



 **mace**

# **A MANIFESTO FOR CONSTRUCTION AND THE BUILT ENVIRONMENT**



INTRODUCTION



Official statistics show that the construction sector contributes in excess of £110bn to the UK economy, employs 2.4 million people and accounts for 17% of all UK registered companies. To put this in context it means construction's direct economic contribution is 7.5 times larger than the automotive sector, while it employs 1.5 million more people.

With a General Election on the way in the near future, uncertainty about what shape any future government may take, or what will happen to Brexit it is important that this significant section of the economy shares its concerns and makes its priorities heard.

Construction's share of the economy has grown from 3.7% in 1997 to over 6% in 2018 making it increasingly important to the nation. In addition to its direct economic benefits, construction is also a crucial enabler of economic prosperity in the same way that education is. For example, the £600bn pipeline of UK infrastructure spending on things like new schools, hospitals, roads and railways is completely dependent on the construction industry's ability to deliver these schemes.

It is clear that any future UK government who ignores the value of the construction industry does so at their peril.

In July 2013, the then government set out its strategy for the construction sector in 'Construction 2025' which included the following overall aims:

- A 33% reduction in both the initial cost of construction and the whole life cost of assets (from 2010/09 levels).
- A 50% reduction in the overall time from inception to completion for new build and refurbished assets (based on industry standards in 2013).
- A 50% reduction in greenhouse gas emissions in the built environment (compared to 1990).
- A 50% reduction in the trade gap between total exports and total imports for construction products and materials (from February 2013 deficit of £6 billion).

Given these ambitious aims and the fact that the industry operates on wafer thin margins of around 0.5% construction needs specific support, focus and assistance from any future government.

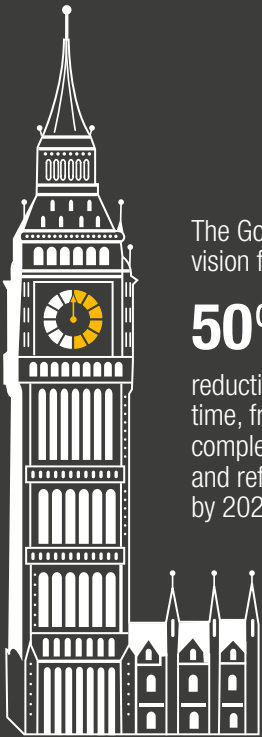
In this 'manifesto' we outline a number of practical policy interventions that can help this critically important industry to prosper and to deliver on the Construction 2025 ambitions outlined in 2013.

**Mark Reynolds**  
**Chief Executive**

The construction sector provides

**2.3m**

jobs, around 6.5% of total UK employment



The Government has a vision for a...

**50%**

reduction in the overall time, from inception to completion, for new build and refurbished assets by 2025

Construction sector output in the UK is currently worth over...



....which equates to...

**6%**

of the UK's total economic output



EXECUTIVE SUMMARY

Rarely has the UK faced such uncertain political times. For the construction and built environment sector, that uncertainty comes at a time when margins are already slim and we face a shortage of skills across the sector.

In our manifesto, we've outlined nine key areas where we think firm commitments from the political parties could help to drive forward change across the sector.

From the future of our migration system to planning reform and helping the construction sector to hit Net Zero by 2050, the policy areas in this manifesto are all key to unlocking the next stage of construction productivity and growth in the UK.

These areas are:

**Achieve net zero carbon emissions**

The built environment is a major contributor to the UK's carbon emissions, and if we are to achieve the target of Net Zero by 2050 we are going to have to change how we build.

**Boost our national infrastructure delivery**

UK infrastructure delivery is already fantastic – but we if improve it, it could be a driver for huge economic growth. To do so we need certainty of pipeline in order for the industry to invest in innovation and skills.

**Radically reform procurement**

Procurement in the UK public sector is slow, expensive and often doesn't produce the best outcomes. Can we reform procurement to deliver for everyone?

**Encouraging innovation and R&D in construction**

With historically low margins, the sector struggles to invest in innovation. How can we encourage the sector to take advantage of the next generation of construction technology?

**Reform the planning system**

By investing in and reforming the system we can help local councils and developers to deliver thousands of much-needed new homes.

**Improve how major projects are planned and delivered**

By planning and delivering projects more effectively we can unlock growth and prevent delays.

**Boosting construction exports**

The construction sector has the potential to be a huge driver of growth in the UK's exports across the globe – but without Government support we will miss out on this opportunity.

**Ensuring our future immigration system works for construction**

Without the right future immigration system, we risk losing access to skills and talents of more than 320,000 non-UK workers in the construction sector, constraining growth in the sector.

**Tackling the skills shortage**

We face a shortage of the skills we need in the construction and built environment sector. How can we ensure that young people are willing to join our industry?

1.

