



BSA - The Business Services Association

Response to the National Infrastructure Commission Consultation

January 2016

Improving connectivity between cities in the north of England

1. To what extent are weaknesses in transport connectivity holding back northern city regions (specifically in terms of jobs, enterprise, creation and growth, and housing)?

A lack of connectivity affects business investment, with the rapid movement of goods, services and labour hindered by inadequate transport links. The services industry thrives when people are in close proximity to each other. The City of London for example is only one square mile, yet was estimated to have contributed £35bn in national output in 2012¹. From the business services sector point of view, our industry is more widely spread than comparable industries, such as financial services. A lack of investment in cross country connections, including within and to the north, would likely have a detrimental impact on the industry.

A better connected northern region sets the conditions for improved economic growth by reducing journey times and increasing access to jobs in urban centres. HM Treasury analysis² shows that successfully rebalancing the economy will add £44bn in gross value added in the North by 2030. Transport connectivity will be a key factor in ensuring this ambition is realised. This will help the North of England become a more attractive place for businesses to invest, which in turn will drive further infrastructure investment.

2. What cost-effective infrastructure investments in city-to-city connectivity could address these weaknesses? We are interested in all modes of transport.

Improving rail connectivity, so that journey times better relate to distance in miles, should prove cost-effective in the long run, due to associated improvements in productivity and value added. Smart Motorways offer another value-for-money option for improving connectivity between the North's major urban hubs. According to the Department for Transport the smart motorway schemes already planned will add 292 miles of road capacity across the UK by 2021³.

The government's Roads Investment Strategy will see major investment in the Strategic Roads Network and improvements in connectivity. Decision-makers must ensure that these plans are coordinated with regional plans that fall outside of Highways England's remit. A framework for holistic planning should be proposed whereby decisions at a regional level can be tied in with strategic planning by both Highways England and the Department for Transport.

The North of England's transport system has not been significantly invested in for a number of decades. The region finds itself in a similar position to London in the early 1990s, which has since seen investment and integration take place across its 32 boroughs. The north has an additional difficulty in not having an obvious centre, unlike London. In order to see city-to-city connectivity

¹<https://www.cityoflondon.gov.uk/about-the-city/about-us/Documents/the-uk-world-class.pdf>

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/427339/the-northern-powerhouse-tagged.pdf

³ <https://www.gov.uk/government/news/over-15-billion-of-investment-awarded-to-upgrade-motorways-in-england>



improved, a clear vision for the North's transport future must be put forward and the proper experience and knowledge applied to realising it.

3. Which city-to-city corridor (s) should be the priority for early phases of investment?

As the two largest urban economies in the North of England, improving connectivity between Leeds and Manchester is the clear priority for investment. At only 35 miles apart, they are closer to each other than both are to London and Birmingham, the UK's two largest cities in terms of GDP. Despite this relatively short distance, a typical journey time between the two is approximately 50 minutes. By comparison, London to Reading, which are a similar distance apart, takes on average 30 minutes by train. The importance of these two cities is reflected in the tax receipts they both generate easily being the highest of all cities in the North⁴.

The Leeds-Manchester corridor needs to become super-connected as it is central to the North's economic story and future prosperity. Better connectivity between the two is only the start of the process needed to ensure growth in the region, with Combined Authorities in Leeds, Manchester and beyond needing to coordinate on investment, particularly from abroad. As a priority, Yorkshire Combined Authorities should focus on their relationship with Manchester.

The National Infrastructure Commission has correctly identified east-west connectivity in the North of England as a priority and all the economic data points to the critical importance of the Leeds - Manchester connection. However, beyond this the importance of the links to Liverpool and Chester from Manchester and the links to Hull, York and Sheffield from Leeds needs to be recognised and existing connectivity should be carefully examined. HS2 rightly recognises the importance of Leeds and Manchester. However, in addition to boosting these locations, they should also be seen as the hubs for connections to other regional cities and Combined Authorities.

From a wider strategic standpoint, the Northern Powerhouse idea will work best when relevant stakeholders think of the North of England in a single, coherent way.

4. What are the key international connectivity needs likely to be in the next 20-30 years in the north of England (with a focus on ports and airports)? What are the most effective way to meet these needs, and what constraints on delivery are anticipated?

