

Industrial strategy: government and industry in partnership



Strengthening UK Based Supply Chains: Construction and Infrastructure

Introduction

Setting the scene

We have set out our vision for an Industrial strategy – a long-term, whole of Government approach to support business and align activity to build confidence to drive investment and growth. This is key to developing and sustaining a competitive, efficient and innovative UK supply base.

ACTION: WE ARE WORKING WITH INDUSTRY TO PUBLISH A CONSTRUCTION SECTOR STRATEGY IN JULY 2013

Construction is a key sector under Industrial Strategy. The sector is highly diverse with a range of discrete sub-sectors. It delivered around £69 billion GVA to the UK economy in 2010 employing around 2.5 million workers, acting as a key contributor to UK economic activity¹.

This document sets out the links between the Industrial Strategy and a number of ongoing initiatives with the construction sector, including infrastructure construction. It focuses in particular on how the publication of pipelines of future opportunities can help build supply chain capability. The approach set out in this document will therefore also be relevant to other industry sectors.

Vision

Working in partnership with industry, we will grow and improve UK capabilities in key sectors, to increase the opportunity for UK based firms to respond innovatively and efficiently to demand from both public and private sectors.

Industry-Government Partnership on Construction and infrastructure

The aim is to deliver a construction focused industrial strategy in partnership with industry by Summer 2013. This strategy will set out our ambition and articulate a clear, coherent and Government wide vision for construction and its contribution as an engine for growth. In doing so, it will draw together a number of important current initiatives. These include:-

¹ <http://www.bis.gov.uk/assets/BISCore/economics-and-statistics/docs/l/12-1140-industrial-strategy-uk-sector-analysis.pdf>

- The Government Construction Strategy for publicly procured projects (which looks at the role the public sector might play in driving efficiency and reform).²
- The Green Construction Board (which looks at the potential for the industry, and its ability to respond, in important new national and global markets)³
- The Infrastructure Cost Review (which is looking to improve the effectiveness of infrastructure delivery in the UK and ensure that barriers to investment are removed)⁴

The strategy will take into account a number of specific work streams from government and industry, including:

- Ongoing work on Growth Review commitments on procurement
- Work to strengthen and build a UK based nuclear supply chain
- Work to strengthen and build a UK based offshore wind supply chain
- Work to strengthen and develop a UK based transport infrastructure supply chain
- Work to develop a housing strategy

Pipelines of Future Opportunities

In most sectors of the economy, effective procurement will support improved delivery and will be a key input to an emerging sector based industrial strategy, including construction where public procurement accounts for about 30% of the industry's total output.⁵

Construction was the first sector to publish a rolling pipeline of future opportunities, recognising the key role that visibility and certainty of forward workload plays in creating a market where industry can invest in developing capability to respond to procurement needs. Moreover, in addition to publicly funded construction projects, the pipeline provides visibility of future

² http://www.cabinetoffice.gov.uk/sites/default/files/resources/Government-Construction-Strategy_0.pdf

³ <http://www.bis.gov.uk/policies/business-sectors/construction/green-construction-board>

⁴ http://www.hm-treasury.gov.uk/d/iuk_cost_review_report2012_230412.pdf

⁵ <http://www.ons.gov.uk/ons/rel/construction/output-in-the-construction-industry/september-and-q3-2012/stb-construction-output-2012-q3.html>

opportunities of large infrastructure projects which are delivered through private and regulated sector organisations such as Network Rail.

Future Opportunities and Building Capabilities for UK based Companies

Progress We are Making

Central to the delivery of this vision is the publication of forward pipelines to provide greater visibility of future opportunities. Pipelines are an essential precursor for meaningful pre-procurement dialogue to assist forward planning, informing investment decision making and to support the development of innovative, value-adding delivery solutions.