**ACHIEVE NET ZERO  
CARBON EMISSIONS**

ACHIEVE NET ZERO CARBON EMISSIONS

In summer 2019 the UK introduced a legally binding commitment for the country to achieve net zero carbon emissions by 2050. Although the UK only accounts for 1% of global man-made CO<sub>2</sub> emissions, the importance of global warming to the general public is rising and the UK's commitment is a strong statement internationally of our dedication to tackling global climate change.

In 2018 total UK greenhouse gas emissions were 43.5% lower than in 1990 and 2.5% lower than 2017 with the largest share of reductions coming from a move away from coal to other more eco-friendly sources of power.

According to the Office for National Statistics an estimated 33% of CO<sub>2</sub> emissions were from the transport sector, 27% from energy supply, 18% from business and 18% from the residential sector. Looking globally, buildings account for 39% of energy related global CO<sub>2</sub> emissions. Of this contribution, 28% comes from operational carbon with 11% arising from the energy used to produce building and construction materials, usually referred to as 'embodied carbon'.

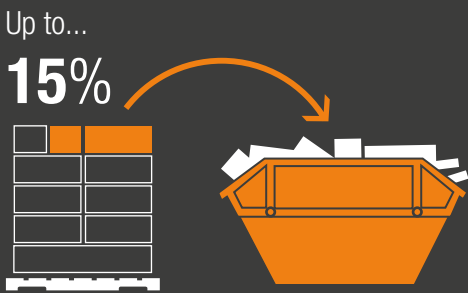
The Department for Business, Energy and Industrial Strategy (BEIS) estimates that around half of all UK emissions can be influenced by construction. Clearly this is a significant possible positive impact and will be critical in helping the UK achieve net zero emissions within the next thirty years.

As well as the enabling role construction has, it also contributes directly to greenhouse gas emissions principally through the following areas identified by BEIS:

- Manufacture of materials and products for use on site
- Distribution and logistics of moving those materials around the UK or importing them from abroad
- On-site operations from things like diesel generators
- In-use emissions which take place in completed buildings
- Refurbishment and demolition of existing buildings

Recognising these important contributions, the government's Construction 2025 strategy pledges the industry to a 50% reduction in greenhouse gas emissions in the built environment (compared to 1990).

To achieve these targets and become 'Net Zero' the Committee on Climate Change suggests the substantial deployment of low-carbon heating (especially heat pumps), high quality wall insulation and more efficient water systems as well as a move to off-site construction which requires far fewer lorry movements. These measures will require a programme whereby existing homes at retrofitted while minimising disruption to residents.



of materials delivered to sites ends up in skips

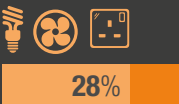
One in six of the homes that city areas will need in the next twenty years are yet to be built.



Globally, buildings account for...



of energy related global CO<sub>2</sub> emissions. Of this contribution...



comes from operational carbon



arising from the energy used to produce building and construction materials

POLICY RECOMMENDATIONS

Tackle the low-carbon skills gap

A recent report from the London School of Economics found that a substantial gap in skills exists in construction as we move to a decarbonised economy. A future government needs to ensure that the CITB and any future Sector Deal look to address the low-carbon skills gap which exists in the existing construction workforce and could hinder the UK's progress.

Use public procurement to promote low-carbon approaches

Through the large pipeline of public sector contracts, any future government will have significant influence over how private sector companies operate and what they choose to prioritise. One of the elements assessed in procurements should be ideas to deliver the project or scheme as low-carbon as possible and how it can contribute to the net zero target. This should drive innovation in this area and reward those investing in R&D and the skills of the future workforce.

Develop a strategy to achieve net zero embodied carbon

Much focus is given to the day to day activities that produce carbon emissions such as car use or air travel. Often not enough focus is given to embodied carbon in buildings. These cover everything from material extraction, manufacturing, transport to site, actual construction, through to refurbishment or demolition. The Government should work with the construction sector to develop a strategy to achieve net zero embodied carbon across the UK construction sector.

Accept the National Infrastructure Commission's recommendations

Taking into account the UK's ambitions to reduce carbon emissions the UK's National Infrastructure Commission made a series of investment recommendations in its National Infrastructure Assessment including half of the UK's power provided by renewables by 2030, £43bn of stable long-term transport funding for regional cities by 2040 and preparing for 100 per cent electric vehicle sales by 2030. These well-researched recommendations need to be taken seriously and accepted by any incoming administration.

2.

**BOOST OUR NATIONAL  
INFRASTRUCTURE  
DELIVERY**

BOOST OUR NATIONAL INFRASTRUCTURE DELIVERY

For any government to have industry buy-in for major public sector infrastructure projects, there needs to be more pipeline certainty, especially given the cost, scale, complexity and prolonged timelines - some stretching over decades. Projects need to be conceived for the long term, with a realistic delivery horizon.

