CITIES AND INFRASTRUCTURE
Ensuring infrastructure continues to drive the UK economy
Introduction from Ian Liddell

Infrastructure is an enabler of growth, drives the economy and ultimately our national prosperity. The Government understands the link between infrastructure investment and economic growth, as shown by a recent statement from Chancellor Philip Hammond which sums up the significance of infrastructure to our national life: ‘Economically productive infrastructure directly benefits businesses. But families, too, rely on roads, rail, telecoms – and especially housing.’

The importance of infrastructure in boosting economic growth cannot be underestimated. We therefore welcome the government’s Industrial Strategy consultation as a starting point for better collaboration between government and the construction and infrastructure industry. We see the Industrial Strategy as an encouraging and sensible approach to tackle these issues through a comprehensive framework.

We hope that this paper contributes to the debate on how Government and the private sector can collaborate to improve the delivery of UK infrastructure and ensure that cities continue to provide the social and political environment that drives the nation’s prosperity.
MESSAGE FROM STEPHEN HAMMOND MP

This government understands that infrastructure can drive economic growth. It is clear that more productive economies and those with higher economic growth potential generally have better infrastructure.

The speed of technological change means that some of the infrastructure you might build in cities is no longer the conventional infrastructure that you see but I think that people are going to have to be receptive to other methods of transport. In certain urban centres it may be that fast walkways and driverless pods will play a part in the future. It may also be that we have a much different view in terms of how electricity is provided so that you see much greater capture of solar power which is then fed into the grid because of the increase in battery technology.

And what do we mean by infrastructure? It is road and rail but also housing, broadband expansion and how we deliver energy. So we need to keep open minds to infrastructure in the wider sense of the word.

The good news is that the National Infrastructure Commission aims to give you cross-silo thinking, which is important. Where we fail institutionally at present is that we do not have a minister for infrastructure, let alone a department for it, and that is really a problem because at a political level it needs a champion. Some argue that should be the chancellor and at one level it should be but at another level you need a minister to drive infrastructure in this country.

It is not at all clear yet that the Infrastructure and Projects Authority (IPA) is doing what it should be doing in making the government a more intelligent client that allows us to design, specify, procure and then manage. We have made a start but it has not gone far or fast enough and therefore perhaps not having the political drive behind the IPA is an issue that we need to consider.

A key challenge we face is that government does not have the expertise to design, specify, procure and manage projects. Some of that can be bought in but archetypally, if you look at the transport industry, who in government can say whether a project is the right one or is at the right cost? The solution is for the IPA to attract a cadre of people in from industry, probably on five to seven year contracts, who have completed projects and who can ask the right questions and give the right advice. This needs to happen so that government can become the intelligent client.

In terms of Brexit and the changing global economic climate, there are issues that we will have to confront. One is whether we will still have the access to labour? Is the government still going to have the vision to keep infrastructure at the forefront of driving economic growth in the future? Industry then needs to think about why it is that other countries attract overseas investment, including pension funds, yet in the UK we still do not have any real systematic way of getting private sector money into some of the bigger government schemes. The government mantra that sovereign debt is cheaper is fine but it cannot be the only way. Some of the net investment we get back from Europe funds infrastructure in this country and that is clearly not going to be there in future so in a post-Brexit world how we fill that gap is key.

We also have to confront the fact that in this country we do not have an industry with big capitalisation. That inevitably raises questions as to what this country does in comparison to other countries. If you look at most of the other European countries they have at least one, and usually two, very big capitalisation ‘all across the waterfront’ firms that are able to provide a complete solution, be it private sector or government projects. Although we have some very, very high quality firms in all areas, what we do not have is anyone that pulls all those areas together and that undoubtedly has some issues in terms of the UK’s cost profile.

Stephen Hammond is MP for Wimbledon and a former Parliamentary Under-Secretary of State for Transport. He is also Chairman of the All Party Parliamentary Group on Infrastructure (APPGI).
While the Government has in recent years recognised the value of infrastructure as a generator of national development, we still have a way to go to realise the nation’s full potential because the UK infrastructure model has numerous shortcomings. Projects, especially the large ones, often take too long to come to fruition, funding is insufficient, there is over centralisation of decision making and a lack of a clear focus in government to coordinate projects. Furthermore, skills shortages are becoming acute and we need greater advocacy to promote infrastructure’s benefits to the general public. Critically, little progress has been made on formulating different financing models involving the private sector.

Yet whether transport, energy, communications or housing, infrastructure that has been wisely considered, targeted, funded and delivered becomes a powerful agent for revitalising the economy, whether at local, regional or national levels. Indeed, the development of our cities and the investment in their infrastructure interact to create the energy that drives the UK economy.

In this paper we will argue that the political and economic development of our cities must form a key part of the overall discussion around infrastructure investment. We argue that economic and social infrastructure is a core element in the functioning of an economy and an important generator of a nation’s future prosperity. We also highlight the economic, social and environmental benefits of infrastructure and examine the current obstacles in terms of realising those benefits.

In conclusion, we suggest ten opportunities for government – and also some for industry – that could go some way to improve the delivery of UK infrastructure and ensure that cities continue to provide the social and political environment that drives the nation’s prosperity.

We highlight the findings of a recent WSP | Parsons Brinckerhoff Industry Leaders’ Survey on attitudes to infrastructure. We also summarise the conclusions reached at our three recent infrastructure roundtables that brought together key figures from the industry.

