

Transforming Infrastructure Delivery


PRIORITIES FOR UK GOVERNMENT

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matters

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Major infrastructure projects are deeply interwoven into the identity of modern Britain. From the Industrial Revolution, through the white heat of technology, to the present day; infrastructure has marked not only our landscapes but has shaped our society. It has guaranteed that, in an ever-changing world, Britain continues its role as an economic powerhouse.

Major projects were once truly a keystone in unlocking a world-leading Britain. However, major infrastructure projects now suffer from a public reputation, and too often a reality, of being beset by delays and over-spending, resulting in wavering commitments, and a lack of public or political support.

This report, which brings together views from industry insiders, aims to be the starting gun for Government and industry to come together. A partnership that could ensure major projects once again become the keystone of a Modern Britain, re-imagining their reputation, levels of support, and ability to deliver.

Moreover, this report begins to explore what must be done by both industry and Government to dramatically improve the pace of delivery, productivity, and sustainability of megaprojects. As the case studies in this report show, there are green shoots of world leading projects in the UK today. A gear shift in the key areas above would develop these green shoots and make British engineering once again the envy of the world.

From carving out canal systems, to creating the first Victorian railways, to re-building post war Britain, we have often led the world in the delivery of transformative infrastructure. These projects were not just feats of staggering imagination and world leading engineering, but foundations of the British economy, driving investment and productivity while unlocking economic growth and creating new ways of living and working.

Whatever the slogan, be it levelling up, a growth agenda, or building back better, infrastructure can be the keystone of any government's delivery. Particularly in today's economic climate, stimulating growth is mission critical to Government agendas. Infrastructure has a globally proven record of driving growth and should be a principal section of the UK's plan to achieve a high growth economy.

From the completion of the Olympic games to the recently opened Elizabeth Line, the UK continues a lineage of megaproject delivery. If projects with spades in the ground, such as HS2, are delivered alongside projects with Government backing but awaiting final approval, such as Lower Thames Crossing and Small Modular Reactors, then this lineage will continue.

We are at a key moment for Britain and British infrastructure. If industry and Government act now, the sector can regenerate its image and be the key to unlocking a high growth, world leading, net zero Britain via truly world class delivery.



Jonathan Roe

Senior Managing Director, Ankura

“The UK has a rich heritage of delivering truly world-leading infrastructure. From the Victorian icons of London’s underground network and Brunel’s bridges, to 21st century marvels of the Elizabeth Line and Thames Tideway Tunnel, the UK has demonstrated time and again that it can deliver game changing infrastructure.

New infrastructure brings considerable economic and societal benefits, yet its delivery can be divisive, with a reputation for being beset by waste and overruns. In the current fiscal environment, the pressure on projects to deliver value for money and do more with less has never been greater. But these challenges also present an enormous opportunity. Approached in the right way, they could provide the catalyst that seeds a new era of innovation in the delivery of our most ambitious infrastructure: improving productivity and delivering faster, cleaner and cheaper.

Driving this change will need altogether different thinking. It will require collaboration between industry and government unlike anything the sector has seen before. It will need bold decisions taken in the long-term. And the prize will be worth it: a sector that not only delivers world-class infrastructure, but delivers it in a world-class way.”





Dom O'Donnell

Managing Director, Infrastructure Matters

"Infrastructure affects nearly every aspect of our day-to-day lives. UK major infrastructure has not only transformed our transport, energy and now digital systems but truly changed the way people move around and connect with one another. Whether it be the industrialisation of the UK or our move to net zero, UK infrastructure shapes the future of our nation.

As a sector, it is easy to forget the impacts of our projects. Often for others when they see delays, road works, cost increases, or a road being built next to their house, they think of infrastructure as a byword for disruption. However, the truth is the major projects industry delivers jobs, growth, and increased productivity. We drive innovation and net zero products, and we deliver major and complex projects that positively impact millions of people.