Government procurement accounts for over 30% of total construction expenditure in the UK, and spending on these projects is increasing - according to the National Infrastructure Commission, spending on economic infrastructure had risen to £18.7 billion in 2016-17, from £12.4bn in 2012-13. In addition, there is an estimated total pipeline of £14bn worth of education projects, £4.9bn of health projects and £2.5bn of justice and security projects. These are huge sums of money that require careful and considered management to protect both the public purse and industry investment.

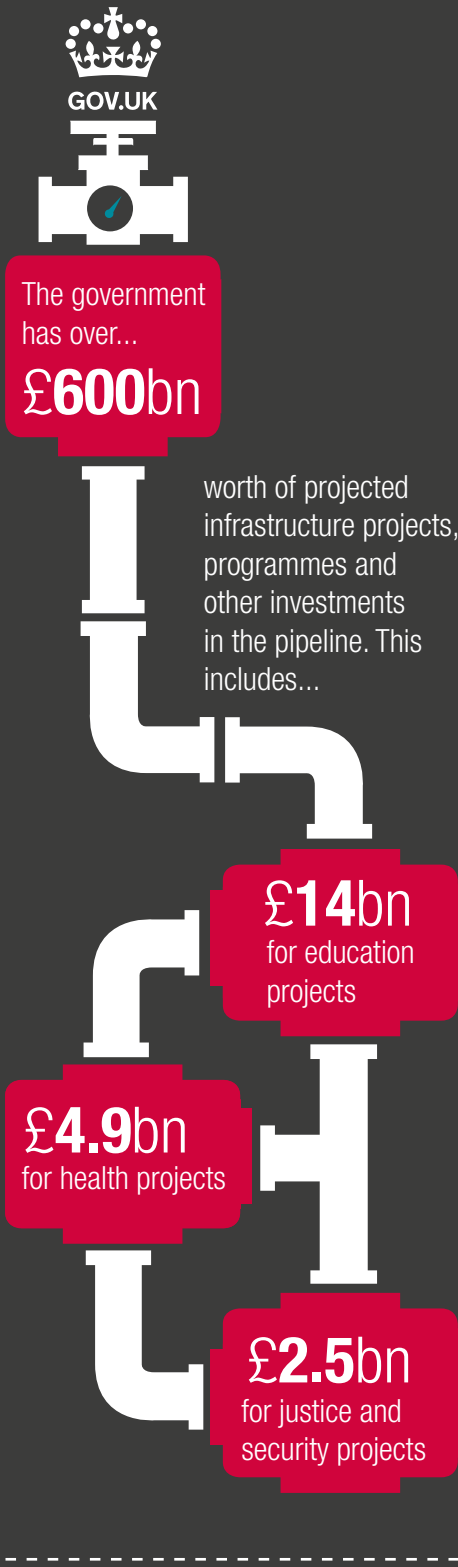
UK government finds this difficult as public sector infrastructure projects are subject to politicisation, perhaps given their often controversial nature and high costs. Take Heathrow and HS2 as two topical examples. This does not make for stable decision-making and requires change to ensure greater independent scrutiny of individual projects and the whole delivery pipeline.

Certainty of pipeline also requires realistic funding forecasts - there is nothing more likely to pit the public or politicians against a project than wildly inflating budgets. If the industry is going to invest in these projects, especially using the latest technological innovations

at its disposal, this will have to improve. Government needs to set out a guaranteed annual capital spend that will survive changes in government. Procurement for the annual capital spend should have a platform approach to design for manufacture and assembly as a requirement. Implementation of this platform approach requires significant upfront investment from the sector for facilities, product design, testing, assurance, and prototyping. The pipeline must be certain, and of a scale and value that guarantees a return after the cost and risk of developing a solution.

The decision-making process is also fragmented and uncoordinated across Whitehall departments. Some seven different government departments have areas of responsibility related to infrastructure policy which heightens the likelihood of cross-departmental fracturing. A more streamlined governmental approach is required if certainty over project pipelines is to be delivered. Similarly, there is no single point of scrutiny in the parliamentary structure, with differing committees and inquiries holding piecemeal investigations rather than taking a holistic approach to the UKs infrastructure needs.

A welcome move was the establishment of the National Infrastructure Commission, set up in 2015 to assess long-term infrastructure needs, monitor government progress in delivering infrastructure projects and programmes and provide recommendations to the government. However, if progress is to be made a number of reforms need to be made too.



POLICY RECOMMENDATIONS

Create a Department for Growth

In many countries around the world, the political responsibility for planning, business regulation, housing and transport are separate. This means that when a mega infrastructure project comes along it cuts across multiple policy areas with a very wide range of stakeholders. Bringing the relevant elements together into a coherent single government department would improve decision-making and efficiency.