This white paper has been conceived and written in conjunction with the Association for Consultancy and Engineering (ACE) and Infrastructure Intelligence magazine.
WHY INFRASTRUCTURE IS IMPORTANT TO THE NATIONAL ECONOMY

Our Cities and Infrastructure initiative focuses on raising the profile and importance of economic and social infrastructure for the future of the UK, particularly its cities. Well-conceived, planned, financed and delivered infrastructure is an enabler of economic growth, boosts productivity, raises living standards and increases public and investor confidence. Infrastructure investment generally has high employment multipliers creating jobs both directly, indirectly and by induction (greater spending).

The economist John Maynard Keynes recognised this in the 1930s, as do many of our current politicians and business leaders. Indeed, the recent WSP | Parsons Brinckerhoff and ACE survey of industry leaders found that 99% thought that the government should continue to invest in infrastructure projects, despite the decision to leave the European Union. The survey also revealed that 79% of those business leaders thought that the quality of our cities and public realm will be of increasing importance in raising our national competitiveness when we leave the EU.

Wisely targeted infrastructure investment is not a silver bullet. But it can rebalance the economy and connect cities and regions to internal and external markets for employment, goods and services. By unlocking latent development potential, it creates social and economic value, the quality of which can inspire future investment. In a recent survey undertaken by the CBIs, 94% of businesses report quality of infrastructure as important when planning future investment. Some economists have even estimated that every £1 spent on construction generates nearly £3 of economic activity.

As one of the UK’s largest engineering and professional services consultancies with over 7,000 people across the country, we have numerous specialist disciplines closely linked to infrastructure. We have been hugely encouraged by the government’s new industrial strategy consultation which we see as a starting point for better collaboration between government and the construction and infrastructure sectors. It is a promising and sensible policy to tackle these issues through a comprehensive framework. The National Infrastructure Plan initiative can also be seen as a strategic view on what needs to be done.

Recent government announcements concerning specific projects such as HS2, Heathrow, Hinckley and highways (to stimulate housing) have also been encouraging for the construction and infrastructure sectors. We need to capitalise on this momentum to make sure work starts on site as quickly as possible.

Public sector infrastructure investment not only boosts growth and productivity, it also helps housing. There are significant opportunities from HS2, Heathrow and highways projects to stimulate the level of house building the country needs in areas that would benefit the most from further development. A huge confidence boost for the UK would come from the certainty that these projects are going ahead, now. If the government boosts infrastructure, housing will surely follow.

TALKING HEADS

Cities must first get themselves into a structure that is accountable and effective, because in order to develop the potential of the city region you need leadership and an administrative machine. You need this to do the job and create the confidence to encourage the devolution in the first place.

The structure we are pursuing at the moment is a sub-regional structure. The combined authority is the larger of the effective vehicles that we are creating, but of course as we have seen with the Northern Powerhouse, you can have an accumulation of combined authorities in order to produce a regional relevance.

It is all about being part of a democratic process but huge forces are at work resisting it and they are not going to give in easily. It is therefore a question of creating pressures that prevail.

But talking is easy. I have spent 40 years of my life trying to achieve it with very limited results compared to what we need, what we should have and what every other country has got. I started off in the 1960s when we had 1,400 local authorities. We are now down to 400. We need 60.

In the past six years we have made more progress than in the rest of my life and it is an ongoing process. You see that in conversations that have been successfully concluded – the Northern Powerhouse, the Midlands Engine and in one or two other areas. Other ongoing discussions have a high prospect of being concluded and the process is underway, but there are challenges.

Devolution is not an absolutist concept, it is a partnership, so a balance must be struck with national needs as far as infrastructure investment is concerned. There is a role for central government in providing the main arterial connections but that is not to say that they cannot do it in conjunction with a well-informed local power base.

The London-centric focus has dictated the pattern of much of our investment and the Northern Powerhouse is a composition of traditional political bases but they agree that you need to link up the trans-Pennine communications.

In terms of funding development, the financial institutions want risk-free money and the Treasury wants to pass on the risk. Putting risk into the negotiations is always the stumbling block. We need to develop prototypes that the Treasury has approved in advance.

Surely there has to be a way of getting the private sector to commit to projects? I have a solution. For example, if you are going to build a public sector project for £100, then you go to the institutions and you say this is a £100 project. If it was done in the public sector it would carry all the cost overruns. So we will agree it is a £100 project and cost overruns will remain in the public sector. But the private sector is only prepared to put in £40 of the £100 because the rest is negative value. So we agree to that. The consequence is that the public sector is left with £60 investment and the overrun but it has got £40 from the private sector. I do not see why deals like that cannot be done because the public and private sectors know exactly what they are getting – a £100 deal for £40. The answer lies in the Treasury – it must come up with the schemes.

There is every sign that the government is pursuing a devolution agenda. I would wait to see how comprehensive it is but there are no grounds at all for thinking that the big urban conurbations will not pursue a devolution agenda. I have no doubt that if the government could get Newcastle and Leeds over the line with their deals then they would leap at it.

Where the infrastructure sector can play a role is that you should be making a big scene. “Why is my city being deprived of a devolution deal and all that entails because of the ‘amour propre’ of the little guys who run our councils?” That will get you a big story in the local press. It might make you enemies but it needs to be done.

Lord Heseltine is a former Secretary of State for defence, environment and trade and industry and a former Deputy Prime Minister under successive governments under Margaret Thatcher and John Major. Most recently he was a special advisor to the Cameron and May governments on regeneration and devolution issues.

