



Midlands Connect
Economic Impacts Study



May 2015

Introduction

The location of the Midlands, at the heart of the UK's road and rail networks, is central to its success. The Midlands contains the UK's manufacturing heartland and it has the UK's largest cluster of logistics activity. High-growth technology businesses are located around world-class universities and there are strong concentrations of professional services in the major cities.

However, there are significant challenges with traffic congestion, delays and poor journey reliability, and crowding, poor service frequencies and long journeys on many rail services. This is impacting on the competitiveness of both the Midlands and the wider UK economy.

Tackling these transport constraints has the potential to unlock large economic benefits to both the Midlands and the whole UK. This study sets out the findings from these analyses.



Potential Economic Impacts

The study has considered the impacts of reducing overall journey times (including the effects of journey reliability on the road network, waiting times and crowding on trains) by 10% and 20% in both 2026 and 2036. It has used the Department for Transport's National Transport Model for the road network and 'PLANET' model for the rail network, which both take into account future growth in travel demand from more people living and working in the Midlands.

The analysis has considered the direct impacts on the costs of travel and wider impacts on the productivity of the economy through 'agglomeration' effects from businesses being more closely clustered together. In the case of the rail network, the analysis has included the effects on the labour market from improving the ease of commuting.

It is also possible to assess the potential impacts on job creation. There is a clear positive correlation between road and rail connectivity and the numbers of jobs in each District. Improved connectivity could lead to the potential to increase the numbers of jobs in each District, if all other conditions are in place. This includes ensuring that there is a sufficiently large labour market in place, skills are tailored to the needs of employers, and appropriate employment workspace is provided for the needs of future employers. If these conditions are in place, we predict very significant impacts on the economy of the Midlands.

While the analysis shows journey time savings would bring large benefits for business, it may also encourage more vehicles onto the road network, which could lead to undesirable environmental impacts. Future investment in the strategic road and rail networks should therefore be balanced to maximise potential economic growth whilst minimising environmental impacts. Achieving this balance will be a key priority for Midlands Connect.

Overall, our analysis shows the very large benefits that could be achieved from improving connections in the Midlands. More work is now needed to assess where these benefits are likely to be concentrated, and to develop 'smart' objectives for our strategic road and rail networks.

In 2036, if journey times were cut by 20% across all of the intensive growth corridors



BUSINESS JOURNEY
TIME SAVINGS

£460 million

PER YEAR



AGGLOMERATION BENEFITS

£1.1 billion

PER YEAR



EMPLOYMENT IMPACT

306,000
additional jobs



LABOUR MARKET IMPACTS

£33 million

PER YEAR

Context

Midlands Connect is an initiative driven by Local Enterprise Partnerships and Local Authorities across the Midlands to ensure that the Midlands is fully positioned to influence future strategic transport funding programmes. It will make a compelling case for investment on the strategic road and rail networks post 2020, to maximise the economic growth potential of the Midlands, with a commitment to:

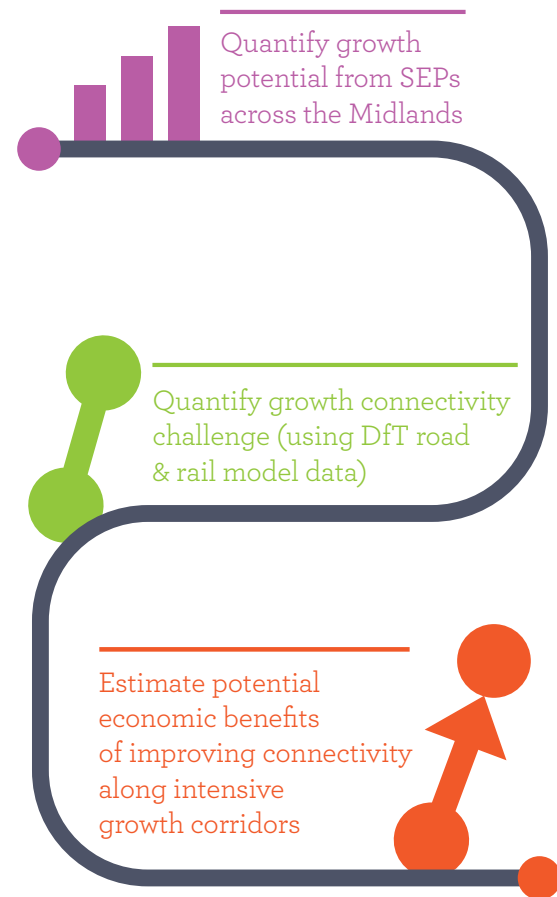
Develop the technical and economic case for investment; and

