

ACE Evidence: London's Transport Infrastructure

ACE response to the:

National Infrastructure Commission Call for Evidence

8 January 2016

About ACE

As the leading business association in the sector, ACE represents the interests of professional consultancy and engineering companies large and small in the UK. Many of our member companies have gained international recognition and acclaim and employ over 250,000 staff worldwide.

ACE members are at the heart of delivering, maintaining and upgrading our buildings, structures and infrastructure. They provide specialist services to a diverse range of sectors including water, transportation, housing and energy.

The ACE membership acts as the bridge between consultants, engineers and the wider construction sector who make an estimated contribution of £15bn to the nation's economy with the wider construction market contributing a further £90bn.

ACE's powerful representation and lobbying to government, major clients, the media and other key stakeholders, enables it to promote the critical contribution that engineers and consultants make to the nation's developing infrastructure.

Through our publications, market intelligence, events and networking, business guidance and personal contact, we provide a cohesive approach and direction for our members and the wider industry. In recognising the dynamics of our industry, we support and encourage our members in all aspects of their business, helping them to optimise performance and embrace opportunity.

Our fundamental purposes are to promote the worth of our industry and to give voice to our members. We do so with passion and vision, support and commitment, integrity and professionalism.

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Q1. What are the major economic and social challenges facing London and its commuter hinterland over the next two to three decades?

The story of London over the past twenty is one of success, a story that has seen the capital move from a declining, unattractive place, to one where people want to come and live and work, and in which companies wish to invest. The cities transport networks have, understandably, come under increased pressure due to this trend, and could be a significant hindrance to growth in the coming years.

In 2015, the capital's population reached 8.6 million people, surpassing the previous peak seen in 1939. The GLA's London Infrastructure Plan 2050 estimates that London's population is likely to rise by around 37 per cent to 11.3 million by the middle of this century. The higher end estimate suggests it could go as high as 13.4 million, however.¹ This growth equates to roughly two tube trains per week!

In addition, estimates suggest that there will be an additional 1.4 million jobs in London by 2050, an annual increase of 0.71 per cent, with two-thirds of these expected to be located in the inner-city boroughs. On top of this, there will be increases in visitor numbers, with the best estimates being that by 2022 around 21 million tourists will come, an increase of 40 per cent in the decade since 2012.²

In addition, and although outside the remit of the National Infrastructure Commission's terms of reference, an increase in visitor numbers will see added pressure on London's air connections. Further capacity will be required, as will the connections and ability to move passengers on the transport links to and from wherever this is provided.

All of this means there are obviously significant implications for demand, with Transport for London estimates suggesting that it will increase by up to 50 per cent, with traffic on the Underground and rail networks rising by 60 and 80 per cent, respectively.³

This will all occur in the context of increasing economic, financial, and fiscal devolution as central government continues to reduce the amount of subsidy from Whitehall to ensure the elimination of the UK's deficit. Future mayoral administrations must therefore ensure the capital must develop its own innovative funding mechanisms for the operation of Transport for London (TfL), with the aim of delivering a cost effective service for London's residents.

¹ *London Infrastructure Plan 2050 A Consultation* (2014), Greater London Authority, p. 7

² *Ibid*, p. 8

³ *Ibid*, p. 9

Q2. 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?

- How should they be prioritised, taking account of their response to London's strategic transport challenges, including their impact on capacity, reliability, journey times and connectivity to jobs?
- What might their potential impact be on employment, productivity and housing supply in London and the southeast?

The needs of London in terms of its transport infrastructure, fall into roughly three categories: capacity, connectivity, and capability. There are growing challenges around and increasing and an aging population, and all that entails in terms of economic and social activities. It is, therefore, vital that our transport networks have the ability to carry increasing and diversifying demand, that they connect with where people need them to, and that organisations and individuals have the resources and abilities to deliver and make use of them.

As stated already, by 2050 the capital will need 50 per cent more public transport capacity. Crossrail 2 is, therefore, a vital project that will provide much-needed capacity on a network that will soon have to cater for ten million residents, as well as numerous commuters from outside London.

Transport for London has a swathe of other initiatives, however, including the existing upgrade programme to the Underground network that will see 36 trains per hour on the Jubilee, Piccadilly, and Northern lines by the mid-2030s. This will increase peak capacity on these lines by between 20-50 per cent.