1 WSP | Parsons Brinckerhoff / ACE survey of UK business leaders, Autumn 2016
2 Turning Momentum into Delivery CBI (AECOM Infrastructure Survey 2015
3 BBC News, July 2013
At its heart, a city is a place that generates connectivity by bringing together people, goods, services and ideas. When people are closer to each other, they can more easily trade, work and obtain goods. This connectivity is the source of a city’s value but this value is created by the building stock, infrastructure, laws and institutions that enable people to live both separately and communally with those with whom they conduct millions of economic and social transactions.

Once cities are established they often develop an economic and social resilience that allows them to evolve away from the initial economic forces that led to their creation. With time, cities can regenerate themselves and there are several reasons for this.

First is what economists label ‘forward and backward linkages’, which means that businesses prefer to be near to their suppliers and customers; this allows for reductions in cost, greater oversight of the supply chain and improved productivity.

Second, cities create pools of labour that benefit both workers and employers by increasing each’s value through specialisation and professionalisation. Third and probably more important, cities are processors of information which plays the leading role in the innovation driving sustainable growth.

All three of these factors are underpinned by the city’s infrastructure which is designed to enhance the benefits and value of urban living. Workers and businesses need to be housed; workers and customers must be able to travel between parts of the city; power is needed to light and heat buildings, schools are required to educate future generations, and parks and social spaces are required for quality of life.

To grow wealthy, societies must figure out how to produce more output per person. Sustainable growth relies upon a steady flow of new and better ideas which we call innovation. This innovation can be either physical, organisational or institutional but regardless of which type; it is the incubation of the city that allows this innovation to develop.

Cities provide the infrastructure that allows for the amplification of human capital, the fuelling of development and the employment of new ideas that are the bedrock of prosperity. When cities are governed badly or do not have the investment in the crucial infrastructure that they need we constrict the flow of ideas and let the machinery of innovative growth atrophy.

It should be noted that infrastructure can extend the wider influence of cities by spreading economic growth into the surrounding areas and into infrastructure/growth corridors.

**WHY INFRASTRUCTURE IS IMPORTANT FOR CITIES**

Our cities are the centres of commerce, finance, innovation and creativity, factors that are so necessary to maintaining living standards, attracting investment and fostering economic growth. That is why cities are growing faster than ever before, resulting in increasing numbers of people wanting to live in them.

Back to the future

The cities of the future will be much larger than today’s with ever-more people crammed into them. They will house an increasingly older population, placing stress on services to the elderly and a rising tax burden on young workers whose taxes pay for those services. They will be environmentally constrained, require a lower environmental impact of almost everything we depend on today, and as the climate shifts they will need more resilient infrastructure, buildings and economies.

This will place considerable pressure on our current and developing cities which will push them to their social and structural limits. The only way we can meet this challenge is to ensure that our cities (and regions) become smarter and are equipped with adequate and efficient infrastructure systems to become economically and socially transformational.

This means we need to think differently about how we use new infrastructure, whether buildings or transport, and embrace digital and SMART technology to ensure that infrastructure is in a perpetual state of future readiness.

Although all this presents glorious opportunities, it also gives rise to numerous challenges.
CITIES AND INFRASTRUCTURE: ENSURING INFRASTRUCTURE CONTINUES TO DRIVE THE UK ECONOMY

The UK achieves a lowly 24th position globally in terms of overall infrastructure quality (2016-2017 WEF rankings on global competitiveness).

London has had devolution for 17 years now and that has definitely had positives with coordinated planning, local control over police, fire services and crucially transport. Although that sounds broad, it is actually very narrow when you compare it to the freedoms and flexibilities we would like together with the boroughs.

At the moment we probably have the smallest control over the money that is already spent in London compared to any other city in the world. We would like to have greater control over the taxes raised and the ability to raise new ones.

The GLA and the mayor are very much focused on a twin-track approach – better spending the money that we already have, fiscal devolution and addressing the infrastructure funding deficit that London faces.

It might seem that the context for greater devolution is right, given the EU referendum result and the push for another referendum in Scotland, and with all regions wanting a greater say in how things are delivered in their area. Yet actual progress to date does not match the enthusiasm. For example, take the skills budget. It was flagged up two years ago and was to be devolved but 18 months later it was mentioned again and now there is still nothing organised. We need to make more progress as a country in devolving power to all our regions.

Influence and convening power are useful for the new mayors but there is a danger that that is all they will have unless as a country we make greater strides towards devolution. We need action on two key areas: public service reform and on fiscal matters – in other words how the money is spent and how the money is raised.

Engaging business around our plans for the capital is very important. There has been more consultation than there ever has been on any London plan. The mayor published “A City for all Londoners” which flagged up our direction of travel and we have had responses from London First and representative bodies. The deputy mayor for business and the other deputy mayors are also very much engaging with relevant sectors, and our advisory group for industry utilities is playing a key role too. We recognise that we need to specifically engage with business as an important sector with influence over what we are trying to do.

Apart all the talk of rebalancing the economy in favour of the regions, it cannot simply be a case of “We are just going to take money and resources away from London and send it somewhere else” because the national economy will suffer. This will have a knock-on effect on its ability to push money outside of London. Making London fall over benefits nobody.

Ideally there should be a national conversation with a balanced discussion about the nation’s needs – around a well-balanced, sustainable transport system, for example. And there needs to be more collaboration between the regions. Historically London has had some conversations with the wider south east about its connections, capacity and growth challenges but going forward we need to redouble these connections. We must have the same conversations along the key growth corridors beyond the wider south east – Manchester, Birmingham, Leeds. If we are going to be shortening journey times so much we need to discuss what that really means for growth as interconnected places.