Develop a single powerful voice for the Midlands.

The Midlands Connect partners commissioned Atkins to assess the potential economic impacts of improving connectivity, both road and rail, across the Midlands. This has looked to the future: 2026 and 2036, following the completion of HS2 Phases 1 and 2. It has considered both the 'direct' impacts from reducing journey times for users of the road and rail networks, and wider impacts from stimulating increased business productivity and unlocking new jobs.

It has comprised three stages: quantifying forecast growth in the Midlands economy from a review of the ambitions in the Strategic Economic Plans (SEPs) for the Midlands, assessing the connectivity challenge using road and rail model data, and estimating the potential economic benefits from improving connectivity along key corridors in the Midlands.

Summary of Methodology

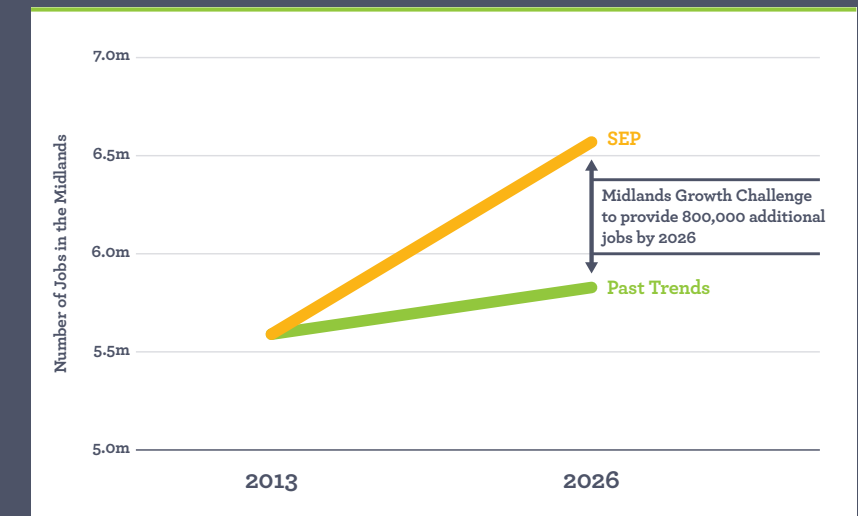


Our Economic Potential

The Midlands has huge economic potential, with a population of 11 million, 14 cities, 20 world-class universities and two international airports. The economy generates almost £200 billion GVA per annum, whilst exports totalled £50 billion in 2013, 16% of the UK total. There is a strong mix of high-growth industries, including logistics, advanced manufacturing, and professional services.

The Local Enterprise Partnerships published their Strategic Economic Plans (SEPs) in March 2014. These demonstrate strong ambitions for growth, with the potential to increase jobs by 72,000 per year, signalling a large acceleration from past growth trends. At present, there are approximately 5.6 million jobs in the Midlands. If past trends are continued, this would increase to around 5.8 million by 2026. If ambitions in the SEPs are realised, this could increase to around 6.6 million, an additional 800,000 jobs from the trend.

This will require a step-change in the economic performance of the Midlands. The recent Growth Deals are an important first step on this route to transforming the Midlands economy, but much more will be needed. The LEPs will be seeking further, more ambitious Growth Deals during 2015 and beyond. But there is an important role for improving strategic connectivity – both road and rail – in realising these ambitions to unlock a further 800,000 new jobs by 2026.