The National Infrastructure Plan 2011 published an infrastructure pipeline worth over £250bn.⁶ The Government funded construction pipeline includes over £40bn of projects and programmes over 4 years to 2014/15. We have now appointed Barbour ABI as our partner to manage, update and further develop this pipeline; thereby establishing a long-term model for maintaining transparency about future opportunities for this sector. We have also published the infrastructure pipeline which includes future projects for private and regulated sector clients.

Having developed and published the pipeline, the challenge for government and industry is to identify opportunities in it for jobs and growth which may not have been immediately apparent when the data was not presented in such a co-ordinated way. This improved visibility can help to inform important investment decisions in skills or other capability in UK based companies that, in turn, will support effective procurement and delivery. This includes managing potentially cyclical effects in regions or within sub-sectors which can lead to potential capacity constraints or harm effective delivery.

For example, the report, Tunnelling: A Capability Analysis was produced in collaboration with industry following publication and analysis of the pipeline. This report identified a capacity constraint in tunnelling resources and set out a joint plan to invest in tunnelling engineering skills to meet the forecast demand. With global opportunities for tunnelling skills rising, contracting authorities such as Crossrail and Thames Tideway, are working with us to ensure that there are 450 extra apprentices available to fulfil this demand in time.⁷

⁶ http://www.hm-treasury.gov.uk/infrastructure_pipeline_data.htm

⁷ <http://www.bis.gov.uk/assets/biscore/enterprise/docs/s/12-756-strengthening-supply-chains-public-procurement-tunnelling>

The tunnelling capability analysis also demonstrates how forward visibility can help smooth demand and suppliers can plan projects better as well as work in integrated teams to drive greater efficiency.

We are seeing similar collaborations between local authorities and supply chains which are supporting better strategic decision making by local authorities and improving their engagement with local supply chains.

Collaboration between Local Authorities and the Supply Chain

The South East 7 (SE7) is an alliance between 7 Councils (Brighton and Hove City Council, East Sussex County Council, Hampshire County Council, Kent County Council, Medway Council, Surrey County Council and West Sussex County Council) who are aiming to achieve savings and other benefits by working collaboratively in a number of service areas. Highways is one of four priority service areas that has been identified for joint working. The SE7 authorities deliver highways works programmes through outsourced arrangements, and developing a joint approach with their private sector partners has therefore been key to realising benefits. The Councils and their Service Providers have established a SE7 Supply Chain Management Group, to enable them collectively to reduce costs and improve services, whilst also providing opportunities to improve supplier performance. The group are not only looking at cashable savings but are also creating staff development programmes, such as an MSc in Highway Engineering developed with the University of Brighton.

The SE7 Supply Chain Management Group are now looking at how they can work together to improve sustainability and reduce costs, by working collaboratively with suppliers to create higher value materials from the construction waste arising from their combined highway activities.

The benefits aren't just being seen by large companies: SMEs who often do not have the resources to track a wide range of projects in detail are using pipeline data to engage with Tier one suppliers both pre-procurement and once they are appointed. This improved interaction will help build a vibrant and robust supply chain serving both private and public sector projects.

There is more to be done...

Taking a long term approach to building a sustainable UK supply base and engaging in early strategic dialogue will require a shift in culture and perceptions across the public sector and industry. The work on tunnelling is just the beginning of that journey. Alongside this document we have published

a capability assessment on Building Information Modelling (BIM) to build a world class capability that can create high value export opportunities for the Construction sector.

We recognise that to make real progress we need a robust and sustained programme. This programme needs to be part of a wider strategic approach shared between business and government. That is what the Industrial Strategy for Construction, along with other strategies for key economic infrastructure sectors such as energy, will seek to deliver.

Case study: Industry, government, academia, partnership to assess capability gaps in supply chains

Building on the tunnelling capability assessment published in April 2012, the Infrastructure Alliance are developing a proposal to convene industry, government and academia to use the pipeline of future opportunities in Highways to assess whether there are capability gaps and capacity constraints in construction and infrastructure projects. The findings will be used to inform the construction sector industrial strategy, which will be published in July 2012.