London and the Core Cities have been mutually supportive on the growth agenda for a long while. Any antagonism towards London that is seen is mainly whipped up in the press and on social media. But we cannot be deflected from making the links between London and our national cities, all of whom understand the importance of the capital. That is not to say we should be complacent about people’s frustration over the lack of progress in their areas relative to London but we need to remain positive and united. Undermining London is not going to help the situation in the regions and is not in anybody’s best interests. We need the whole country to move forward together.

Jules Pipe is London Deputy Mayor for Planning, Regeneration and Skills.
Building on the Autumn Statement 2016, a new government initiative aims to grant greater devolutionary powers to the Greater London Authority (GLA) and London boroughs by utilising the DRAM model to finance infrastructure. A joint task force will bring together the GLA, TfL, London Councils, HM Treasury, Department for Transport (DfT) and Department for Communities and Local Government (DCLG) to look at piloting a DRAM model for a major infrastructure project in London. If the pilot is successful, it could provide a blueprint for other UK infrastructure projects.

Long-term agreements with developers could allow them to offset some of their higher costs incurred on say, contaminated or bad sites against their ‘easier’ sites. This might be facilitated by the Community Infrastructure Levy (CIL) which involves contributions from developers to support infrastructure investment.

We would like to see the UK move beyond five-year investment cycles (that drive Network Rail and Highways England capital programmes) to a more stable long-term pipeline of infrastructure projects. As a nation we should aim to speed-up infrastructure delivery to enable faster returns for private investment so as to foster greater certainty around successful outcomes. Currently, it takes significant time to deliver a major project even though the planning regime has moved forward. Private investment can follow growth to support infrastructure delivery as the two are interlinked. More needs to be done to address this, but infrastructure can come ahead of growth. Unfortunately the infrastructure often takes too long.

Higher business rates retention offer a crucial funding source for cities and local authorities. By the end of this parliament, the government has committed to delivering 100% business rates retention for English local authorities. Moving toward this 100%, London will be allowed a higher share of locally-raised business rates as from April 2017.

Other financing options could come from land value capture (LVC) mechanisms which recover from private landowners the value added to their land by new infrastructure e.g. transportation or sewer facilities. A new form of LVC – Development Rights Auction Model (DRAM) – involves the pooling of land interests near transport infrastructure in high-density areas. The rights to develop the lots are auctioned to competitive bidders, and the surplus achieved over the reserve price is shared by the landowner and local authority.

In a recent report, ACE proposes the establishment of an Infrastructure Investment Trust (IIT). Designed to attract investors into the UK’s infrastructure market, the IIT is a corporate vehicle that pools investor capital to acquire, manage and develop income-yielding infrastructure assets. According to ACE, it has the potential to become the new PPP of the 21st century by opening up the infrastructure market to retail investors and monetising local infrastructure assets, thus freeing-up resources for capital investment.

PUBLIC SUPPORT

A key conclusion drawn from our three industry leaders’ roundtables hosted by WSP | Parsons Brinckerhoff in London, Birmingham and Manchester (see p24) was that the industry must undertake more public advocacy. While in our poll, 80% of industry executives thought that the public does not understand the role of infrastructure in enabling growth.

Generally it is accepted that the public typically has a poor perception of infrastructure, especially where it perceives it will be adversely affected by it. Much of this may be because of the undue emphasis placed on economic infrastructure – at the expense of social infrastructure – with little narrative on how projects benefit people.

We must better communicate the economic, social and environmental benefits associated with infrastructure projects to help the public understand the priorities and why the projects are important for them. This should help generate public support for infrastructure which will provide a broader spectrum of feedback to government.
REGULATORY ENVIRONMENT

UK projects can take a long time to get completed, due largely to the challenging political, policy and regulatory environment here. We need greater flexibility and a more streamlined process that accommodates innovation and allows quicker delivery. More public engagement will go some way to balance this.

However, there is still uncertainty in the planning process regarding housing and jobs, such as through local plans where a number are still not in place. Proposals started in the housing white paper are a positive step towards addressing these challenges of speed of delivery but we must go further and be bolder. We welcome the new guidance on including housing of up to 500 homes within the geographical proximity of a DCO as it starts to strengthen the links between housing and infrastructure.

BALANCING NATIONAL AND REGIONAL DEVELOPMENT

Over the past two decades, the renaissance of UK cities has been accompanied by a concurrent debate on the powers that those cities should exercise as part of a larger nation state. In this regard, the UK has been at the forefront of the debate on how urban centres and the wider city regions should operate as economic and political units.

City regions as a concept originated in a British policy context in the Redcliffe-Maud Report in 1969. The report proposed the creation of three large ‘metropolitan areas’ based upon the conurbations surrounding Manchester, Liverpool and Birmingham that would be made up of both metropolitan councils covering the entire areas, and district councils covering parts. Working with district councils the metropolitan county councils were intended to be strategic authorities that ran regional services such as main roads, public transport, emergency services, civil protection, waste disposal, and strategic town and country planning.

Despite being abolished in 1986, the idea that underpinned the creation of larger metropolitan areas never went away and has since enjoyed a renaissance in government circles with the creation of the Greater London Authority, the Greater Manchester Combined Authority, and the Liverpool City Region Combined Authority for Merseyside. The basis for this development is the Cities and Local Government Devolution Act 2016, designed to introduce directly-elected mayors to combined local authorities in England and Wales, and to devolve housing, transport, planning and policing powers to them.

The current direction of political travel seems clearly toward consolidating local government into large conglomerations that cover city regional areas. Since 1960 we have seen the reduction of 1,400 local authorities to 400 but it is argued that we need to continue this process to consolidate the landscape to just 60.