Most economic activity in the Midlands is concentrated in the major cities and larger towns, and these are closely connected. These also contain the largest, most important employment growth locations in the Midlands. Our evidence shows that there is huge potential for growth in these areas – to both increase productivity and to deliver new jobs through business growth, new start-ups and inward investment.

While we are looking at a large geographical area, in practice there are a focused series of corridors containing most of the economic activity and supporting the largest proportion of travel needs. Taking this into account we have identified a series of intensive growth corridors across the Midlands. These corridors contain the specific movements that were identified in the previous 'Conditional Outputs' work.

We have taken a structured approach to identifying these corridors:

- First, we have identified the main areas of growth, from review of the Strategic Economic Plans,
- Then we have overlain the Midlands cities and other strategic centres,
- From this, we have been able to identify a series of **intensive growth corridors**, based on the economic connections across the Midlands.

We have validated the corridors by examining travel data – on both the road and rail networks – which shows that these corridors are the main focus for economic connections across the Midlands.

In addition to the intensive growth corridors, we have identified four key **economic hubs** that are of critical importance to the whole Midlands. These locations deliver a significant proportion of the economic benefits to the whole Midlands. But they are also the points of convergence of intensive growth corridors or perform a wider gateway role. These places face significant capacity challenges, with a range of pressures on the transport networks. These create issues for the whole Midlands. But conversely, tackling the issues in these areas will help to unlock benefits for the whole Midlands.

The four economic hubs are **Birmingham, Solihull and the Black Country; Nottingham and Derby; Leicester and Coventry; and North Staffordshire**. The intensive growth corridors and economic hubs are shown in the map below. This also shows the importance of the Midlands in providing connections to the other nationally important growth drivers in One North, Oxford to Cambridge Arc and the Great Western Cities. The intensive growth corridors in this map have formed the basis of our analyses of the potential benefits of improved connectivity across the Midlands.

Corridor 1/1a: Birmingham – Coventry/Leicester – Northamptonshire – Milton Keynes and the South, and includes connections to Kettering and Corby and the East of England;