At Infrastructure Matters, we work in the industry day in and day out to secure support and unlock the delivery of major and complex projects. Therefore, we have seen the massive value of projects and the painful roadblocks they often hit. Alongside our expert partner Ankura, we have aimed to bring the sector together in this report in its widest possible form. We have done this so the industry can advocate that together, we can deliver the new Government's infrastructure, growth, and innovation agendas.

This report should be a starting gun that brings together our industry to work with each other and Government to deliver world leading projects that shape the future of the UK."



Effecting a gear shift in the pace, productivity, and sustainability of megaproject delivery will require government and industry to work together differently. Our report identifies five challenges – and the associated asks of both government and industry – to make meaningful progress towards their solutions.



APPROVALS

The current approvals process is one of the largest blockers to the UK's ability to deliver major infrastructure at pace. Granting approvals for major projects is a serious responsibility; decisions allocate significant sums of taxpayer money, impact thousands of lives and permanently change landscapes. Whilst approvals and the business cases needed to gain them should be robust and take in views of an all-inclusive spectrum of stakeholders, the process is slow, costly, and frequently disrupted by challenge, blocking both innovation and programmes that could level up the UK. In addition, the process gives specific groups unrepresentative power over a project's approval. **If the UK is to deliver infrastructure at pace, it must be able to accelerate the approval process while still building robust business cases with strong community engagement.**



PROCUREMENT

Current procurement processes focus on legal compliance rather than the central project objectives. Whilst it is essential that procurement is fair, rigorous, and legally compliant, processes are often too rigid and lack the flexibility to encourage highly innovative and different approaches by the supply chain. Too often the focus is on driving submissions that are similar – and therefore straightforward to evaluate in a structured and formulaic manner – rather than promoting creativity. The “alternative bid” is rarely welcome and presents a headache to the evaluation process, yet it is in the alternatives that the bolder innovation and ingenuity can often be found. **Procurement approaches need to retain checks and balances to ensure best value for public money, but need to be less mechanistic in their application and allow for far greater creativity.**



SKILLS

Infrastructure and major projects need greater diversity of thought and a new set of skills to enable the sector's transformation. The sector faces challenges in attracting the breadth and depth of talent necessary to innovate at scale and pace. Routes into the sector are limited and narrow, and it does not enjoy the profile and standing of other sectors competing for talent. Digital skills, in particular, are under-represented; however, with many of the global technology giants facing considerable pressure and downsizing their workforces, there is an opportunity for the infrastructure sector to capitalise and bolster its technological capabilities. Major projects and the surrounding industry must change their offer. They must ensure the recruitment of future skills is achieved from post-16 to graduate as well as re-skilling to bring in new skills from adjacent sectors.

ASK TO GOVERNMENT

Work together with industry in the UK to review the process of acceptance for major projects with a view to implementing the recommendations of the review.

ASK TO INDUSTRY

Drive forward an independent review that explores major project development in the UK and abroad to understand global best practice.

ASK TO GOVERNMENT

Commit to exploring several procurement pathfinder projects across the sector with an assessment of the ability of these pathfinder projects to drive outcomes while being legally compliant.

ASK TO INDUSTRY

Explore where in other sectors procurement is outcome focused and what system changes are needed to create this in the major projects sector.

ASK TO GOVERNMENT

Work with industry to design a programme of skills training that will serve the Government's major projects pipeline and that can be rolled out at post-16 and to those who wish to retrain. Moreover, devolve powers to shape and deploy this training to regions.

ASK TO INDUSTRY

Work collectively to identify entry barriers for underrepresented groups in the industry, particularly those who are currently economically inactive, and drive forward solutions to these barriers, setting the solutions as the industry standard.