We may facilitate infrastructure growth by aligning existing economic areas such as Liverpool, Manchester, Leeds, Sheffield and Hull into a larger economic area that becomes a connected corridor. This ‘node’ will be an agglomeration of smaller urban centres. Enabling cities in this way could obviate the need to create new large cities. For example, we have supported Sheffield City Region (SCR) in developing the Sheffield Innovation Corridor bid for Local Majors Funding (LMF). And we have worked on a number of schemes that secured funding at the Autumn Statement 2016, including the strategic study into transport links in the Oxford-Milton Keynes-Cambridge growth corridor.

These benefits will only be achievable if we can create the right institutional superstructure to support this new urban growth. Power and money need to be devolved in tandem if the new city regions are able to address the challenges they face and create the growth that the UK needs.

INAPPROPRIATE DELIVERY STRUCTURES

Smaller, short-term projects (e.g. novel fare structuring) that are attractive to the public and give immediate benefits can also be politically appealing. While there are some merits for quicker wins for delivering smaller infrastructure projects that facilitate local growth schemes we need to escape from this sort of short-termism and migrate to a more stable, long-term project delivery that is likely to give the country the infrastructure it needs. What is required are smaller local schemes that are integrated with larger scale sub-national schemes and UK projects.

UNCERTAINTY IN THE PLANNING PROCESS

While the planning regime in recent years has been rendered less onerous, it still takes a long time to deliver a major project. But if infrastructure schemes could be delivered more quickly, private investors might get faster returns making such projects more attractive. This will give greater certainty for future projects and thereby increase overall confidence in the infrastructure planning regime.
DIFFICULT SITES

Brownfield and contaminated sites are perceived as difficult and costly to develop, particularly by overseas investors. Some stay clear. We would like to see a greater focus on developing such sites to bring greater land utilisation. Compensation for development costs could be provided by subsidies and innovative tax models.

POPULATION GROWTH

Increased levels of migration and an ageing social structure are contributing to higher population growth. Much of this is expected to be housing-led and will result in new settlements. How can we accommodate this new growth and how will these settlements, suburbs and new towns be connected with affordable and accessible public transport to reduce car usage? What provision will be made to accommodate the expected rise in autonomous vehicles? And how can we make these new settlements attractive carriers for both domestic and national investment?

SKILLS SHORTAGE

Skills shortages have become apparent in areas that are critical to infrastructure. This is particularly acute across the mechanical, electrical and civil engineering sectors, especially among the ‘experienced engineer’ level (3-10 years’ experience). Shortages also exist in areas such as digitalisation, artificial intelligence and big-data, robotics, automation and STEM subjects.

The long-term provision of the UK’s infrastructure will be severely hampered if the pipeline of engineers and professionals is not maintained at full flow. But the onus to achieve this should not just rest on government. Our industry must also keep taking on more apprenticeships, paid interns, sandwich placement students and graduate trainees.

LACK OF STRONG LEADERSHIP TO INSTIGATE AND DIRECT PROJECTS

Projects need a champion to move them forward quickly. Without such leaders infrastructure projects are at best compromised and at worst a poor fit for their intended locations. That is why we applaud the government’s strategy to devolve more power to the cities and the regions. Six soon-to-be-elected mayors with sweeping powers will govern almost 10 million people. From May 2017, citizens in Greater Manchester, Liverpool city region, Tees Valley, the West Midlands, the West of England, and Cambridgeshire & Peterborough will all have their own powerful elected mayor.

Yet in a recent report, the Institute for Public Policy Research (IPPR) states that although these mayors have enough powers to transform their city regions, there has been insufficient policy development to enable it. The IPPR proposes that the new mayors should, among other things, use transport policy to prioritise poor neighbourhoods and provide quality jobs for local people; deliver infrastructure, transport and housing by integrating land-use planning and, alongside central government, establish financial innovations and housing investment. In all, the report proposes 30 policies that these new leaders might adopt to transform their city regions. Only time will tell how effective they will be.

MOVING WITH THE TIMES

The digital transformation continues apace and our infrastructure must not be left behind. We must design infrastructure to be future ready as well as being capable of picking up developments in the digital and SMART sectors.

TALKING HEADS

Detractors claim that engaging government on infrastructure is fruitless. But ACE has engaged government and contributed to the development of the National Infrastructure Plan (NIP). Out of this have come inspiring projects such as HS2, Thames Tideway, Heathrow’s third runway and Hinkley. So that at least indicates that the government listens. It is therefore important that we as an industry are able to communicate a unified story clearly and authoritatively.

At a recent industry workshop, some of the top minds in infrastructure discussed how the industry is changing and the major challenges it faces. We identified five points:

1. China is potentially a huge investor in UK infrastructure but this may be uncertain if we do not stimulate this funding stream;
2. Oil and gas prices could adversely affect the flow of funds into our large urban centres;
3. The city and the effect of big data and technology on our urban centres. The way business is conducted in the next 10-15 years will be completely different to what it is today;
4. Changes in the competitive landscape;
5. The political landscape: Brexit and other overseas political developments could have an adverse effect on inward investment.

We are living in rapidly changing times characterised chiefly by technological progress and rapid urban population growth. These two challenges alone are exerting huge stresses on our towns and cities. We can at least relieve these pressures by ensuring we have the right infrastructure in place delivered at the right time and at the right cost to society. But to achieve this will require from both industry and the government an on-going rapport that is well-informed, joined-up and all inclusive.