Empower the National Infrastructure Commission

Ensuring that the NIC has the correct status, impartiality, and long-term approach to UK infrastructure is necessary. The NIC should be able to take an evidenced based approach to all public sector pipeline decisions, providing independent advice that de-risks the politicisation of projects. They can base their decisions on long-term public need, taking into account public attitudes, as well as spending horizons, which would go some way to ensuring greater industry buy-in and security.

Set up a parliamentary committee for infrastructure

Large scale public infrastructure projects require public support, scrutiny of budget, a sound evidence base, and a long-term horizon. Such a holistic approach can only be delivered through a single vehicle in the parliamentary committee structure and through genuine cross-party scrutiny.

Future governments should think about reforming the NIC by:

1. Backing its spending pledge
2. Putting it on a statutory footing (or making it an executive non-departmental public body)
3. Ensuring joined up decision making
4. Expanding its scope to include housing
5. Providing a way for public feedback to be collected and taken into account

Governments must also ensure that a credible and rigorously tested evidence base exists for decision-making on public sector projects. Without this, the likelihood of any project being subject to continual change and politicisation is far higher, costing industry and the taxpayer more in the long run due to delays, cost overruns and poor project coordination.



3.

**RADICALLY REFORM  
PROCUREMENT**

RADICALLY REFORM PROCUREMENT

*“There are clear shortcomings in the ability of the public sector to run effective and efficient procurement... [there is] a consistent lack of understanding about how to gather requirements, evaluate supplier capabilities, develop relationships or specify outcomes.”*

UK Parliament Public Administration Select Committee

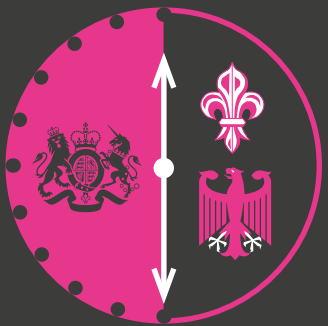
One of the most common issues cited by construction professionals is procurement and the many poor procurement processes that people have experienced. This is particularly true of SMEs of course who lack the resources to comply with many procurement exercises. Poor procurement outcomes are often less visible and obvious than challenges to procurement process, but that does not mean they don't have a significant cost to the taxpayer or impact projects. One notable example is the Magnox contracts in the UK. The Nuclear Decommissioning Authority ran a complex procurement process for £6.2bn of services to decommission two sites. At the end of 2014, the contract was awarded to Cavendish Fluor Partnership (CFP). Three years later, in March 2017, the UK's Secretary of State for Energy announced that the contract with CFP would be terminated nine years early saying that “it became clear... that there is a significant mismatch between the work that was tendered for and the actual work”. In total, over £130m was wasted on the failed procurement which includes the payment paid to CFP for terminating the contract early and the settlement paid to a losing consortium.

Clearly, running procurement exercises and complying with many EU directives can be a complex and formidable task, but we suggest a number of success factors that any future government should think about:

- 1. Reward/penalties** – where reward mechanisms are aligned to outcomes and based on the value brought to the project or programme and exceeding expected outcomes. Where penalties are used in contracts, the level at which they kick in needs to be fair as not to have perverse consequences.
- 2. Risk** – a major sticking point in many procurement processes is infrastructure owners understandably trying to move risk away from themselves to their supply chain, but doing so in an unreasonable way. In reality much of the risk always will sit with the client.
- 3. Focus on outcomes** - the project or programme needs to be crystal clear on the outcomes desired, the leadership's own capability and what it is looking for from an outside delivery partner or integrator.
- 4. Speed of procurement** - many procurement processes go on for many years. Often the delays can be caused by overly risk-averse organisations that lack clear leadership, a realistic assessment of the impact of going so slowly on delivery or because the intended outcome is not clear.

UK public procurement takes...

50%



longer than it does in France or Germany



POLICY RECOMMENDATIONS

Move to outcome based procurement

For complex projects, the future government needs to procure organisations based on outcomes to better utilise the private sector's expertise. There also needs to be a more constructive approach to trying to pass risk down the supply chain. In reality major risks always sit with the client but they pay for them twice when pushing them onto the supply chain. Contracts also need to be carefully thought through to ensure total alignment between the different parties involved and fair pain/gain and incentivisation measures.

Better use of frameworks

Make better use of the many existing frameworks so that companies and the public sector do not have to spend excessive time and money continually taking part in or running procurement exercises. A wide range of frameworks covering all possible services needed already exists and it should be the exception rather than the rule to go outside these.

Prioritise speed in procurement

Despite what some people believe, it is impossible to run a perfect procurement process. The many layers of bureaucracy and compliance involved actually often bring little benefit in terms of the project outcome, but delay projects getting started and trip up organisations due to the complexity of the law. There is a balance between speed and supposed thoroughness. The dial is currently too much towards the latter and needs to move towards the former. A future government should give a commitment that no procurement process should last longer than 12 months from ITT to award.