ACTION: AS PART OF THE DEVELOPMENT OF THE INDUSTRIAL STRATEGY FOR CONSTRUCTION, WE WILL BE WORKING WITH INDUSTRY AND ITS CUSTOMER BASE TO DEVELOP PROPOSALS TO IDENTIFY BARRIERS WHICH CROSS MULTIPLE SECTOR BOUNDARIES ON ISSUES SUCH AS SKILLS, TECHNOLOGY, INVESTMENT AND EXPORTS.

Improving the capability of UK supply base: Energy and Transport Infrastructure

Energy

Energy and transport infrastructure are two areas with a significant level of forward investment from public and private sector identified in the published pipelines. This section describes where we are taking action to strengthen and sustain the UK supply base for those areas. The actions described below are indicative of the breadth of the programme that Government is delivering in partnership with industry.

The Government's industrial strategy will cover a number of sectors, including nuclear and offshore wind, where the focus will be on understanding where those sectors are placed at the moment in terms of opportunities for economic growth and job creation, as well as longer-term ambitions and how to achieve those ambitions.

The Offshore Wind sector strategy will be published early next year and build on the work of the Cost Reduction Task Force⁸ and the newly formed Offshore Wind Programme Board. The nuclear sector strategy will address similar themes – essentially, opportunities for growth and job creation – and benefit from other work in train on nuclear R&D capabilities and the nuclear supply chain action plan for the new build programme, both of which have been developed in consultation with industry, developers, professional bodies, academia and trade associations. The nuclear supply chain action plan will be published in December 2012.

Strengthening and building the UK based nuclear supply chain

The civil nuclear sector currently contributes £3.3bn to UK GDP, and the industry employs around 44,000 highly skilled workers in the UK, with over 80,000 jobs being directly or indirectly linked to the industry⁹. The industry covers a significant proportion of the supply chain from manufacturing fuel, operating and maintaining reactors to managing the legacy waste generated from their operation.

⁸ http://www.decc.gov.uk/en/content/cms/meeting_energy/wind/offshore/owcrtf/owcrtf.aspx

⁹ <http://www.niauk.org/facts-and-figures>

With most of the existing fleet of nuclear power stations reaching the end of their lives by 2030, there is an opportunity for new nuclear power stations to play a role in the UK's future low carbon energy mix.¹⁰ It is estimated that the domestic nuclear sector by 2030 is potentially worth £8.0bn/year. Recognising the scale of the opportunities from a new build programme in the UK, the four key objectives of the nuclear supply chain action plan are:

- To maximise UK economic activity and growth from the nuclear sector at national and local level, including employment and business opportunities for the UK supply chain.
- To boost job creation in the nuclear industry, and to ensure that potential skills shortages do not act as a barrier to the future development of the industry in the UK.
- To use the domestic nuclear market to provide a platform for enhancing a sustainable and successful UK civil nuclear industry; and with areas of global commercial advantage, build a domestic platform for export.
- To maintain and develop a vibrant supply chain covering key capabilities to deliver safe, innovative and cost effective clean up of the legacy facilities and to exploit synergies with new build.

The case study below illustrates one example of how such opportunities are being addressed

¹⁰http://webarchive.nationalarchives.gov.uk/20100512172052/http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/white_paper_08/white_paper_08.aspx

Hinkley Point - EDF investment

EDF Energy is progressing plans to build a new twin reactor station at Hinkley Point C in Somerset. EDF is placing contracts with the supply chain to cover activities from main civil engineering work to design of the control rooms and development of components such as turbines, pumps and valves. It will be important that UK companies have the opportunity to supply components and services for that supply chain where they can do so competitively. EDF is working with their key suppliers to invest in developing skills for their project. For example, in May 2012, EDF announced an investment of £1.5m in a Construction Skills Centre at the local Bridgwater College to train 1605 people in 2012/13, including 600 who are currently unemployed and a further £0.5m at Bridgwater Colleges Energy Skills Centre.