A lack of available investment, both from the public and private sector, is likely to be the main constraint on improving international connectivity. The delays associated with airport expansion in the South-East demonstrates the stringent tests applied to upgrading and constructing new airport infrastructure. Despite this, as the UK's only two runway airport outside of London, Manchester Airport offers significant potential for connecting the North to emerging global markets.

A number of major northern cities such as Liverpool and Hull have ports and as such increasing capacity in this area could improve international connectivity. Whilst unlikely that a new port will be built in one of the North's coastal towns, options for adding to existing capacity should be explored.

The National Infrastructure Commission should examine options for integrating HS1 and the planned HS2 into the wider railway network. The planned HS2 connection to Crossrail at Old Oak Common will

⁴ <http://www.centreforcities.org/wp-content/uploads/2015/07/15-07-06-Mapping-Britains-Public-Finances.pdf>



substantially improve midland and northern connectivity to Heathrow. Further options for this style of rail integration should be explored and planned where feasible, with connections to the north a key consideration.

5. What form of governance would most effectively deliver transformative infrastructure in the north, how should this be funded and by whom, including appropriate local contributions.

Government, industry and local authorities have long used a variety of different measures to fund local, national and international infrastructure. It should be noted that there is no ‘silver bullet’ funding mechanism and that individual projects should be assessed based on location, value added, cost and construction time, amongst other considerations. Government funding should be coordinated between relevant bodies and be stable, without sudden withdrawals of resources. This will in turn give business the confidence to invest in the North, knowing that a steady stream of infrastructure investment is ongoing.

In terms of governance, bodies such as Transport for the North and Transport for Greater Manchester provide a focal point for the delivery of transformative infrastructure. These organisations should have a clear strategy which isn’t regularly or radically changed without good reason. Transport for the North can perform a similar role to Transport for London in bringing together pre-existing transport bodies covering the northern region. Whilst it is important that Transport for the North becomes greater than the sum of its parts, there exists a tipping point where it becomes too broad. Relevant stakeholders should seek to ensure this is avoided.

Large-scale transport infrastructure improvements in London

1. What are the major economic and social challenges facing London and its commuter hinterland over the next two to three decades.

According to Centre for Cities, between 2004-2013, London’s population grew faster than any other of the UK’s top ten metropolitan areas⁵. The Greater London built-up area is nearly five times larger than the next largest of Greater Manchester. This means London has unique infrastructure pressures.

High house prices, coupled with population growth, will likely see more people move to the outskirts of London in search of cheaper dwellings. This development will necessitate improvements to suburban train lines such as Thameslink, Southern and Chiltern Railways in order to cope with increased demand along with a more positive and ambitious residential and mixed use development at and around local stations (both existing and planned). A limited amount of track space already hinders these often overcrowded services, a difficulty that will be exacerbated by a lack of investment and redevelopment.

This picture of steady, rapid growth means London’s already strained transport network will face increasing pressure. Crossrail will add 10% capacity to the capital’s rail network, however former TFL Commissioner, Sir Peter Hendy, has previously said that it will be ‘immediately full’ upon opening.

⁵ <http://www.centreforcities.org/wp-content/uploads/2015/01/15-01-09-Cities-Outlook-2015.pdf>



This therefore suggests that a second major rail line is needed across London and the BSA welcomes proposals to explore the construction of Crossrail 2.

As with the first Crossrail, refurbished and increased station infrastructure will be a critical component of the project. Stations should be viewed as centres of their community, providing a basis for growth and development. New and improved stations with stable levels of investment can act as a catalyst for both housing and business development. In London especially, proximity to a train station is often a key consideration for someone looking to buy a home. Similarly easy access to transport links often affects a business' location decision. It is imperative that decision-makers take a whole community view of an individual project when judging its merits.

2. What are the strategic options for future investment in large-scale transport infrastructure improvements in London - on road, rail and underground - including, but not limited to Crossrail 2?

Crossrail 2, similar to the original Crossrail, offers London an opportunity to add significant capacity to its transport network. As previously mentioned, if Crossrail is full upon opening in 2018, the need for additional capacity will be immediate. The BSA would therefore encourage the development of the Crossrail 2 project as rapidly as is appropriate and necessary. Crossrail 2 will mean the East-West and North-South corridors of London will be served by a high-tech, far reaching and modern rail service. It also creates an opportunity to plan significant new housing above and around many of the proposed new stations which needs to be seen as an integral part of the Crossrail 2 project and not just an afterthought.