4.

**ENCOURAGE  
INNOVATION AND R&D  
IN CONSTRUCTION**

ENCOURAGE INNOVATION AND R&D IN CONSTRUCTION

The construction industry is vital to the UK economy, from bridges and roads to hospitals and schools. It is also vital to every one of us for our homes, workplaces and travel. Which is why 73% of people across the world are in agreement that investing in infrastructure is vital to their country's future economic growth. Achieving this in a timely fashion, to a high quality and at affordable cost to the taxpayer will require the industry to adapt more quickly and take advantage of the technological and digital revolutions, as well as seek new forms of investment.

As the 2018 Construction Sector Deal points out, investment is low: 'Business expenditure on R&D in the construction sector was £211m in 2016, 0.9% of total UK business R&D. In contrast, the automotive sector invested over £3.3bn and the aerospace sector over £1.9bn.' Given the wafer thin margins in the industry this is perhaps no surprise as there is little room for investment from within. The sector will therefore need to attract investment from a wider range of external investors and use new forms of funding, which will require the support of the financial sector and government.

Construction also faces an ongoing productivity problem. According to the Office for National Statistics, the UK economy produces on average £31 of GVA per hour worked compared to £25 of GVA per hour in construction. If this productivity gap was closed, the construction industry would produce an extra £100bn of economic output every year and contribute £40bn more in tax revenues.

However, without the free cash to invest and with a keen eye on risk mitigation, it is far easier for the

big players in the sector to sit on their hands and keep delivering the same methodologies they have for decades. Instead what is needed is a greater adoption of new construction methods.

It is now widely recognised that Modern Methods of Construction (MMC) and Smart Manufacturing are the future of the worldwide construction industry, yet assistance is needed to ensure that they can be embedded right across the sector, throughout businesses and projects large and small.

As the number of construction technology start-ups (ConTech) grows and investment in the industry from venture capital firms builds, it has become increasingly clear that this is an industry where it is particularly difficult for new businesses or operating models to scale effectively. High costs of market entry combined with a natural resistance from clients to trial un-proven methods have meant that many ConTech firms have failed to build a sustainable market share despite a positive initial round of investment. How these innovations are applied and how prevalently requires more work, not to mention the partnerships and collaboration to make it happen.

The UK already has some superb R&D facilities and platforms in the sector, yet, if the UK is to attract the investment to ensure it can continue innovating for the future, these will have to increase in number, scale and geographical spread. It makes sense to ensure that these centres of excellence are co-located alongside other projects, such as university campuses, and potential freeports. This should be looked at by any future Construction Sector Deal.

73% of people across the world agree that investing in infrastructure is vital to their country's future economic growth



Global Infrastructure Rankings

1 <sup>st</sup>	Singapore
2 <sup>nd</sup>	Hong Kong
3 <sup>rd</sup>	Switzerland
9 <sup>th</sup>	United States
11 <sup>th</sup>	United Kingdom
15 <sup>th</sup>	United Arab Emirates
31 <sup>st</sup>	Australia
63 <sup>rd</sup>	India
124 <sup>th</sup>	Nigeria

POLICY RECOMMENDATIONS

Create Construction Engineering and Manufacturing Enterprise Zones across the UK

Standardised construction components could be manufactured anywhere in the UK, transforming the geography of the construction industry. An Enterprise Zone model would accelerate regional development capability in construction engineering and manufacturing and increasing R&D tax credits for construction from 12% to 20% should be considered as an incentive to innovate.

To support the Enterprise Zone proposition, the government should earmark unused or underused urban spaces for pop-up consolidation centres and require local government to identify suitable locations for these in their Local Plans. In addition, government departments should promote the idea of Construction Engineering and Manufacturing Enterprise Zones when they are working with different areas on their local Industrial Strategies.

Overhaul the funding model for innovation in UK Construction

The current funding model does not incentivise the industry in a way that will deliver current recommendations. Existing funding will be most effective if it is applied to strategic Government investments, rather than delivered in small packages supporting small-scale innovation projects. This can be achieved through the creation of a series of 'strategic innovation challenges' that aim to transform delivery of specific programmes of investment in the built environment.

Make the UK construction industry the best place for foreign investment

Future governments need to ensure that regulations in the industry are simplified, this includes making local and national planning rules more transparent and understandable to foreign investors. What's more, there are huge opportunities for investment within the UK, but these are not always known to overseas investors or packaged in the right way. A 'playbook' for external investors looking to buy into the UK infrastructure sector should be a priority for policy makers. Future policy makers should also consider offering tax incentives to foreign companies looking to invest in the UK's public infrastructure.

5.

