example of placemaking potential created through brilliant transport connections than that provided by Old Oak Common. The connectivity brought about by the new HS2 station, combined with a new Crossrail platform and the other transport infrastructure that already criss-crosses the area, is unrivalled."

The transformation of Old Oak

The concept of creating good places through connectivity is nothing new. Connecting people to and through a place is universally accepted as a key strand of creating or regenerating successful communities. It is the cornerstone of well thought out urban planning and an attribute every new development, no matter how big or small, should aim for from its outset.

A place that is well connected is more likely to stand the test of time, generating its own self-sustaining economy by attracting people to live, work and visit. Good transport links create ease of movement to, from and within, whilst careful master planning provides for walkability or cycling, between homes, facilities and open space.

Unlocking opportunity through connectivity

There is no better example of placemaking potential to be created through brilliant transport connections than that provided by Old Oak Common. The connectivity brought about by the new HS2 station, combined with a new Crossrail platform and the other transport infrastructure that already crisscrosses the area, will be unrivalled.

When the Old Oak Common HS2 Station opens in 2028, it will transform a currently under-utilised and deprived area of London into an entrance to the capital and a gateway to the UK and the world. It will also be the largest interchange station built since Waterloo – over a century ago – with 250,000 people expected to pass through it every day.

This nationally important piece of transport infrastructure will directly connect to eight out of ten of Britain's largest cities – approximately half the UK's population. The arrival of HS2, with its

connection to Crossrail and the Great Western Mainline at Old Oak Common, as well as its proximity to Heathrow Airport, will alter perceptions of distance and commuting, leading to new economic and social opportunities and public benefits unseen for decades.

Maximising public benefit

The Old Oak and Park Royal Development Corporation (OPDC) is tasked by the Mayor of London to capitalise on this truly incredible asset by creating a whole new district for west London. The need for regeneration at Old Oak is not only about responding to a national housing crisis – although with an aspiration to deliver up to 25,000 new homes, a large percentage of those being affordable, it will go some way to helping meet that need. It is about creating a legacy location for London and the rest of the UK that provides significant employment, enhances quality of life and creates opportunity through a holistic placemaking approach.

Now more than ever, following the COVID-19 pandemic, regenerating Old Oak and Park Royal is needed in order to maximise the investment of HS2 by creating public benefits through homes and jobs. In doing this we believe we can strengthen the UK's economy by some £7bn every year.

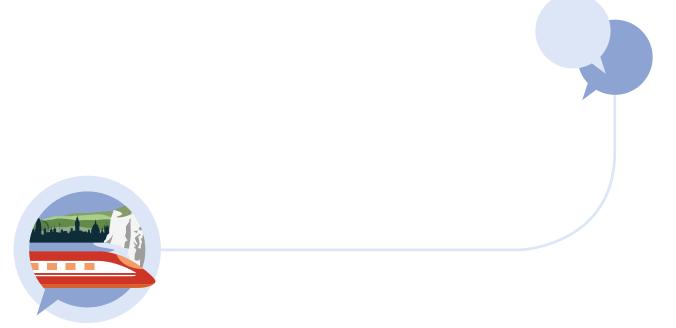
We are developing exciting plans that will capitalise on the new station and the public sector land available for major redevelopment, much of which is owned by the Department for Transport and Network Rail; organisations defined by connectivity. Effectively stewarding the Government-owned sites that sit at heart of Old Oak offers tremendous scope to achieve a large, exciting and genuinely integrated new community in the heart of west London, which will be a leading example in how to harness connectivity and publicly owned assets to create new homes, jobs and public benefit.

A place to live, work, visit and love

We will not be able to realise these aspirations overnight: creating a new place takes years of careful planning. If you look at the highly successful regeneration of King's Cross, also catalysed by a major transport hub, it has been decades in the making and still has a number of years to run before its transformation is complete.

