

A new initiative, based on industry research and opinion, will help raise the profile and importance of economic and social infrastructure to the future of the UK, writes *Andy Walker*.

Making infrastructure make a difference

Infrastucture Intelligence is collaborating with WSP | Parsons Brinckerhoff on a new initiative aimed at identifying infrastructure priorities to allow cities to be competitive in the new global landscape, following the EU referendum.

Towards the end of 2016, a series of three industry roundtable events, bringing together more than 30 key figures from the industry, were held in London, Manchester and Birmingham to discuss the key issues. The events also dissected the results of an industry leaders' survey held in the autumn of last year and this will all feed into the publication of a white paper in the spring to be launched at a high-profile event at parliament.

The Cities and Infrastructure initiative, which focuses on raising the profile and importance of economic and social infrastructure to the future of the UK, particularly to its cities, has already raised some very interesting talking points. Industry and local leaders at the roundtable events were keen to express an opinion on what the construction and infrastructure sector's priorities should be in making a better contribution to sustained growth and competitiveness. A number of emerging issues were raised by those taking part in the events.

Given the new approach being adopted by Theresa May's government, questions were raised about the trajectory for devolution and the government's commitment to it. Is momentum slowing and what should city regions' focus and priorities be? There was a clear desire expressed amongst industry leaders in favour of more devolved powers, a view reflected in the survey results which showed that 73% of respondents thought that cities should have greater fiscal/revenue control and decision taking powers on investment priorities.

A renewed focus on the regions,

especially outside of London, was welcomed by those taking part in the roundtables and participants were keen that the government should develop priorities for rebalancing growth across the UK and reconcile short term improvements with the costly longer term critical national infrastructure projects. The importance of developing regional 'identities' to focus collaboration and competition for investment was discussed at all the roundtable events, with participants clear that any such 'branding' needed to be city based rather than regionally focussed.

There were no easy solutions to rebalancing growth, but it was clear that the industry needed to engage better with politicians at local, regional and national level to ensure the right decisions were made. It was thought that construction and infrastructure companies have been 'backward in coming forward' for too long and it was time to proactively engage those who make decisions to influence them. It was also seen as important to put forward solutions that "benefitted people tomorrow rather than in 30 years' time". These would be seen as particularly attractive to politicians seeking short-term gains.

While, unsurprisingly, 99% of respondents in the leaders' survey thought that government should continue to invest in major infrastructure projects, 94% believed that the industry should do more to engage political and business leadership on the importance of infrastructure and connected development. The industry has a crucial role to play in engaging business and political leadership and this recurring theme in the discussions is something that the Cities and Infrastructure white paper will cover in greater detail.

In addition to influencing the politicians, the public was also identified as a key audience that needed to be convinced about the value of infrastructure development. A significant 80% of survey respondents thought that the public didn't understand the benefits of infrastructure – a key issue that needed to be tackled. How to best engage public support for critical national infrastructure projects will be a crucial task if cities are to truly reach their potential and be able to undertake the development that they need to prosper and it is not a task that the industry can ignore.

Many organisations working in

construction are already involved in public consultation on specific projects and bringing that expertise and skill set to bear in discussions with local and national political stakeholders was also thought to be absolutely key in raising the profile of the role of the industry with influential decision makers.

Widening the focus of regional development to include social and economic infrastructure was highlighted as an important factor in winning public support. The transformative effect of local developments like hospitals, schools, housing, sports facilities and the associated transport infrastructure to make them work was nearly always welcomed by the communities that use them and it was important to highlight this too. "There's not enough emphasis on social infrastructure and too much focus on economic development," said one Birmingham roundtable participant. Communicating the value of infrastructure to the public effectively was seen as critical.

Looking at solutions for the next 20 years, many thought that growth will be housing-led. Traditional places where people want to live will be places with open spaces and clean air, so there would be a need for affordable public transport and less commuting into cities. Affordable housing in the cities was still seen as important though, as younger people especially want to live in the city with all that they have to offer.

No discussion on infrastructure at the present time could ignore the effects of the Brexit vote and this was certainly discussed by the industry leaders that took part in the roundtable discussions. However, in the main they were upbeat about the future, preferring to look at the opportunities to be gained rather than

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the problems. This was reflected in the results of the survey which revealed that UK infrastructure businesses are not big exporters to the EU, with 41% saying that less than 10% of their income and investment comes from EU sources.

That's not to say, however, that there are not concerns about the UK's decision to leave the EU. The leaders survey showed that the industry is somewhat split on the issue, with 38% saying that the vote has had a negative impact, 30% saying it is neutral and 32% saying it is too early to tell. A note of caution was raised that Brexit might lead to a weakening on the UK's environmental commitments, something most felt would be a retrograde step. In terms of confidence, the picture is a little clearer, with 40% saying that the vote has had a negative impact on orders and 36% saying Brexit has had a negative impact on investment decisions.

Overall, it was important to have a self-confident approach, with the tone and approach of local leaders being seen as an important factor in attracting investment.