**REFORM THE PLANNING  
SYSTEM**



REFORM THE PLANNING SYSTEM

The planning system causes a rationing of land and increases prices in areas of most demand, exacerbates inequality as well as slowing down the delivery of new homes and major infrastructure.

The UK has failed to consistently build enough new homes over the last 50 years which has led to the current situation where many young people struggle to get on the housing ladder. Current estimates suggest that 300,000 new homes need to be delivered every year, which the Government has accepted as a target for the UK to achieve.

Part of the issue is caused by the bureaucracy and process that applicants need to go through and partly by resource constraints. A 2018 National Audit Office report found that Local Authority spending on planning and development had fallen by 52.8% in real terms since 2010.

The last Labour government took positive steps forward in speeding up planning for major new infrastructure thanks to the Planning Act 2008 which established a fixed timetable for applications, an independent body that made decisions was created and National Policy Statements. 73 Development Consent Orders have now been made since the approach was created. At the moment, the scheme only applies to infrastructure projects and specifically excludes large housing developments.

We need to build...

300,000

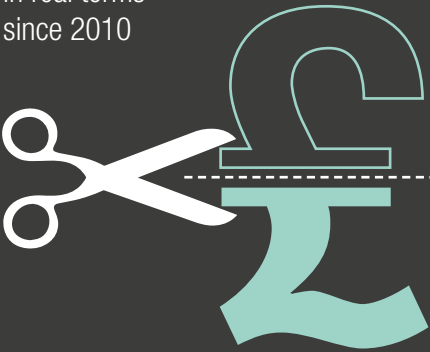
new homes a year in the UK to meet demand



Local Authority spending on planning and development has fallen by...

52.8%

in real terms since 2010



POLICY RECOMMENDATIONS

Loosen planning constraints on major projects

If a major project needs to apply for planning now, but will not be delivered for 15 years there needs to be enough flexibility in the planning system to take account of evolving technology and societal trends.

For example, many large UK schemes go through a Development Consent Order process. Due to the wording of the regulations and the original law it is unclear what level of detail should be provided to gain approval for the scheme. This can lead to over-interpretation, significant design detail too early and constraining the project's ability to innovate which then often inflates costs and timescales.

Invest in the planning system

Without an effective planning system, development is constrained and the quality of decision-making falls. The recent cuts to Local Authority budgets has meant a reduction in the public sector workforce able to receive, examine and consider new applications, which inevitably causes hold ups. Many of these schemes have larger economic, societal and productivity benefits which makes it a counterproductive area to cut personnel from. Councils need more funding available to invest in their planning departments and to see much needed targeted recruitment of planning professionals to help speed up the process.

Shift to a zoning system for planning

The current planning system does not effectively allow housing supply to respond to local demand. Planning reform could help to allow for more flexible local planning and so help to end housing shortages in local authorities, towns and cities across the UK. The planning system should shift from a discretionary, permission-based system towards a flexible zoning system that allows most residential development by right, as in Japan or parts of the USA.

Allow large housing developments to use the DCO process

The reforms made by the Planning Act 2008 have largely been positive and increased the rate at which major infrastructure can be delivered while also providing more certainty to those involved due to the fixed timetable that applications must follow. The scheme should be expanded to allow large housing developments to make DCO applications.

6.

**IMPROVE HOW MAJOR  
PROJECTS ARE PLANNED  
AND DELIVERED**

IMPROVE HOW MAJOR PROJECTS ARE PLANNED AND DELIVERED

Oxford University estimates that somewhere between 70–80% of large infrastructure projects go over programme or budget. Given that most large schemes are taxpayer funded and managed, this is clear evidence of a systematic failure in public sector project planning and delivery.

This in part, of course, is due to the increasing scale and complexity of infrastructure projects more than doubling over the last century. For example, the cost of the UK’s proposed new major railway line, HS2, is equivalent in value to an economy the size of Sri Lanka.

Major projects are complex systems and, as the life of a project goes on, the capacity for innovation is reduced as the constraints inadvertently built into the project in its earlier stages hamper innovation.

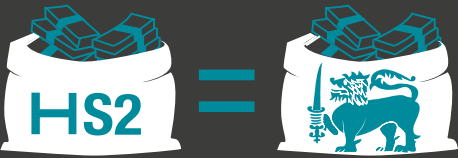
As the UK’s National Audit Office says, “project failure in value for money terms is often built in when a project is initiated...we have observed that government is often too quick to arrive at a preferred solution, rejecting alternatives that may prove better value. Teams can also be under pressure from ministers or others to make early commitments about what a project will cost.”

Over the life of major projects often many different suppliers and partners come and go which can mean a loss of institutional knowledge, consistency and focus on achieving the project’s outcome. As the life of a project goes on, the capacity for innovation is also often reduced as the constraints inadvertently built into the project in its earlier stages hamper innovation.