Hinkley Point C is just the first of a potential new fleet of nuclear power stations for the UK. Government, along with EDF, other utilities and industry is developing a plan to improve the depth and breadth of skills and capability in the UK to ensure that UK based firms are better placed to fulfil a higher proportion of demand as the programme continues.

Funding from the EOS pilot round demonstrates Government's ability to provide tailored support to the Nuclear supply chain where employers are able to articulate specific requirements, for example, in principal approval has been given to:

- Doosan to help increase the supply of construction welders, including the development of a new Level 4 Diploma;
- Laing O'Rourke to train construction supervisors and steel fixers for the nuclear programme in conjunction with Bridgwater and Gateshead colleges;
- Support was also granted to a consortium of eleven major construction companies to advance the use of apprenticeships and develop leadership and management in the construction sector.

Ref: Benefits from Infrastructure Investment: A case study in Nuclear Engineering, An IPPR Trading Report for EDF Energy, June 2012.

Transport

The Government will be publishing its vision for transport in Spring 2013. This will cover the breadth of the sector including Highways, Rail and Air. Taking Rail as a particular example over the last 30 years rail has become increasingly globalised with complex and interdependent global supply chains and increasing dependence on foreign owned manufacturers. The industry covers passengers, ticketing, freight, train franchising, rolling stock etc. Other segments of the supply chain include infrastructure, civil engineering and consultancy which are dominated by a small number of major engineering contractors e.g. Balfour Beatty and Costain who are all active in the delivery of other areas of economic infrastructure. Some segments are uniquely rail i.e. signalling / rolling stock (including freight). Consequently, there is a range of businesses from multinational manufacturers to SME component suppliers and niche technology companies. This has resulted in a complex mix of customers and suppliers, some regulated (e.g. Network Rail) and others not. The rail Industry employs more than 190,000 people and is worth around £9bn annually (2009) to the UK.

We have recently announced a number of commitments including the £10bn investment in HLOS of which £4.5 billion is for electrification from 2014. We also convened a Rail Roundtable in May 2012 to consider, with a cross section of the Industry, a number of issues including where there were supply chain constraints, how these might be addressed and to develop longer term, strategic relationships between suppliers. At the roundtable meeting on 6 November, the industry identified that the programme for the electrification of track and the introduction of the ERTMS signalling system is likely result in significant skill shortages especially engineers who can integrate new technologies for train and track intercommunication. This has been supported by the intense forecasting work being developed by the National Skills Academy for Rail Engineering (NSARE) for publication in 2013.

National Skills Academy for Railway Engineering

The National Skills Academy for Railway Engineering (NSARE) was established with wide railway industry support to help tackle current and future skills needs within the railway engineering industry. The demand for railway engineering skills within the UK is growing; and there is competing international demand for railway engineers, particularly professional. This is against the backdrop of other sectors such as telecoms, manufacturing, construction, power and nuclear which also need a cadre of similarly qualified engineers. The Office of Rail Regulation commissioned NSARE to undertake a skills forecasting exercise to consider the requirement of Network Rail, Transport for London, Crossrail, HS2, Train and Freight operating companies and their supply chains over the 10-20 years. This report will be published in Spring 2013. However the forecasting model has already demonstrated where there will be skills capacity constraints and at qualification levels. BIS and DfT will work in partnership with NSARE and other key stakeholders to identify relevant solutions to the conclusions of the report.

ACTION: WORKING IN PARTNERSHIP DFT AND BIS WILL FORMALISE THE CONSTITUTION OF THE RAIL ROUNDTABLE BY SPRING 2013. THIS BODY WILL WORK WITH GOVERNMENT TO BUILD A RAILWAY SYSTEM FOR THE 21ST CENTURY.

The Government recognises the considerable voluntary contribution made by individuals, construction and infrastructure trade and professional bodies, the construction supply chain, public and private sector clients, academia and numerous industry groupings that have all made it the success it is. Government would like to acknowledge and to offer its thanks to the contributors to this document.

Image Credit: "Tottenham Court Road ticket hall"- "CrossRail Ltd"

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