The outcome of our research provides a good platform for our case promoting investment in both social and economic infrastructure. Leveraging on this research’s findings should help towards improving the UK’s industrial productivity and position us as a desirable investment destination post-Brexit. ACE supports and commends the findings of this white paper to government, pension funds, project funders and investors, the supply chain and wider stakeholders across the industry.
INFRASTRUCTURE INVESTMENT PROVIDES ECONOMIC BENEFITS

WE AGREE WITH THE OVERALL THRUST OF THE RECENT DISCUSSION PAPER FROM THE NATIONAL INFRASTRUCTURE COMMISSION ENTITLED ‘ECONOMIC GROWTH AND THE DEMAND FOR INFRASTRUCTURE SERVICES’ (PUBLISHED MARCH 2017). AND ALTHOUGH WE APPRECIATE THAT THERE IS A LACK OF HIGH QUALITY EVIDENCE (PARTLY DUE TO A LACK OF HISTORICAL DATA) TO ESTABLISH A CAUSAL LINK BETWEEN INFRASTRUCTURE INVESTMENT AND LOCALISATION ECONOMIC BENEFITS, THAT DOES NOT MEAN THERE IS NO LINK. AS FAR AS THE UK IS CONCERNED, GIBBONS ET AL (2012) DEMONSTRATED, FOR EXAMPLE, THAT ROAD PROJECTS HAVE A BENEFICIAL IMPACT ON WAGES AND PRODUCTIVITY.

Even if infrastructure investment alone may not be sufficient to revive depressed localities (the Detroit People Mover is a prime example) there are numerous examples that show how economic development has followed close on the heels of infrastructure investment.

The extension of London’s Northern Line in the 1920s crossed open countryside into Edgware village. The five new stations built along the new line were rapidly followed by the northward expansion of the suburbs.

Another case is the economic benefit from the infrastructure investment made in Stratford for the 2012 London Olympics. Today Stratford is the second most connected part of London (after King’s Cross) and continues to attract substantial residential and other development.

Also recently, transport investment east of Exeter, Devon included improvements to the MS J29 (2011), a pedestrian/cycle bridge and a new station (2015), this led to significant economic growth that was not captured in the transport scheme assessment at the time and would not have happened without that investment*. Therefore we feel we are justified in stressing that critical infrastructure investment should not be delayed just because of the lack of ‘compelling evidence’ that may or may not prove causality.

We are keen to support the NIC in future research and welcome the opportunity for further discussion around potential research topics.

In Greater Manchester we are rapidly being seen as an equal to London in terms of digital. There needs to be more attention on digital from government. We hear a lot about putting resource into 5G, but if you have not even got 4G in some places then you have to bring those areas up to scratch. This is not just about the creative and digital sector: all business needs access to decent broadband. This is an area where the new mayor of Greater Manchester could look at extra revenue-raising mechanisms to raise funds for digital infrastructure.

In terms of hard infrastructure, it is not just about connecting the cities and the major urban centres. You also have to work out how people are going to move around within those regional areas. It is no use having an 80-minute train journey from Manchester to London on HS2 if it takes the same length of time to get to Piccadilly Station from Rochdale. We sometimes forget this and it is something that the new mayor will have to get to grips with.

Bus franchising has a role to play here and we should also not forget the roads. For too long they have been the poor relation when it comes to infrastructure and there are major issues around the strategic road infrastructure. Much work is going on around the M60 to convert into a smart motorway but the road structure in the towns and city centres also needs attention. At times the traffic in Manchester city centre is horrendous and that affects business.

Proper local accountability in devolution is vital. Although we are seeing moves to increase the retention of business rates we want to make the mayor aware of the need for accountability. Our members are not against paying an extra £p on their business rates as long as they are given a say or it is absolutely clear about where that money will be spent. The more we can look at better models for local taxation the greater the likelihood of achieving business acceptance.

A fundamental issue is the LEPs having a say over how that money is spent. The LEP in Manchester is not fully representative of the local business community in Greater Manchester. We are not against LEPs, but if the process for making local decisions is open and transparent and accountable it will put things on a different footing.

All LEPs across the country have different models. If they are to become what government hopes for they will require some standardisation. Some will need a massive overhaul to make them effective. We need a review of the business governance models we have in Greater Manchester which I am sure will form part of the new mayor’s role. We need more accountability because otherwise there will be decisions made about infrastructure that businesses will still feel remote and removed from and that cannot be right.

Chris Fletcher is Marketing and Policy Director at the Greater Manchester Chamber of Commerce

*TALKING HEADS

Chris Fletcher

We should consider two things when we talk about infrastructure. One is actual physical infrastructure – road, rail and moving people and goods around, the other is digital infrastructure. Increasingly, our members are saying that talking about HS2 and HS3 is fine but we must also have the same focus on digital infrastructure because otherwise a modern 21st century economy is just not going to be able to cope, especially if you look at the competition from overseas.

In Greater Manchester we are rapidly being seen as an equal to London in terms of digital. There needs to be more attention on digital from government. We hear a lot about putting resource into 5G, but if you have not even got 4G in some places then you have to bring those areas up to scratch. This is not just about the creative and digital sector: all business needs access to decent broadband. This is an area where the new mayor of Greater Manchester could look at extra revenue-raising mechanisms to raise funds for digital infrastructure.

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A WAY FORWARD – ACTIONS FOR INDUSTRY

FOR MANY PEOPLE LIVING IN THE SUBURBS, CAR OWNERSHIP IS OFTEN A RESPONSE TO A LACK OF SAFE, CONVENIENT AND AFFORDABLE TRANSPORT ALTERNATIVES. THE REALITY IS THAT OUR CARS ARE TYPICALLY PARKED AT HOME – WHETHER ON OR OFF STREET – FOR 80% OF THE TIME.