This can be particularly true depending on when the scheme applies for its planning permission.

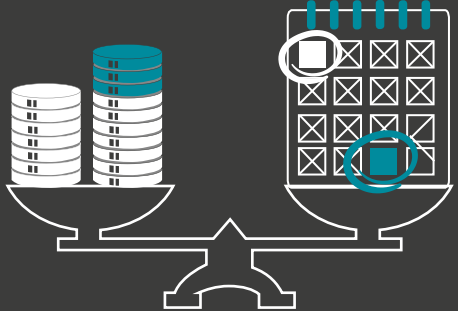
Predicting the future is hard, especially when we are talking about projects to be delivered decades into the future. Politicians and infrastructure owners need to accept the complexity and difficulty in projecting costs and programmes decades into the future. Project teams themselves also of course have a vested interest in their schemes proceeding which can sometimes lead to overly optimistic numbers being forecast. Large projects need to face independent challenge.

The cost of HS2 is equivalent to the economy of Sri Lanka



70–80%

of all large projects globally experience cost or programme overruns



POLICY RECOMMENDATIONS

Change how projects are forecast

Treat projects in the same way the Bank of England treats GDP projections. At the start of a project, where the scope is uncertain, the cost range is quite wide and as time progresses things become clearer the range can tighten and prices become more certain. Projects and governments should consider taking this approach which is much more realistic about the complexities and uncertainties involved.

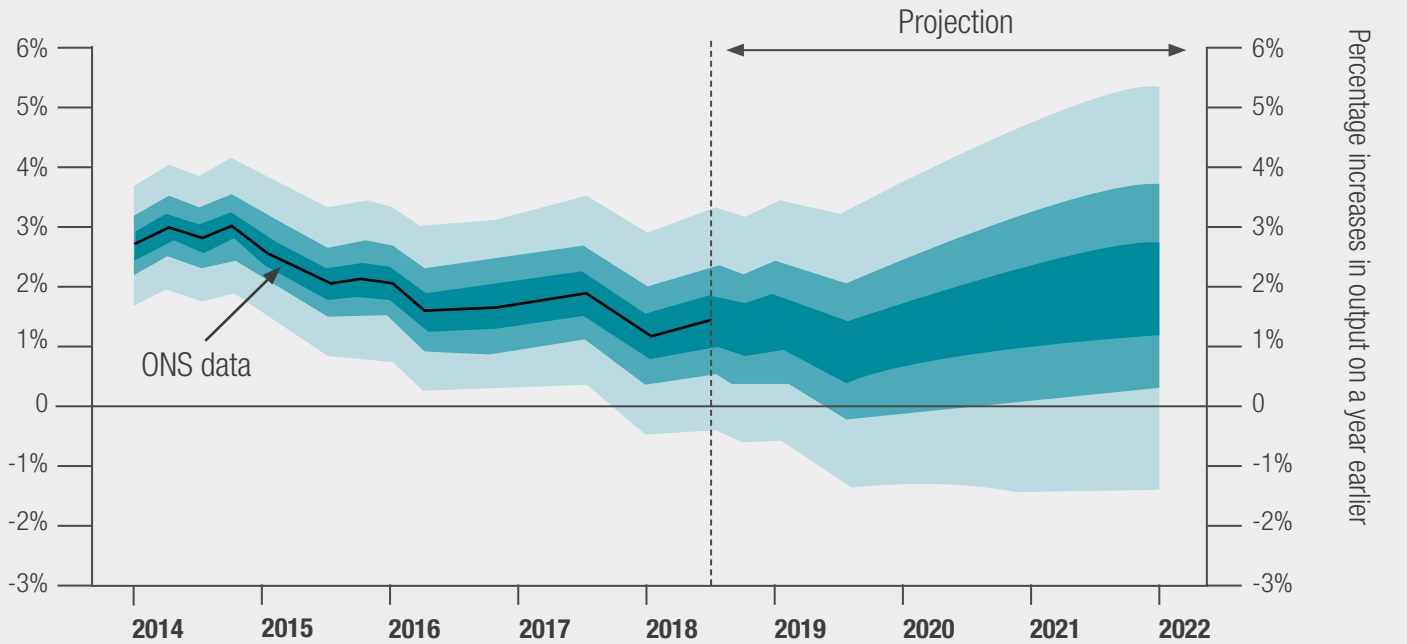
Have a project ‘integrator’

It is far better for large infrastructure projects to find a long-term trusted partner who is involved on the project from start to completion and who can be the consistent presence, integrating and bringing together the different suppliers as required and is incentivised on the successful outcome of the whole project rather than one discrete element.