With the Notice to Proceed for HS2 having now been issued, and notwithstanding the constraints on our people due to the current COVID-19 crisis, we are working hard to put together the outline of a new masterplan that will form the basis for extensive local engagement and for seeking long term investment funding. It is only through this careful and thoughtful planning and engagement that we will be able to ensure that the huge investment in transport infrastructure that the Government is making leads to an outstanding new location of which Londoners can be proud.

As a Mayoral Development Corporation, OPDC is perfectly placed to work with local and national government, as well as partners HS2 Ltd and Network Rail, in order to harness the unique attributes of the Old Oak Common Station and other infrastructure, not only to deliver homes and jobs, but to create a place that stands the test of time, enables social and economic opportunity and forms a new part of Britain's future.







"The Jubilee Line Extension was all about increasing capacity and connectivity whilst being a catalyst for substantial regeneration. The same holds true for HS2. Of course, it's on a much larger scale, it's a national project – yet the benefits will be felt across London as well as further afield."

Major transport infrastructure is a catalyst for regeneration across London

Public transport infrastructure is one of the key drivers of urban development. Our current networks must increase capacity and create connectivity whilst being reliable, accessible, and safe for its passengers. One of my first roles as an engineer was on the Jubilee Line Extension in the mid-1990s where I witnessed first-hand the transformative impact of transport infrastructure upon local neighbourhoods and beyond. I spent two years helping to convert a 400m-long former dock into an underground cathedral that would later be called Canary Wharf Station.

The Jubilee Line Extension established 11 brand new stations east towards Stratford via Canning Town. The extension finally gave Canary Wharf and the Isle of Dogs much needed connectivity and sparked the complete transformation of the London Docklands from a tired industrial area with numerous brownfield sites and wasteland into a thriving global hub, and a centre for the UK's financial services. Since its opening in 1999, the Jubilee Line Extension has increased public transport capacity, relieved congestion on the Docklands Light Railway (DLR) and opened up much of east London. The 2012 London Olympics, centred around the Olympic stadium in Stratford, was testament to east London's rise. Today, the entire Jubilee Line moves approximately 213 million passengers per year between its 27 stations.

The Jubilee Line Extension was all about increasing capacity and connectivity whilst being a catalyst for substantial regeneration. The same holds true for HS2. Of course, it's on a much larger scale, it's a national project – yet the benefits will be felt across London as well as further afield. The new HS2 station

at Old Oak Common will kickstart the regeneration of a former Great Western Railway depot and industrial area in East Acton and Harlesden, west London.

Plans to transform the wider area around the station are being led by Old Oak and Park Royal Development Corporation (OPDC) which suggests that the area around the new HS2 station will become a brand new and desirable neighbourhood with the potential to create tens of thousands of homes and jobs. OPDC's strategy is to create an accessible, healthy, high quality and 'smart' area. In fact, the similarities with London's Docklands are obvious.

The regeneration of Old Oak Common will engender both short and long-term benefits in relation to job creation. Not only will there be the direct jobs associated with the design and construction, but many jobs will also be created as a consequence of the new high speed rail station. It is estimated that the regeneration and transformation the area will support the creation of up to 65,000 jobs and 25,000 new homes. A projected 250,000 passengers a day will use Old Oak Common station, which gives an indication of how its arrival will impact both existing and new local businesses. Working with the OPDC, it has been predicted that the new HS2 station will contribute to a £15 billion economic boost over the next 30 years.

The connectivity benefits will be immense. When high speed services start running in 2028, it will take nine minutes to travel from Old Oak to London Euston station, and 38 minutes to Birmingham Curzon Street. The Old Oak Common area is set to be one of London's key strategic development hubs.

My team at SYSTRA are already working hard with partners Balfour Beatty and VINCI to manage the design and construction of Old Oak Common Station on behalf of High Speed 2 Ltd.