INNOVATION

Public sector risk tolerance is a barrier to driving meaningful innovation. Innovation is central to unlocking the future of UK infrastructure. Whilst there has been some progress, with the introduction of modern methods of construction, low carbon materials and digitalisation, improvement in outcomes – in terms of productivity, sustainability, and pace – remain relatively modest. Fundamentally, 21st century construction sites look very similar to their predecessors at the turn of the century. Other industrial sectors, by comparison, have changed beyond all recognition. Part of this is because the deployment of innovation funding within the UK's infrastructure sector is fragmented, with individual projects largely reliant on driving their own innovation. Tolerance for failure is also low, and yet failure is an essential part of the innovation process. **This must change, and Government and the industry must drive a more centralised and joined up approach to research, development, and deployment of innovation onto projects. A different attitude to risk will be necessary, creating the incentive to break away from tried and tested methods.**



NET ZERO

Sustainability is largely approached by the sector at programme level and the collective power of government spending is not being put to full effect. The sector must achieve net zero construction or legitimate offsetting if the UK is to build power, transport and utility systems needed for a carbon neutral UK. This requires the development of new approaches, products and technology; but doing so will require investment by the supply chain, which can only be achieved with sufficient certainty and stability of demand. Whilst some development can be encouraged at project level, the uncertainty surrounding individual schemes – particularly during their development stages when the opportunity to innovate is greatest – limits the ability of the supply chain to invest. **Industry must work collectively with Government more centrally and forge long term supply agreements for critical elements required to decarbonise infrastructure.**



ASK TO GOVERNMENT

Work with industry to build innovation into the supply chain and support SMEs' innovation via Government accelerator and catapult projects.

ASK TO INDUSTRY

As an industry, create and fund an incubator prize that will drive innovation on one key issue that the sector must unlock, every year for the next ten years.

ASK TO GOVERNMENT

Make a hard, long-term commitment to key decarbonisation materials, equipment and technologies at a central government level to provide the certainty necessary for industry to respond and innovate.

ASK TO INDUSTRY

Work with Government to identify the top 10 transformations needed to roll out net zero projects. Also, identify where in procurement net zero could feature more to push the supply chain towards net zero.



PROJECT OVERVIEW

Liberty Charge

Neil Isaacson, Chief Executive Officer, Liberty Charge

At Liberty Charge, we are on a mission to create the UK's most reliable electric vehicle charging network, which anyone can use safely and easily. Because we believe everyone should be able to charge their car close to home.

We believe that charging your car shouldn't cost the earth. Our charge points are fairly priced and offer users great value. Our charge points deliver 100% renewable energy because we believe in a sustainable future.

To create our charge point networks, we develop long term partnerships with local authorities using an innovative zero cost model, facilitated by the backing of Liberty Global and Zouk Capital, to establish reliable, high quality charging networks.

PROJECT FACT FILE

- Project cost:** Fully funded solution with no cost to Government or Local Authorities
- Geography:** UK wide, focused on 11 million households with no driveway, as well as businesses with publicly accessible parking
- Current scale:** 700 individual charging points
- Scale needed:** Government target of 300,000 charge points needed by 2030
- Project status:** Currently rolled out in Hammersmith and Fulham, Croydon, Wandsworth, Waltham Forest, and North Northamptonshire, West Northamptonshire, roll out aimed across the UK in 2023

PROJECT BENEFITS: LIBERTY CHARGE WILL:

- Provide the right charging speeds to the current 90% of households who live more than 5 minutes' walk from a charging point
- Enable to switch to zero emission vehicles across the UK
- Massively improve air quality across the UK
- Help hit the government target of 300,000 charging points by 2030



KEY CHALLENGE: PROCUREMENT

Liberty Charge has the capability and capacity to design, roll out, run, and optimise a publicly accessible charge point network covering all charging speeds. Liberty Charge can also fully fund this roll out across the UK. In short, if Liberty Charge were given the green light, the UK would have the world's most accessible and technologically advanced charge point network. The one key blocker to this is procurement. In the current system, each council has its own procurement, wish-list, and ideas. At Liberty Charge, we support local vision; however, councils are so underfunded the procurement becomes the blocker to their vision as well as our roll out.