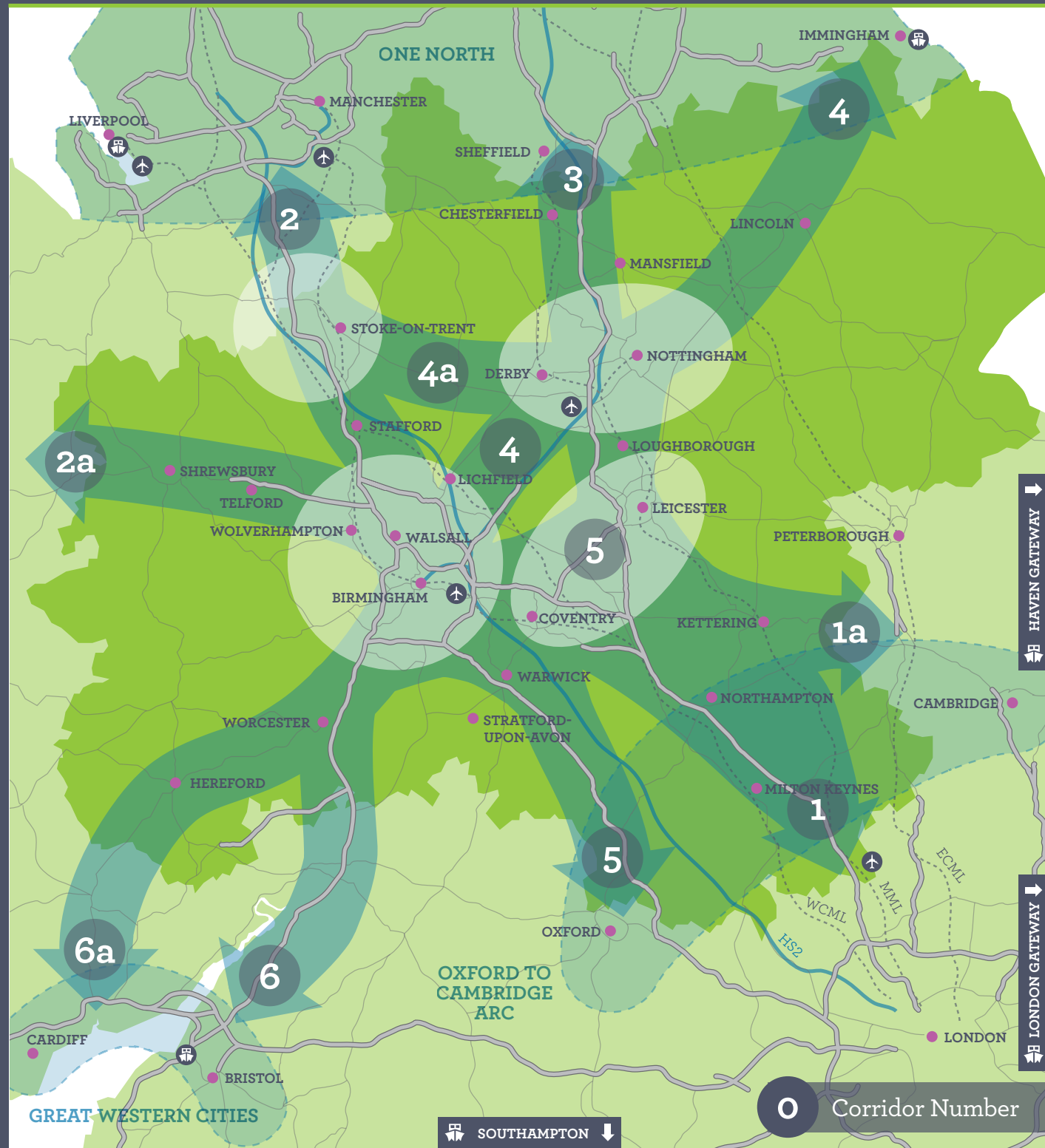
Corridor 2/2a: Birmingham – Black Country – Staffordshire and the North, and includes connections to Telford, Shrewsbury and North Wales;

Corridor 3: Nottingham and Derby – the North;

Corridor 4/4a: Lincoln – Nottingham – Derby – Birmingham and Nottingham – Derby – North Staffordshire

Corridor 5/5a: Nottingham – Leicester – Coventry – Warwick and Thames Valley, and includes connections from Leicester to Birmingham;

Corridor 6/6a: Birmingham – Worcester – South West, and includes connections to Hereford and South Wales.



Our Connectivity Challenges

There are significant connectivity challenges that will constrain the ability of the Midlands to realise its ambitions for growth. Whilst the Midlands lies at the heart of the UK's road and rail networks, the mix of long-distance, regional and local travel needs is placing heavy demands upon them.

The Midlands motorway network is subject to heavy congestion, with traffic delays and poor journey reliability, meaning that businesses, commuters and leisure travellers have to schedule additional time into the journey to give confidence that they can arrive at destinations on time. This wasted time significantly increases the direct costs of travel, impacts on business productivity and is constraining the potential for business growth. Increased demand for travel in the Midlands will place the system under further strain, increasing costs of travel and constraining job creation. The analysis completed to date highlights that we will need to tackle congestion hotspots as well as looking at the reliability, resilience and quality of journeys provided by the strategic road networks.

There are fast, frequent rail links connecting large parts of the Midlands to the north and south, via the West Coast, Midland and East Coast Main Lines. However, there are major challenges travelling by rail between the Midlands cities, with long journey times and low service frequencies impacting on connectivity. This is a particular issue for the more rural areas such as The Marches, Worcestershire and Lincolnshire as this makes travel by rail inconvenient, leading to and increased reliance on car travel and reducing the scope for interaction between our cities. In particular, the slow speeds between the key regional cities of Nottingham and Birmingham highlights the need for improvements to be made to the classic rail networks in advance of HS2 Phase 2 which is scheduled for completion after 2030.