The size and complexity of the station is eyewatering. The Old Oak Common station will stretch across a length of 1km and extend 20m below ground level. The end result will be iconic and one of which Londoners will be proud. It's a complex job. This major hub station will be the biggest project in the UK for over 100 years - incorporating six 450m long high speed platforms situated underground that connect with eight conventional rail platforms at ground level, four of these will serve the Great Western Mainline. It will also integrate the new Elizabeth Line (Crossrail), taking passengers west to Heathrow and east into Central London and then onto Essex. A bright atrium with a 25,000m2 roof inspired by the site's industrial heritage will link both halves of the station and will use 3,700t steel. The station will include 44 escalators and 53 lifts.

Another core element of Old Oak Common's design is its integration with its surrounding locality. Above the HS2 platforms, a new public park is planned to welcome visitors to the new neighbourhood, with Old Oak Common providing a focal point. The station design also involves widening Old Oak Common Lane, which will improve access for buses, cyclists and pedestrians.

When approaching a project as complex as HS2, much of our focus examines how the railway affects the rest of the station and beyond. My team has plenty experience working on rail and high speed projects in particular, throughout the world. We completely understand how the many different and necessary elements fit and work together.

I am really proud to be working on Old Oak Common Station - not just a complex piece of transport infrastructure, but a regeneration project that will create a brand new neighbourhood in west London for people to live, work and spend leisure time.







"Railways don't operate in isolation, they connect places, and as such places create communities. It is my belief that high speed rail is at its most successful when the community is viewed as an essential part of its development."

Places and people: what makes transport investment work

As a local councillor and as Chair of Camden's Planning Committee, I've seen numerous developments in my borough including the two high speed rail hubs: Kings Cross/St Pancras and Euston. The former opened more than a decade ago, the second is underway. This experience has made clear to me that two elements at the centre of such developments must be the community and public space.

Railways don't operate in isolation, they connect places, and as such places create communities. It is my belief that high speed rail is at its most successful when the community is viewed as an essential part of its development. In turn, as with HS1 and Kings Cross, this means not only developing new spaces for commercial use and housing but mixed-use spaces that benefit existing and new communities alike.

HS1 enabled an uplift for the Kings Cross area before works even started. The area was bound to change, and become attractive generally speaking, but the way HS1 was built and designed utilising the beautiful station of St Pancras and making it into an iconic building, alongside the restoration of Kings Cross station and new public spaces, made the area very attractive. The transformation we see now brings to mind the contrast at the start, of unused railway land of poor quality, derelict buildings and anti-social behaviour.

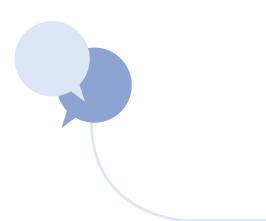
Throughout the redevelopment, an emphasis was put on open, public spaces. The Kings Cross railway lands have a community feel. Kings Cross doesn't look forbidding or a ghost town in the evening like some new developments. A lot of the public space went in first. Much effort by Argent, the developer, went into making these spaces popular and of use to the community. One of the best examples has

been Granary Square. There was a sense of local ownership from the start and a new space to enjoy. Since then usage has only increased, and it has become a destination in both Camden and London more broadly.

HS1 has acted as a catalyst for the development of the whole area. New offices and companies have moved in, including the likes of Google. Private and affordable housing has been built, the University of the Arts London moved in through the arrival of Central Saint Martin's, as well as new spaces suitable for charitable organisations and academic and research institutions. Kings Cross has developed into a new area with its own postcode.

A good example of this is the development of the Knowledge Quarter, within Kings Cross, Euston Road and Bloomsbury. Science and knowledgebased work is incredibly collaborative and being in close proximity to a major international transport hub has been essential to securing the arrival of organisations including the Francis Crick Institute. Having that major transport link to Europe and existing links to the rest of the country has meant that people can easily meet up and work together. Without this transport, the development wouldn't have happened in this way. It opened up new developments and land so new buildings could be put there, like a reverse domino effect, not falling down but rising up, with one new building or expansion helping the next. The area now acts as a gateway to knowledge of every kind.