SOLUTION: PROCUREMENT

Government must support local authorities to have a system change with regard to the roll out of EV charge points procurement. This must include national – legally binding – codes for which charge points are allowed where and the requirements for them. Government must also support councils by providing funding for dedicated officers to lead the local authority through the roll out. This can be funded by cutting the LEVI fund, which currently gives Government funding to private companies who would, in fact, often spend their own money to achieve the same result.

THREE ASKS FOR THE PRIME MINISTER

- Save public money by allowing the private sector to invest in charge point infrastructure
- Explore system change to local authorities' procurement guidelines
- Invest Government money in rural or more deprived areas where CPOs cannot create a business case.



PROJECT OVERVIEW

Lower Thames Crossing

Matt Palmer, Executive Director, Lower Thames Crossing

The Lower Thames Crossing is the most ambitious UK road project since the M25 was completed more than 35 years ago. When built, this new crossing of the Thames estuary will almost double road capacity east of London, linking Kent and Essex through the longest road tunnels in the UK.

The Dartford Crossing is one of the UK's most vital roads, linking people and businesses, and moving essential goods and products to every corner of the country. But it cannot keep up with demand, and congestion causes misery to tens of thousands of people every day. The proposed Lower Thames Crossing will ease that congestion by taking millions of vehicles off the Dartford Crossing every year.

The Lower Thames Crossing will also drive growth by creating a reliable new connection between people and jobs, and business, customers, and suppliers. It is also key to unlocking the potential of the Thames Estuary, the UK's biggest Government backed growth opportunity, that is predicted to create 1.3 million new jobs, generate £190 billion additional GVA, and at least 1 million new homes by 2050.

A project the size of the Lower Thames Crossing needs a diverse range of people to build it. This creates a huge opportunity to make a real difference within our local communities through new work, jobs, skills and education. These opportunities include creating work for more than 22,000 people with 45% of these people to be recruited from the local area.

The project comes at a pivotal time for the UK and the region. It's a critical time to reduce carbon and do things differently and we're in a prime position to drive change across the region and in the construction sector. This is a chance to create a workforce that can help the UK make its way to net zero by 2050.

PROJECT FACT FILE

Project cost: £6.4bn - £8.2 billion

Geography: Nationally Significant Infrastructure Project based in Kent and Essex

Scale: Approximately 14.5 miles of new road with two 2.6-mile tunnels

Project status: Development Consent Order submitted

Opening date: Predicted 2030 – 2031

PROJECT BENEFITS

THE LOWER THAMES CROSSING WILL:

- Nearly double the road capacity between Kent and Essex
- Relieve congestion at Dartford by reducing the number of vehicles using the crossing by 13 million a year
- Creating work for more than 22,000 people
- Boost growth by opening a faster, reliable and resilient reight connection between the South East, Midlands, and the North
- Be the greenest road ever built in the UK
- Plant over one million trees, and create bigger, more connected habitats
- Create a new economy between Kent and Essex



KEY CHALLENGE: NET ZERO

The UK Government has committed to ambitious net zero targets, and thanks to its plans to end the sale of new petrol and diesel cars by 2030 the operational carbon footprint of road transport will fall dramatically. Vital new infrastructure like the Lower Thames Crossing is needed more urgently than ever to drive growth, innovation, and productivity; **the challenge is to build this infrastructure with as low a carbon footprint as possible.**

National Highways has a plan to be net zero in construction by 2030. The Lower Thames Crossing is being delivered at a crucial time along this journey, and has been designated as a pathfinder project that will explore carbon neutral construction and help the UK develop the skills, technology, and experience to deliver net zero infrastructure projects in the future.

KEY SOLUTION: NET ZERO

The Lower Thames Crossing is maximising carbon reduction at every possible opportunity. It has done this via a number of strategies all working to ensure the project can catalyse change, new thinking and innovation to drive this project and other to net zero.

The first step in achieving net zero was the setting of the ambition. National Highways is designing the Lower Thames Crossing to be the greenest road ever built, and has designated the project a pathfinder to explore carbon neutral construction.