Additionally, the Commission should examine closely options for renovating and rebuilding parts of Euston station. As a key hub station, providing access to the North West and Midlands it is already overburdened and in need of investment. Factor in Euston's role as HS2's London hub and proximity to a proposed stop on the Crossrail 2 route and the need to substantially upgrade the station is clear.

Crossrail should not be the only means by which London seeks to expand its intra-city rail service. The capital has already seen new rolling stock introduced on the tube network, such as on the Metropolitan Line, Hammersmith and City Line and Victoria Line in recent years. A number of planned extensions will increase the reach of the tube network, helping create jobs. According to TFL, the Northern Line's Battersea extension will create 24,000 jobs and 18,000 new homes by 2020⁶. The National Infrastructure Commission should explore the possibility of further tube extensions as London continues to grow both in terms of people and square miles. The business case for individual projects and investment, particularly the strategic and economic case, are key to working through prioritisation and economic impact. It is crucial that the business case is cross-agency, able to compare a range of transport and other infrastructure investment.

3. What opportunities are there to increase the benefits and reduce the costs of the proposed Crossrail 2 scheme?

Starting construction on Crossrail 2 sooner will increase the benefits of job creation and adding capacity. The original Crossrail provides a bountiful source of construction workers, designers and

⁶ <https://tfl.gov.uk/travel-information/improvements-and-projects/northern-line-extension>



engineers with much needed experience of building a brand new, cross-city, subterranean railway line. Lengthy delays in beginning construction risks this pool of workers dissipating and being committed to alternative projects. Government must offer assurance and clarity as to whether and when Crossrail 2 will be built. As soon as this is offered, businesses can begin the necessary training and upskilling of workers needed to deliver the project.

The BSA urges the government to recognise the benefits of allowing for a seamless transition between major infrastructure projects. Crossrail and Crossrail 2 are an obvious example, being in the same geographical location, requiring the same equipment and demanding the same skills. The National Infrastructure Plan for Skills estimates a shortfall of nearly 400,000 construction and engineering jobs by 2020⁷. A lack of seamless transition between projects will exacerbate the problem.

The option of phased implementation should be looked at, which could mean that some of the Crossrail 2 infrastructure is not only built, but in operation ahead of 2028. This could allow for increasing London's transport capacity gradually and earlier than if the line was opened all at once. Particular attention should also be paid to development at key nodal points, where a number of major train lines will meet. This in turn should create 'spin-off' regeneration opportunities for housing and businesses to develop in these nodal points where they otherwise wouldn't have.

4. What are the options for the funding, financing and delivery of large-scale transport infrastructure improvements in London, including Crossrail 2?

Tax Increment Financing (TIF) offers a particularly beneficial structure for funding large-scale transport infrastructure improvements in the capital. This is due to the relatively high-concentration of businesses, particularly around Central London. TIF works by dedicating a proportion of future tax revenues (normally business rates in the case of the UK) for infrastructure and development. The improved connectivity derived from such projects would usually see an increase in business rate revenue, providing a viable option for funding large-scale transport infrastructure. However, given that councils will soon be allowed to keep a portion of their business rate revenues, it will require coordination across all of London's boroughs.

In addition, opportunities for significant residential development at and around new stations and transport interchanges creates an opportunity to secure a mix of capital receipts and new revenue streams to support new transport investment.

As raised in the 2015 Autumn Statement and Spending Review, the pooling of local government pensions funds offers a potentially significant source of funding for infrastructure investment. Pooling the pension funds of London's local authorities, as well as possibly including other bodies such as Transport for London, will allow a greater single pot of investment. Pension funds have the advantage of being able to invest in projects which look longer-term. Infrastructure investment is ideal for pension funds as it offers very low risk due to being underwritten by the government and delivering steady, long-term returns.

In order to support the effective delivery of large-scale transport infrastructure, it is important that an ambitious but realistic time-frame for completion is put in place. A recent National Audit Office

⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464354/NIP_for_skills_final_web.pdf



report said a project with lengthy timescales negatively affect the continuity, whilst short timescales can make delivery a virtual impossibility⁸.

5. How have major metropolitan areas in other countries responded to similar challenges and priorities? Are there any lessons to be learned and applied?

BSA members have experience of constructing major infrastructure projects across the globe, including, but not limited to, Canada, U.S.A. and Dubai. As with the UK, stability is key to the success of any infrastructure programme, with constructors reliant on the assurance that long-term projects will remain funded and immune from sudden changes or cancellations.