There are many lessons from HS1 which can be applied to HS2 at Euston. Seeing it as a community and part of a community is central. There was a huge amount of consultation with the community and Camden during the Kings Cross project. From the beginning, the developers worked very hard with communities around the area to ensure that the development supported them as well as the new community. Given the nature of the railway lands and tracks at Kings Cross, communities around it were somewhat blocked off. The community and





developers were not always in step and there was local opposition. The community around Kings Cross could have lost out in some ways.

But, I saw flexibility from Argent who worked hard to build the new community, negotiating, consulting and listening and this was, and remains, important. The order of the building work was important too with public space, social housing and the University of the Arts coming first, bringing 'buyers' and 'place' from the start. As the planning process went along, small and big changes were made to make it a better area. In the original masterplan for Kings Cross there were plans for a new primary school. By working with the developers, Camden received agreement to co-locate Frank Barnes School for Deaf Children. It was not in the original masterplan, but through this approach and collaboration it has worked out really well.

There are significant differences between the projects. Euston is being carved out from an existing local community. So, you need to listen to what local people, the local authority and planners are saying, and it is even more important as initial works at Euston move to construction.

The Government's decision to proceed with HS2 should act as a marker for recalibrating the Euston redevelopment, making sure that the Camden community is at the centre of all future plans. We need to recognise that there are a lot of angry residents. The community can stand to benefit the most from such schemes, but also find themselves disadvantaged through changes to their local area and lengthy construction works. What takes place must ensure the local community receives the benefits from the arrival of high speed rail.

There is the Euston Area Plan, developed right at the beginning of the HS2 process with local involvement. Anything that goes on the site should be looking to that original plan. With HS2 coming to Euston, it could transform the station, stopping it acting as

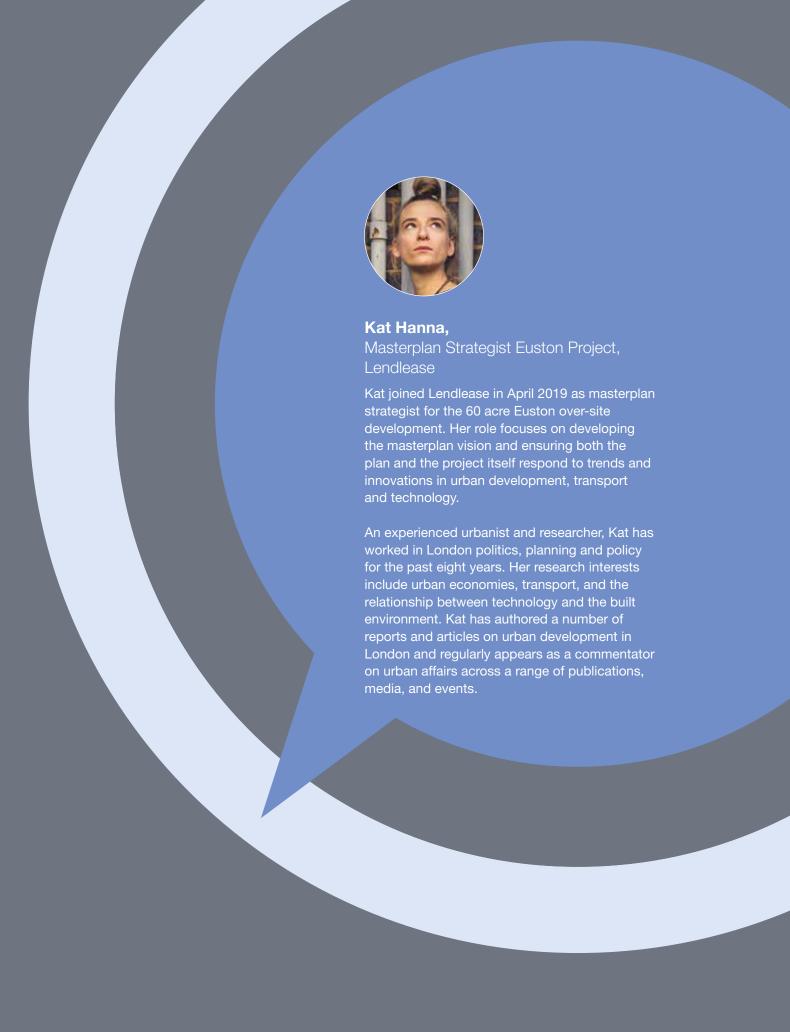
a barrier between east and west and cutting off communities. That was given as a benefit to people locally, is this no longer being sought or is this still being sought? We see a three-phase proposal, new lines of high speed track come in. When open, some more lines open with existing line updated, then the rest of the station is upgraded. This is piecemeal and partly seems down to financing. There must be proper funding by Government to secure the full benefits locally.