National Highways recognised this scale of ambition can only be delivered in partnership with the broader construction industry and its supply chain. The Lower Thames Crossing became the first major infrastructure scheme to use its procurement process to target carbon reduction, by setting an ambitious base line and incentivising its delivery partners to innovate and drive carbon out of construction. The project is also using its buying power to create demand for net zero technology and materials; an example of this is objective of removing diesel from the site by only using hydrogen and electric plant.

The project is also championing the local supply chain and created a Supply Chain Directory to offer them free training and introductions to the main delivery partners, to give them the best opportunity to win work on the project.

To date, due to the efforts of National Highways, the Lower Thames Crossing has reduced predicted emissions during construction significantly. The project aims for this to be just the starting point.



PROJECT OVERVIEW

Future Port Talbot

Graeme Power-Hosking, Head of Programme, Future Port Talbot

Securing a clean, affordable and reliable supply of energy is a global challenge but one that presents enormous opportunities. The deployment of 24GW of floating offshore wind (FLOW) in the Celtic Sea will deliver a clean and reliable energy supply. It's also a once-in-a-generation opportunity to establish a major manufacturing and logistics support hub, enabling a new low carbon reindustrialisation and regeneration in South Wales.

Port Talbot is the ideal location for this activity and ABP is planning significant investment to ensure the site is a success and that it attracts further inward investment. Port Talbot is the natural epicenter for FLOW and already hosts some of the largest industrial players in the UK. First mover advantage is key to grasping this opportunity and capturing the full benefits of FLOW deployment and growth, giving Wales a competitive edge over potential rivals in Europe. With the right policies and investment in port infrastructure, the UK can grow a FLOW centric manufacturing, secure clean energy provision, and spark a process of wider regeneration in South Wales.

PROJECT FACT FILE

Project: Large scale redevelopment of Port Talbot focused on decarbonisation and renewable energy technologies, including the large-scale production of FLOW turbines and supporting supply chain

Project cost: AB Ports is ready to invest over £500 million in infrastructure

Geography: Port Talbot, South Wales. UK wide benefits

Scale: Deployment of 24GW of FLOW and 68ha of development land

Project Status: Project plan includes consents in 2025 and an estimated 3–5-year construction period

Deployment date: Phase 1 operational in 2028, Phase 2 operational in 2030

PROJECT BENEFITS

FUTURE PORT TALBOT WILL:

- Make a major contribution to Wales' net zero targets enabling the UK to become energy secure
- Enable the manufacturing, assembly and launch of floating foundations and related supply chain activity that will spark wider investment and growth in the local skill base
- Create 1000's of long-term, high-quality jobs in high skilled areas
- Support the decarbonisation of existing industries – including steel production at Tata Steel
- Create space for the co-location of low carbon industries, aiding the development of hydrogen production and export, and the long-term distribution and shipment of CO2
- Benefit the wider UK and provide export opportunities into emerging markets in Europe



KEY CHALLENGE

The UK is a global leader in the deployment of offshore wind. ABP has been at the forefront of this growth. However, the UK has often failed to capture the full extent of the economic benefits, with only a handful of examples of establishing manufacturing and supply chain activity in the UK.

Prospective manufacturers and supply chain providers require suitable locations in which to locate that provide direct access to both their local market as well as potential export markets. The main barrier to establishing a domestic supply chain for FLOW, however, is the same as with fixed-bottom structures. Primarily the issue of port capacity and availability of port development land areas where the supply chain can co-locate. Overcoming this requires major investment in port infrastructure over long periods without guarantees of a return on investment. The risk for investors is significant.

KEY SOLUTION

Delivering the full benefits of FLOW requires decisive action to develop the policy and investment framework before first-mover advantage is lost. Critically, the local content provisions for prospective developers need to be meaningful and enforceable in order to ensure that these requirements are met. The Government's Floating Offshore Wind Manufacturing Investment Scheme (FLOWMIS) also needs to be delivered in full and on schedule to support the delivery of critical port infrastructure.