Singapore and Hong-Kong, as major, densely packed metropolises with high demand for transport infrastructure have taken the approach of 'upwards not outwards'. Given the limits on space that exist in both cities, particularly Hong-Kong, projects are being proposed and implemented that will see transport systems make use of space above the city rather than spreading outwards.

Improving how electricity demand and supply are balanced

1. What changes may need to be made to the electricity market to ensure that supply and demand are balanced, whilst minimising cost to consumers, over the long-term?

In August 2015, the BSA produced a policy paper which called for the publication of a National Energy Security strategy to act as a sub-section of the National Infrastructure Plan⁹. This will allow for better understanding of the government's approach to energy security. Such a strategy would allow a clearer comprehension of where the government plans to invest in energy generation. With a significant proportion of the UK's power generating capacity due to come offline within the next ten years, clarity on future supplies is crucial to maintaining a healthy balance between supply and demand.

The UK needs a range of solutions with a diverse energy mix in order to increase the reliability and stability of its power supplies. Nuclear, particularly with the government's planned developments at Hinkley Point, Bradwell and Sizewell can provide a baseload of power supply. Beyond this, the development of renewables should be encouraged, with a focus on bringing down their price and improving their reliability.

2. What are the barriers to the deployment of energy storage capacity?

The lack of a clear, codified, long-term energy security strategy and stalling construction of new generating capacity presents a barrier. If the market doesn't know where and when future supply capacity is due to come online, it subdues confidence that it is worth investing time, money and skills into the deployment of storage capacity. Energy storage will become of increasing importance, especially as the renewables share of the energy mix increases in the short to medium term. As such, government guarantees may be required to boost market confidence and encourage investment in this vital piece of infrastructure.

⁸ <https://www.nao.org.uk/report/delivering-major-projects-in-government-a-briefing-for-the-committee-of-public-accounts/>

⁹ http://bsa-org.com/uploads/publication/file/185/BSA_-_Energy_Security.pdf



Specifically, there is a need to review the regulatory demands on the providers of large scale energy storage as the current system is clearly not designed in a way that supports new provision. At present, energy storage deployment requires a generation licence whilst also being treated as a consumer.

To make a meaningful impact, the BSA considers that deployment should be at a transmission network scale. However, this scale of development will often require consent through the National Strategic Infrastructure Planning regime. This, therefore, points to the importance of a strategic plan for investment and deployment as opposed to a series of urgent demands resulting from reduced capacity in the system.

Energy storage assets in the UK are treated as generators under current regulations. One of the key opportunities for deployment of energy storage is to enable providers to defer or avoid network reinforcement costs. This can help alleviate the high capital costs associated with the construction, operation and maintenance of energy storage facilities. Increasing the provision of battery storage should be explored as costs have declined 50% since 2010 and are expected to see another 50% decline by the end of the decade. The structure of the Capacity Market should be examined as well to all storage onto a more levelled playing field rather than locking in 'old world' solutions.

3. What level of electricity interconnection is likely to be in the best interests of consumers?

The deployment of electricity interconnection offers benefits in terms of security, by adding an alternative source of energy supply to the grid. However, the UK runs the risk of losing control over its energy supplies if we become overly-reliant on foreign energy sources. Interconnection should not be seen as an alternative to the construction of new sources of energy generation so that improving the reliability of energy supplies remains primarily under domestic control.

Another potential advantage of further interconnection with Europe is that the associated emissions remain in the country of generation. Therefore the displacement of emission neutral imports from the continent would also help to meet carbon and other environmental targets. Despite this and despite interconnector developers having access to the 'cap and floor' regulated regime, the UK is still set to miss its 2020 EU target of 10% interconnection. It appears that the main hurdle to achieving this target is securing finance. The Green Investment Bank could be seen as an option for providing funds and partnership on future interconnection projects.

4. What can UK learn from international best practice in terms of dealing with changes in energy technology when planning to balance supply and demand?

Given the complex and often expensive nature of balancing energy supply and demand, nations which are open to innovation, including from business, are more likely to see encouraging results. The Netherlands, for example, has demonstrated the 'Energiesprong' programme, which manufactures and fits energy saving solutions for both houses and businesses offsite and within three days. Solutions such as these offer a more holistic and less piecemeal approach to reducing energy demand. The Smart Meter programme offers an additional means of further reducing energy demand and the BSA encourages its deployment as soon as is feasibly possible.