Development needs to be thought of in the long term. Argent at Kings Cross have been there for the long run. They're not building and selling; they're retaining the management and ownership of spaces. That's what we need to see at Euston, what I'd term a 'forever solution.' This would ensure that local people can access jobs and community businesses can develop, for example the Drummond Street restaurants should be integrated into the new development. Like HS1, fully accessible replacement green spaces need to be at its heart. Because Euston is so much part of local community, even more thought has to go into how space works for them, including accessible jobs.

Euston is bigger and broader than the new railway line, but there isn't an equivalent development structure to that at Kings Cross. It can't rest with HS2 Ltd. Camden Council is getting the blame too. The Government is looking to create a new structure for Euston and this seems to be a fresh opportunity. But, the local community should be able to shape this.

In ten years when you get off at Euston, I'd like that it's not just the transport you experience but the station itself which links to the local area and local community. People should arrive and know there is a community, which can be seen and is part of a great place.





"Today we have the opportunity to reaffirm Euston's role as a connector of cities and communities, and to restore a sense of prestige and pride to rail travel. As before, there is an opportunity for a transformational impact on both the national economy and lives of the surrounding communities, to improve both the quality of place, and quality of life."

So much more than a station: How a masterplan for Euston will put people and place first

Covering a 60-acre site in central London, at Euston we have a once in a lifetime opportunity to transform one of the UK's busiest transport hubs into a thriving and welcoming place for passengers, communities, residents, workers and visitors.

Thanks to HS2, Euston will have high speed connections to almost all regional cities in the UK. This new connectivity will place Euston at the heart of a genuine commitment to sustainable transport, and to inclusive growth across networks of cities, towns, and neighbours, and to places that prioritise the wellbeing of people and our planet.

What makes Euston so unique is the chance to deliver a nationally significant station construction project alongside a masterplan for comprehensive development. The following piece sets out why this opportunity is so important, and the principles guiding Lendlease's approach to development at Euston.

Opened in 1838, Euston station was the capital's first intercity rail terminus, connecting London to Birmingham. The London to Birmingham route constituted the UK's second intercity route, following the success of the Manchester to Liverpool line in 1830. Architecturally, Euston station, was defined by two buildings. The first – the Euston Arch – symbolising Euston's role as the Gateway to the North, a monument to the ambition and ingenuity of connecting London to Birmingham and beyond. The second – the great hall – revealed the power of the station as more than a railway terminus, a place where goods and ideas are traded, where friends and family meet and where lifelong connections are forged.

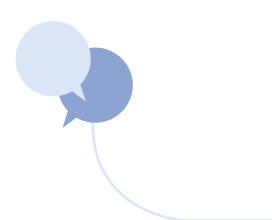
Almost two hundred years on from Euston's opening, both buildings are long gone, and the station is struggling to serve both its passengers and neighbours. Decades of piecemeal expansion has seen the station footprint expand with little consideration to its surrounding communities. With no major interventions since 1968, Euston station has failed to keep up with both passenger and freight demand, and consistently ranks amongst the worst in terms of passenger satisfaction.