Wherever possible and appropriate, the planning process should be streamlined and prioritised to expedite the delivery of projects in the national interest. It is also essential that agencies and departments involved with planning and consenting are appropriately resourced to enable this ambition to be realised at pace. Finally, Freeport status for Port Talbot would help to create an environment to attract inward investment for the manufacturing of components for FLOW and the development of wider industrial manufacturing.

KEY ASKS OF GOVERNMENT

- Ensure that local content provisions within the leasing rounds are sufficiently robust to secure FLOW manufacturing and supply chain activity in the UK
- Deliver the FLOW Manufacturing Investment Scheme in full and use this as the basis for future rounds of support to accelerate the delivery of critical infrastructure
- Prioritise the resourcing of consenting and licensing bodies, so they are prepared to meet the scale of the challenge and deliver at pace
- Deliver a comprehensive strategy for improving grid connections required to ensure the scale of development (24GW) can be fully realised

Why Have We Written This Report?

Ankura and Infrastructure Matters unlock the complex issues that surround major projects, from origination and through execution. Both organisations have a passion for UK infrastructure and megaprojects, and believe that the UK can deliver world leading infrastructure in a world leading way.

This vision of UK infrastructure and megaproject delivery defies the current conventional wisdom that UK infrastructure projects will be beset by delays, over-spending, and inefficiency. It instead looks to the art of the possible, drawing on some green shoots of inspiration from projects already in motion.

Ultimately, this report aims to be the starting gun for even greater levels of industry and government collaboration to understand, identify and jointly resolve the barriers to cleaner, faster and more cost-effective infrastructure delivery. As the Covid-19 pandemic demonstrated, brilliant things can happen at a time of crisis. What was considered impossible can become possible. Now, more than ever, that crisis mindset is needed to fully unlock the potential of one of the UK's most important sectors.



Acknowledgements

We believe that this report can be the start of a wider collaboration across the sector to improve infrastructure in the UK.

We would like to thank all those who have assisted in the creation of this report, be that by giving written, oral, or case study evidence, or through participation in roundtable discussions. On a small scale, this replicates what the wider industry must do in coming together to discuss, debate and find solutions to the key challenges of the day.





About Ankura

Ankura Consulting Group, LLC is an independent global expert services and advisory firm that delivers services and end-to-end solutions to help clients at critical inflection points related to conflict, crisis, performance, risk, strategy, and transformation. The Ankura team consists of more than 1,800 professionals serving 3,000+ clients across 55 countries who are leaders in their respective fields and areas of expertise. Collaborative Lateral Thinking That Delivers™, hard-earned experience, expertise, and multidisciplinary capabilities drive results and Ankura is unrivalled in its ability to assist clients to Protect, Create, and Recover Value™.

For more information, please visit [ankura.com](https://www.ankura.com).

About Infrastructure Matters

Infrastructure Matters is a bespoke consultancy that focuses on unlocking approvals and delivery of the next generation of major and complex projects across the public and private sector. The Infrastructure Matters team consists of advisors who work with project leaders to tackle the critical issues at the heart of major projects. Building advocacy, creating networks of support, and managing the political and stakeholder risks surrounding major projects are some of the key services that the team delivers. Helping to deliver projects that will shape the future is the core purpose of Infrastructure Matters, and relationships are at the heart of everything they do.

For more information, please visit [infrastructure-matters.co.uk](https://www.infrastructure-matters.co.uk).



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Jon leads the Ankura Infrastructure practice. He works with infrastructure developers, operators and their stakeholders to understand, navigate and resolve high-stakes issues, transform performance and secure outcomes.

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Dom O'Donnell

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Dom founded Infrastructure Matters with a specific purpose in mind: to help public and private sector organisations manage political and stakeholder risks during the early stages of major infrastructure schemes. He works across a number of major projects helping clients navigate complexity and deliver project critical outcomes.

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