As connectivity between cities becomes more important in future, this will significantly constrain the capacity for growth in the cities across the Midlands. There is also an increasing problem of capacity and crowding on services entering and crossing Birmingham. This will cause problems both in accommodating growth in Birmingham and in improving rail connections across the whole Midlands.

The international gateways at Birmingham Airport and East Midlands Airport are critical to the whole Midlands economy. Currently Birmingham Airport acts as a business gateway to major global markets, including China, and East Midlands Airport is the UK's most important air freight hub outside London. Both Birmingham and East Midlands Airports have ambitious growth plans for the future which will support the growth of the wider Midlands economy. Effective surface access links to these hubs are therefore critical to ensure that they can operate effectively in the future. Both airports are challenged in this respect, with East Midlands Airport only accessible via road and Birmingham Airport located adjacent to congested strategic road links and also not having direct rail links to the East Midlands.

High Speed 2 will transform north-south travel, bringing Birmingham within 40 minutes and the East Midlands within one hour from London. It will also significantly improve connections between Nottingham and Birmingham. However, it will be critical to develop full connectivity packages to fully capitalise on the opportunities provided by new stations serving the West Midlands, East Midlands and North Staffordshire. It will also be important to reconfigure classic rail services to better meet the connectivity needs of the whole Midlands, including Northampton, Coventry and Leicester. However, prior to the arrival of HS2 and in particular the Phase 2 links, it is vital that the classic rail network continues to be enhanced and services improved to enable the continued growth of the Midlands economy.

Our analysis shows that there will be large economic benefits from improving road and rail connectivity in the intensive growth corridors, by reducing the costs of travel, increasing output by facilitating business clustering, and unlocking job creation in our growth areas. This will require concerted action to tackle the connectivity challenges that we have identified.

Highways England and Network Rail are in the process of undertaking Route Studies across the Midlands to inform investment strategies post 2020. There are also medium to long-term opportunities to deliver HS2 Growth Strategies to fully capitalise on the opportunities for the whole Midlands. Midlands Connect will provide the mechanism to inform and draw together these elements into a single strategy that delivers much more than the sum of the parts



Our Forward Programme

We recognise that this analysis is just the starting point in developing our programme of work for Midlands Connect. The chart below shows the journey for Midlands Connect: our next steps are to identify which connections in the Midlands matter most, undertake research to understand the actual connectivity needs of the diverse business community across the Midlands, and identify and assess potential options. We intend to develop a preferred package of measures by January 2016.

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| Conditional Outputs - Jul 2014 | Midlands socio-economic baseline, growth outlook & transport barriers to growth |
| Economic Impact Analysis - Apr 2015 | Economic impact of improved strategic transport connections in the Midlands |
| Objectives for Corridors & Hubs - Jul 2015 | Clarify specific connectivity challenges and objectives for key corridors and economic hubs in the Midlands |
| Business and Logistics Research - Jul 2015 | Targeted research to better understand connectivity needs of different business sectors across the Midlands, to include business services, manufacturing and logistics |
| Option Generation & Appraisal - Sep 2015 | What transport solutions will deliver these strategic connections? To include scheme development and appraisal. |
| Preferred Package & Funding - Jan 2016 | Midlands Connect Proposal: Preferred Transport Priorities for the Midlands clearly defining the economic 'prize' on offer |

During 2016 and 2017, we will be using this evidence to directly influence the development of HS2 Growth Strategies, and the Route Study work for Highways England and Network Rail. This will ensure that we develop a truly multi-modal approach, which will provide effective choices for travel between our towns and cities, and enable the Midlands to fully meet its role as the UK's central powerhouse.

Midlands Connect Programme

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