Today we have the opportunity to reaffirm Euston's role as a connector of cities and communities, and to restore a sense of prestige and pride to rail travel. As before, there is an opportunity for a transformational impact on both the national economy and lives of the surrounding communities, to improve both the quality of place, and quality of life.

Following our appointment as Master Development Partner by the Department for Transport in March 2018, our focus has been on how we can deliver a masterplan that delivers both the greatest possible social and economic benefits – locally and nationally – alongside returns to the Treasury.

In our role as Master Development Partner, we are working with the Department for Transport, Network Rail, Camden, HS2 Ltd, the Greater London Authority, Transport for London and the local community to set out how Euston could be transformed.

We are responsible for the planning and then the building of everything above, between and around the HS2 and Network Rail stations – a site of almost 60 acres, that's equivalent to about 45 football pitches. This includes new offices, homes, cafes, shops, community, leisure and entertainment facilities, and new public spaces including squares and green space.





We want Euston to become more than just a station. We want Euston to become somewhere that not only benefits its residents and neighbours, but shows the world what it and its communities are capable of. We want Euston to become a new piece of the city that evolves into something larger than itself, and demonstrates the benefits of radically improving mobility, prioritising sustainability, and investing in the health and wellbeing of communities.

Euston is an exciting but complex project. It's long timeframe, and the number of partners involved, means we have worked on establishing a set of guiding principles that will shape the project as it evolves:

Unlocking the opportunity: Comprehensive development at Euston means we can reconnect the neighbourhoods surrounding Euston that have been divided by the station and its tracks. We can add more green and open space, homes and jobs – making the most of space above, between and alongside stations.

Achieving these ambitions requires making the most of Euston's connectivity, and the resulting 75 million annual visitors to support density, delivered by decking over tracks and developing landmark tall buildings where appropriate. Our design will prioritise a mix of uses, not just across the site, but vertically within buildings that will combine work, leisure, and residential space.

Taking on such a comprehensive redevelopment of the site also provides the opportunity to celebrate stations and the vital contribution that rail makes to reliable, enjoyable, and sustainable transport. World class design and passenger experience will see Euston become the new benchmark of local, national and global infrastructure.

People and Places: If Euston is to become more than just a station, it has to put every person that interacts with the space first, not just passengers. The routes and spaces between buildings are just as important as the buildings themselves, and will

be designed so that Euston feels inclusive and welcoming for all. Euston will have something to offer everyone, whatever their age or background.

It's time to take back the streets that Euston station swallowed and reintroduce a network of streets that is easy to understand, and gives every plot its own address. New routes will make it easy and enjoyable for people to cross the site, both from east to west and north to south.

We are committed to making sure the masterplan improves the daily lives of local people. Our masterplan will prioritise the creation of a range of open and green spaces. Today's Euston lacks green space, with few places for people to stroll, sit, and socialise amongst nature – places that are vital to people's physical and mental health. Improving air quality and biodiversity, these spaces are vital for the health of the planet too.

Resilience: An opportunity to comprehensively re-plan a significant part of a global capital city like London at this scale is rare. Euston has the potential to become a global exemplar that the UK can replicate in other urban developments, multiplying the benefits nationally.

This is an unrivalled opportunity, and responsibility, for ourselves and our partners to work towards achieving a net zero carbon built environment and making zero carbon living easy and enjoyable. This includes the use of sustainable materials and construction techniques, and the creation of car-free routes and neighbourhood designs that encourage walking and cycling.

Euston is more than just a station redevelopment. It is an opportunity not just to deliver an integrated station, but to integrate stations and rail infrastructure with the urban fabric, rather than dividing it. Achieving this is about more than a satisfying feat of engineering – it is about harnessing the impact of transport investment to improve the lives and wellbeing of individuals, communities, and through leading by example, the whole of the UK.