• Work with government to deliver infrastructure more quickly and so enable faster returns for private investment. This should give greater confidence around successful outcomes and attract global investment;
• Work with government to provide greater advocacy to the general public concerning the benefits of infrastructure. An informed electorate can be a valuable ally in affecting positive change;
• Connect across consultancy, contracting, industry bodies, project promoters, creative and advertising sectors to establish ‘industry best’ ways of communicating the social value of infrastructure to the public;
• Expand how we discuss mega projects (e.g. HS2 and Crossrail) in terms of how they link up with smaller projects. This will help give the public a better appreciation of the infrastructure’s benefits and its impact on them;
• Evaluate and propose new funding sources, eg pension funds, private equity companies, funds and bonds, LVC’s and levies on greenfield developments (to subsidise development in less viable areas);
• Instigate research to demonstrate the economic impact of infrastructure, both for local and national level schemes. This will provide a better understanding of the economic performance of infrastructure to support the role of private investment;
• Work with government to attract more young people into infrastructure and ensure an adequate flow of skills to facilitate the delivery of the required infrastructure schemes. As the NIC recognises, skills are critical to whether local areas succeed or struggle economically;
• Highlight to government the role played by the major consultancies which can advise on international best practice based on experience from their global project portfolios.

A WAY FORWARD – TEN OPPORTUNITIES FOR GOVERNMENT

ALTHOUGH GOVERNMENT HAS BEGUN TO RECOGNISE THE BENEFICIAL EFFECT OF INFRASTRUCTURE TO OUR NATIONAL ECONOMIC DEVELOPMENT, WE BELIEVE IT CAN BECOME MORE ATTUNED TO THE NATION’S INFRASTRUCTURE NEEDS. WSP PARSONS BRINCKERHOFF, ACE AND INFRASTRUCTURE INTELLIGENCE HAVE FORMULATED A SERIES OF MEASURES WHICH, IF EMBRACED BY GOVERNMENT, COULD GO SOME WAY TO ADDRESS THE IMMEDIATE CONCERNS OF OUR SECTOR AND PROVIDE THE UK WITH THE INFRASTRUCTURE TO RESOLVE THE ABOVEMENTIONED CHALLENGES. WE PROPOSE:

1. The establishment of a minister for infrastructure to provide a clear, strong focus in government and who could head a fully-fledged national infrastructure department. Clear leadership from government on key policy issues will reduce confusion and increase confidence;
2. The empowerment of metropolitan leaders to become local clients with powers and financial resources to produce comprehensive local development plans tailored to local needs and feeding into national plans. Greater regional integration will be vital to achieve this;
3. The devolution of fiscal power to London, Birmingham, Manchester and the other big UK cities could produce novel finance mechanisms for new urban infrastructure projects and lead to greater investment in – and management of – large projects;
4. Facilitating the connectivity within and between cities to develop connected economic corridors (nodes) that will act as growth promoters;
5. Migrating to a more stable long-term pipeline of infrastructure projects to give the private sector greater investment confidence. Five-year investment cycles have proved unable to facilitate long-term infrastructure provision;
6. The social value of infrastructure (jobs, schools, hospitals, etc.) should be clearly made to the public. This will require better public engagement overall, as well as smarter metrics and data, including clever use of infographics and plain English.
7. New structures and governance models will facilitate regional integration and strategic planning.
8. New place-based identities will promote cities and regions and help attract investors. (Cardiff Capital Region comprises three enterprise zones in which the Welsh Government is prioritising investment in business infrastructure);
9. Making adequate provision for climate change which will require more resilient infrastructure, buildings and economies;
10. A greater focus on brownfield sites to allow more efficient land utilisation. This could be facilitated by subsidies and innovative tax models.
SELECTIVE RESULTS FROM THE WSP | PARSONS BRINCKERHOFF
SURVEY OF INDUSTRY EXECUTIVES

In Autumn 2016, we conducted a survey of 152 industry executives comprising CEOs, MDs, board members, directors, owners, shareholders and senior managers. The sectors they represented included public sector (infrastructure and non-infrastructure), academia and research, contractors, manufacturers/suppliers and professional services.

On many of the points, the results were overwhelmingly conclusive:

99% thought that the Government should continue to invest in major infrastructure projects (despite the EU referendum result)

94% thought that the Government should not put off investment decisions until there was greater certainty on Britain’s relationship with the rest of Europe

72% thought that cities should have greater fiscal/revenue control and decision-taking powers on investment priorities

80% thought that the public does not understand the role of infrastructure in enabling growth

94% agreed that the industry should do more to engage key decision takers on the importance of infrastructure and development

79% said the quality of our cities and the public realm will be of increasing importance in increasing our national competitiveness should we leave the EU

When asked to select their number one investment priority that would help ensure the UK’s long-term competitiveness:

37% chose improved transport links between cities, eg HS2, HS3

25% chose improved transport links within cities and city regions e.g. Cross Rail 2

33% chose increased air capacity in the South East

23% chose increased renewable energy

19% chose improving the UK’s main trunk roads and motorways

12% chose improving local road transport

26% chose digital and IT infrastructure

12% chose social infrastructure (schools, hospitals etc)

2.5% chose flood defence/climate resilience, and nobody chose systems improvement (eg, electrification) as their number one choice.