There are also plans to extend the Bakerloo line south from Elephant and Castle to Lewisham and beyond, transforming connectivity in South London. The modernisation of key central London stations including Holborn, Euston, Victoria, and Waterloo, that will also be a catalyst for the growth and development of the surrounding areas, is also proposed.

On the rail network, the long term aim of the Mayor's Office and Transport for London is to gain further control of the commuter routes in and out of the capital. This has the potential to transform the rail network inside London's boundaries into the equivalent of a second tube network, in terms of capacity.

Through closer collaboration with Network Rail to provide more trains and carriages per hour, the authorities in London feel it is possible to carry twice as many passengers than at present, reducing crowding.

As for London's roads, in terms of strategic interventions, again Transport for London has significant plans in this area, with up to three new river crossings proposed for the capital east of Tower Bridge and a new inner orbital tolled road tunnel that could see congestion reduced by 20 per cent in central London.

ACE's members feel that the best way motorists can be supported is to provide them with a reliable asset, i.e. the road, with as little disruption as possible and as cost-effectively as possible. They feel this can best be achieved by closer collaboration with all the parties involved in this process, from Highways England, TfL, the GLA, and the boroughs.

This collaboration will have the same benefits as those outlined above. More innovative solutions will be delivered with less disruptive last-minute changes that add cost and time onto a project. Motorists will therefore be able to enjoy a better quality road and journey, traffic will flow more smoothly, and the business of the capital will be conducted more efficiently.

Continued support should also be provided for efforts to promote cycling in London, with the provision of improved infrastructure, particularly along the capital's roads and in the form of the Cycle Superhighway network. For example, 'rest areas' along the routes could be introduced with covered areas, access to tools, and volunteers from the London Cycle Campaign during weekends. This could help people adjust their bikes and provide support for those cycling with children.

Much of the work to develop these options is already being carried out by Transport for London, along with the correct staging and prioritisation of the projects across all modes of transport. ACE would encourage any recommendations from the National Infrastructure Commission to take this into account and to ensure that the construction sector's desire for certainty through a visible and stable pipeline is met as far as possible.

Q3. What opportunities are there to increase the benefits and reduce the costs of the proposed Crossrail 2 scheme?

Crossrail 2 on its own has a cost-benefit ratio that will see around £1.80 generated for every £1 invested in the project, according to research by consulting firm PWC. This increases to a range between £2 and £2.60 when wider economic benefits are taken into consideration according to the same research and from data provided by AECOM, the global engineering firm. 4 London First in their report, Funding Crossrail 2, estimate that it could be even higher, at £4.10⁵

⁴ *Crossrail 2 Funding and Financing Study* (2014), PWC, p. 11

⁵ *Funding Crossrail 2* (2014), London First, p. 6

There exists significant opportunities, therefore, to dramatically increase the already significant benefits to London and the whole UK when constructing and operating Crossrail 2. Much of this will involve factors beyond the scope of a purely transport-focussed project and hence will need input from a multitude of stakeholders and interested parties, and require broader consideration than other projects.

There will be a massive opportunity for significant regeneration all along the route of Crossrail 2, from the area around Shepperton and Chessington in the South to Cheshunt and the upper Lea Valley in the North. This could represent a substantial number of jobs, housing, and prosperity in areas where it could do a lot of good.

In addition, this is an excellent opportunity to line up major infrastructure projects in order to get the most out of supply chain efficiencies, skills developments, and therefore save on costs. London is embarking on a number of projects that require, for instance tunnelling skills and if schemes are planned properly it will be possible for these trained experts to transfer from one project to another seamlessly.

This will have the benefit in the first instance of training up a large number of skilled experts, benefitting them and the wider economy. It will also enable the UK to position itself as a global expert in tunnelling as our engineers are trained up and gain first-hand experience of what it is like to engage in this kind of work. Finally, there will then be little need to scour the world for expertise, driving up costs, and relying on externalities not influencing the labour market.

This is just one example as well, there are multiple disciplines that will be needed to undertake a project such as this and that present an excellent opportunity in training and developing an expert workforce.