In a post-Brexit landscape, the quality of Britain's cities and the public realm will be of increasing importance in increasing national competitiveness once the UK leaves the EU. Central government and city regions will need to provide the funding to develop that public realm and also resource the skills needed to enable the necessary development to take place. How can investors be brought together to fund local schemes? Can pension funds in local authorities be used for local development to aid the creation of international centres of excellence in key business areas in specific regions? Alternative funding mechanisms will



need to be found and creative thinking employed in freeing up resources to aid development. This was clearly felt to be a urgent discussion to be held with government and the treasury as a priority.

Constraints on growth and development, like the perceived gap in regional strategic planning capability and slow decision making, will also need to be overcome if growth is to be truly and fairly rebalanced. Redesigning the interfaces between organisations so that they work better for better outcomes was also necessary to be able to think and do differently.



“The social, economic and environmental benefits of good infrastructure need to be articulated more widely.”

Peter Sharratt, WSP | Parsons Brinckerhoff

Infrastructure organisations will have a crucial role in reshaping the UK's regions and rebalancing economic growth. That growth cannot happen effectively without the active involvement of construction professionals and the support of the public. As Peter Sharratt, head of strategic consulting at WSP | Parsons Brinckerhoff, says: “The social, economic and environmental benefits of good infrastructure need to be articulated more widely, alongside more decisions being taken locally to facilitate the ‘whole place’ solution that can make a difference to economic prosperity and to people's quality of life.”

The next steps for the Cities and Infrastructure initiative will be the publication of the white paper in the spring and its launch at an event in parliament with key industry, business and political figures. But that's not all. “We want to keep the debate and dialogue going,” said Peter Sharratt. “We see the white paper and the discussions we are having are the start of an ongoing process of engagement with politicians, funders and the key decision makers who make things happen. That way, we can all gain a better understanding of the importance of economic and social infrastructure to the UK and how best to deliver it,” he said.

Mass transit

Dealing with the challenge of disruption



Consultancy and engineering firms operating in the mass transit sector will face a number of key challenges over the coming years to meet the demand for better public transport, says *Pierre Verzat*.



Our world is facing major challenges, from growing population, rapid urbanisation to increasing concern for the environment, including climate change issues that are starting to be taken seriously. In this context, the demand for mobility has never been higher.

These megatrends are driving the demand for public transport, especially mass transit and rail, across the globe in emerging markets as well as in more mature ones.

As one of the world's only engineering and consulting companies focusing on mass transit and rail, SYSTRA specialises in a market worth approximately f8bn, depending on hypothesis on market openness and accessibility ratios in different countries. We forecast average growth of two to 3% annually during the next 20 years.

Throughout 2016, the global engineering market has had to face some major challenges – faltering oil prices, diminishing investment caused by the tumbling demand for raw materials, economic slowdown, and political shifts like Brexit, that affect local markets while sometimes benefitting others. This could be the first lesson we have learnt during 2016. As a global player present in all regions of the world, we need to constantly adapt and develop our capacity to reallocate our resources from one region to another, as changes can happen very quickly. We have to develop a more cross-functional and agile organisation.

The second lesson is certainly the growing trend for consolidation, with a large number of acquisitions still taking place in North America and Europe. We have been busy making five acquisitions in the last 12 months in Northern Europe, Asia and Latin America. We expect this trend to continue and spread to all regions of the world.

The third is more of a continuation of previous trends. There is a growing

awareness that private investment in infrastructure is more vital than ever, to bridge the funding gap between huge needs, and projects that cannot be entirely financed from public funds.

That is why, in addition to traditional public delivery schemes, the engineering community will certainly have to change the way we work with private contractors and manufacturers, using new delivery schemes, such as design and build, public private partnerships and alliances. We will have to brush up our contract skills and continuously refine our engineering processes.

Finally, it is increasingly obvious that our industry and our markets will have to deal with some disruptive changes in the middle and long term. Indeed, this has already started.

The engineering industry has a huge potential for improving productivity and efficiency, through digital transformation and the use of smart design, including building information modelling and other innovative solutions that are rapidly reaching maturity. Our markets and our clients' expectations will undoubtedly evolve too, with escalating demands for digital solutions, data management and a total cost of ownership approach. As asset management becomes more widespread, operation and maintenance will become strategic skills for engineering firms. These

skills are already part of SYSTRA's DNA, and we are eager to offer new comprehensive solutions to meet our clients' challenging new expectations.

We also feel that there is growing awareness of corporate social responsibility and compliance issues among our clients. We are convinced that this is a good thing for our global engineering industry. We cannot grow sustainably without being accountable for our impact on society and the planet, and without placing ethics and respect for others at the heart of our business.

And last but not least, let us not forget that our market may at any time be partly or totally disrupted by new technologies or solutions. In the transport sector, the automated vehicle, hyperloop or urban air mobility dreams could one day come true. SYSTRA welcomes these potential changes, and that's why we are at the forefront of pioneering new solutions for mobility.

We have great challenges ahead of us. As a leader in innovative and complex transport infrastructure and systems, SYSTRA is very excited to be part of the engineering and consulting community that will have the chance to address these complex challenges, in order to bring the best transport solutions to our direct clients and, ultimately, to passengers.

Pierre Verzat is the chief executive officer of French consultancy and engineering group SYSTRA



Dubai's Light Rail Transit system, a SYSTRA project.