TALKING HEADS

Brexit will affect expenditure and focus on infrastructure. This will be positive because it is throwing the UK back on itself as there has got to be extra focus on how we present ourselves as a potential investment opportunity to the world. That means pulling a finger out and making sure that our infrastructure investment is big enough and really counts. We must show that this vote does not stop the UK from being an attractive investment opportunity. So Brexit could be a positive thing.

However we have to find a way of getting that investment. Just because we are leaving the EU does not automatically throw up the spare cash. Pension funds cannot be forced to invest in infrastructure; you have to make infrastructure an attractive investment proposition which makes a return. You do that by turning it into a steady income-producing product. It is not massively easy but it can be done.

The situation varies depending on where you are. There could be huge potential for confusion with regional structures. In the West Midlands you have three different Local Enterprise Partnerships, all the local authorities, the combined authority and now the Midlands Engine. The LEPs are included in the combined authority but the mayor is elected by the voters in the local authorities in the combined authority. The whole thing needs reviewing. Somebody somewhere needs to straighten all this out because the private sector wants clarity and simplicity.

I am optimistic about infrastructure, government investment in infrastructure and local authority support for infrastructure, but I am sceptical about the structures put in place to deliver it. If we get the funding but we cannot deliver then that is a problem.

Industry must offer some pretty strong views about the structures we need. We need simplicity. Some of the devolution deals have fallen apart due to local authorities bickering amongst themselves. We need more creative thinking. Look at the West Midlands. My perception is that the relationships are quite tense. Look at housing: The only way you are going to solve the region’s housing problems is by exporting the need from Birmingham out into the surrounding areas but the leaders of the local authorities do not want development.

We are all agreed that everybody sees infrastructure as crucially important. Government will say that it is putting money in and focusing on large-scale projects. But at a municipal level we need to do more. Starting the funding is the big challenge.

It is not going to be easy. Although we are seeing local businesses moving into the Birmingham area I think it will take a long time to recover from the destruction of the regional structures we once had and which actually worked.

Some things you must plan on a bigger-than-local basis.

Liz Peace is chair of the Curzon Urban Regeneration Company which is overseeing the regeneration around Birmingham’s proposed HS2 station.
In November 2016 WSP|Parsons Brinckerhoff organised three roundtables attended by industry leaders from government and infrastructure suppliers. The main points and recommendations agreed upon are summarised below:

**OUTPUT FROM THE ROUNDTABLES**

- Infrastructure is a big agent for revitalising the economy;
- Infrastructure is an enabler for skills development and transfer between pipeline projects;
- Better and more public advocacy is critical to highlight the economic, social and environmental benefits of infrastructure, particularly around job creation, air quality and overall well-being;
- Better advocacy to the business sector to give confidence and encourage investment;
- Knowing what the future holds can inspire investors as market uncertainty and lack of confidence are impacting adversely on the speed of infrastructure delivery;
- Existing funding models need to be improved;
- Devolved fiscal powers for London, Birmingham Manchester and other big UK cities;
- Regional integration with each region spearheaded by a figurehead (metro mayor);
- Infrastructure needs to attract more young people, especially girls, across the spectrum, from schools, apprenticeships and universities;
- Insufficient R&D investment by the infrastructure industry generally. We can study other industries to emulate best-practice benchmarking;
- Discuss large projects such as HS2, Crossrail and Hinkley Point so the public understands the value and connectivity with smaller projects;
- Highlight ‘softer’ infrastructure such as digital connectivity, skills and innovation;
- New settlements, suburbs and towns created by housing growth in and around cities should be well-connected by affordable and accessible public transport to reduce car usage;
- Increasing inter-city connectivity by linking urban areas in designated corridors could obviate the need to plan new large cities;
- A pipeline of business-case-ready projects will incentivise private sector investment;
- More city and regional devolution should lead to better-tailored local infrastructure;
- Identifying and creating local/regional centres of excellence could attract investment;
- Infrastructure development should be less London-centric, and
- More focus is needed on brownfield sites for better land utilisation.

It is very important to win public support when planning infrastructure. It is absolutely critical to develop schemes by consulting and working with people rather than presenting them with a fait accompli.

Too many schemes fail because of inadequate consultation. For us consultation is crucial as it highlights people’s transport needs which in turn can inform better decision making. By getting that level of engagement you create great schemes that people want and recognise the benefit of.

The benefits of such an approach can be seen in Leeds where our major consultation exercise on the city’s transport plans saw 8,000 people respond with their ideas and hundreds more attend meetings and consultation events. Getting more than 8,000 people to respond is a major achievement. We consulted across the city and went to different interest groups, to the old and the young, to gather all the different views.

People came forward with their own ideas on what needed to happen. As a result we now have more straightforward local schemes developed with the common sense of local people, rather than more complex projects that are not always needed.

Councillor Judith Blake is Leader of Leeds City Council and chair of the Core Cities UK group.

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ACE estimates that by 2020 road inefficiencies could cause England alone to suffer a cumulative loss of £97bn.
ABOUT US

WSP | Parsons Brinckerhoff is one of the world’s leading engineering professional services consulting firms. Our 36,500 people, based in more than 500 offices, across 40 countries provide engineering and multidisciplinary services in a vast array of industry sectors, with a focus on technical excellence and client service.

In the UK and Ireland, 7,100 people (including Mouchel Consulting) provide consultancy services to all aspects of the built and natural environment working across both the public and private sectors, with local and national governments, local authorities, developers, contractors and co-professionals. The combined business has been involved in many high profile UK projects including the Shard, Crossrail, Queen Elizabeth University Hospital, the Bullring shopping centre in Birmingham, the re-development of London Bridge Station, Manchester Metrolink and the London Olympic & Paralympic Route Network.

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