Finally, committing early, planning thoroughly, and lining the project up so that it fits seamlessly into a programme of other large-scale infrastructure projects will ensure that all companies involved in the process can themselves plan effectively, allocate resources efficiently, and enable the project to be delivered on time and on budget. Certainty is the key to delivering a project like Crossrail 2.

Q4. What are the options for the funding, financing and delivery of large-scale transport infrastructure improvements in London, including Crossrail 2?

- What is an appropriate local and regional contribution - given the potential distribution of benefits to business, residents, transport users and the wider economy - and how could this be achieved?
- What innovative funding mechanisms could be considered to support delivery of key schemes?

ACE supports a mixed approach to the funding and financing of London's transport infrastructure improvements, especially when it comes to Crossrail 2.

Specifically on Crossrail 2, ACE feels that much good work has been done by the London First Crossrail 2 working group, which published a report looking into this particular issue, and would encourage the National Infrastructure Commission to give strong consideration to its recommendations.⁶

Based on 2012 prices this would involve a grant from central government of around £4 billion, while Network Rail would contribute £2 billion to a final cost of around £16 billion, subject to an exact contingency figure that Treasury insists on incorporating into the total. These figures, however, would be more than recouped by government and the UK's rail infrastructure owner through increased tax revenues and reduced congestion on the existing network.

Contributions totalling just over £6 billion from the existing Transport for London farebox and borrowing based on Crossrail 2's potential farebox should also form a significant part of any funding of the project. Contributions from developers, as well as the potential for intensified development of land in and around stations could also bring in around £3.5 billion, along with another £2.5 billion in the form of council tax and business rate contributions.

A significant source of funding, however, could come from a greater amount of fiscal devolution. At present a mere seven per cent of all the tax paid by London residents is retained by the Mayor of London and the boroughs, while the equivalent figure for New York is around half.

Devolving control of property taxes, as well as lifting borrowing ceilings, in conjunction with a parallel reduction in the grant from central government would see funding of around £5 billion made available for the Mayor of London. This could then be put to use on Crossrail 2, or indeed, other infrastructure projects in due course.

This last point is an essential one too, for funding future projects beyond Crossrail 2. This fits into the government's agenda around devolution, and would be consistent with measures implemented in other areas of the country such as Cambridge and Manchester. In addition, it could also help to meet the target of eliminating the deficit and paying down the national debt.

This kind of mixed approach should be one that becomes the standard for delivering large scale, long term infrastructure in London. The exact nature of the make-up of each element should be within the remit of Transport for London, however, with the options of

⁶ London First, *ibid*.

borrowing money, requesting funds from central government, eliciting contributions from developers and business partners, all contributing.

Ultimately, this will contribute to the certainty that the construction sector requires through the ability of Transport for London to plan into the longer term and fund projects itself without as much recourse to central government. In turn, Whitehall will benefit from increases in tax revenue and improved efficiencies in the capital.

Q5. How have major metropolitan areas in other countries responded to similar challenges and priorities? Are there any lessons to be learned and applied in London?

In ACE's view, there are three case studies of major metropolitan areas in other countries that have shown innovative responses to similar challenges and priorities that London is itself facing. These are Paris in respect of long-term certainty, Hong Kong in respect of innovative funding solutions, and New York in respect of devolution of powers.

We have that in Paris, the authorities there have developed an ambitious, innovative, and fully funded plan for almost every aspect of their transport network up to 2030. Known as 'Le Nouveau Grand Paris', this has allowed all those involved to plan thoroughly, align projects to enable the efficient allocation of resources, and ensure budgets and timetables were realistic and achievable.⁷

In Hong Kong, public transport is operated by the Mass Transit Railway (MTR) Corporation, one which posted a \$2 billion profit in 2012. It did this through 'value capture', taking advantage of the uplift in values and profits through the increased passenger traffic that is provided by their services. This can then go to subsidising further expansions and upgrades, all while keeping fares low.

Finally, as stated above, we have seen New York enjoy high levels of fiscal devolution, with around 50 per cent of all tax revenues raised in the city remaining there. A similar approach in London, with more of its funds being placed at the disposal of the Mayor, would enable greater decision-making ability and allow for increased certainty through improved planning.

⁷ *Le Nouveau Grand Paris* (2015), Syndicat des transports d'Île-de-France, http://www.stif.org/IMG/pdf/dpi_2015_ensemble-fiches-projets_mel_bis.pdf