Create an independent scrutiny panel

Create a panel of industry ‘heavyweights’ outside normal public sector structures to challenge the project scope, timescales and costs. Their sole role should be rigorous challenge. This independent scrutiny panel needs to have the teeth and executive support to get the information they need for proper challenge. Governments may choose to use this panel to challenge their top 10, 20 or 50 projects at regular intervals.

GDP projection based on market interest rate expectations, other policy measures as announced





7.

## **BOOSTING CONSTRUCTION EXPORTS**

BOOSTING CONSTRUCTION EXPORTS

The global infrastructure market is currently worth \$2.5 trillion, and by 2030, \$5.25 trillion will be spent annually. This is a market that is estimated to cumulatively be worth £49 trillion over the next 10 years.

As a growing sector, it is opening new opportunities in markets across Asia, the Middle East and Latin America, with estimates that in the next decades, 65% of growth in construction will happen in emerging countries. Our knowledge, technological expertise and high-quality products and services are in high demand across the world and the UK is in a good position to deliver on these. Whilst the industry is already a fairly successful exporter, it needs a significant boost if it is to claim its rightful piece of this growing global pie and government should be putting more effort into promoting the huge latent export potential in this sector.

The UK is the world’s 5th biggest economy but the world’s second largest exporter of services - exporting some \$378 billion - ahead of Germany, France and China. However, according to the ONS, construction, as a percentage of UK services exports decreased between 2016 and 2017, down from £1.4 billion to £963 million respectively - only one of four sectors in the economy that saw a decrease. In terms of goods, the picture isn’t much better as the UK trade deficit in construction materials and components continued to widen in 2017, with the value of imports more than double the value of exports. This is despite the fact the UK’s exports of goods and services grew by nearly 40% since 2010.

But when it comes to exporting, the construction sector is at somewhat of a structural disadvantage especially given the prevalence of small- and medium-sized businesses (SMEs). The Government's Construction Strategy 2025 reported that the industry was dominated by some 956,000 SMEs accounting for 99% of businesses in the sector. However, only around 10% of total UK SMEs export, compared to over 40% of large businesses - an exporting problem for the construction industry at large.

Exporting is an expensive business but can also yield high returns. To export, many companies need capital upfront, and, depending on the market, there is often high risk with no guarantees. Issues such as the risk of late or non-payment of contracts, access to finance, regulatory barriers to trade, lack of affordable insurance and complex regulations overseas, can all hamper businesses willingness and ability to sell their goods and services, especially for smaller enterprises. UK Export Finance (UKEF) is a key enabler of UK businesses exporting, including by providing finance and insurance for viable exports. However, common complaints in the construction sector related to the complexity, lack of up-to-date information, and too long processes that come with access to finance via UKEF.




In 10 years’ time we will be spending...

\$5.25tn



...a year on infrastructure globally

By 2030 the amount spent on infrastructure each year will be...

	\$774bn
USA	
	\$432bn
India	
	\$182bn
Canada	
	\$142bn
Australia	
	\$86bn
United Kingdom	
	\$50bn
South Africa	
	\$48bn
Nigeria	
	\$6.5bn
Kenya	

POLICY RECOMMENDATIONS

More support for SMEs to scale up and begin their exporting journey

Construction needs more specific, targeted support to help its SMEs scale up or support them on their exporting journey. UKEF should be more transparent and easier for businesses to access, including ensuring that up to date information is available at the time of application. Access to finance for businesses to scale up should be better advertised and more easily accessible with a specific campaign targeted at SMEs in the construction industry looking to access financial support.

Better promotion of the UK construction industry abroad

Given the current and growing opportunities on the world stage for the UK construction industry, the government needs to do better at promoting the skills and expertise that the UK possesses in this sector. The UKs “GREAT” brand should promote the construction industry in key markets with a ‘Construction is GREAT” campaign. Any future government should also do more to promote UK construction firms to attend trade fairs abroad, and attract high profile events to the UK.

More support for government to government contracts

When travelling abroad, senior ministers should be required to take into account the global infrastructure pipeline and ensure high level and consistent engagement with relevant governments to promote UK construction companies.

Reform and boost Infrastructure Exports: UK (IE:UK)

IE:UK needs to be given a wider remit and strengthened powers to better support UK primes and SMEs overseas - both in finding opportunities for UK businesses and supporting them to win contracts. Government should consider sponsoring IE:UK personnel in key embassies to drive UK consortia forward.

The government needs to take sustained and targeted approach to promoting our exporting businesses abroad. Globally, infrastructure projects are often public sector and government led which requires companies to rely on governments to engage in government to government (G2G) dialogues - often lengthy and sensitive processes.

What’s more, our international competitors have historically been better at supporting their companies abroad, ensuring their SMEs and primes are top of the pile when contracts are awarded.

8.

**ENSURING OUR  
FUTURE IMMIGRATION  
SYSTEM WORKS FOR  
CONSTRUCTION**



ENSURING OUR FUTURE IMMIGRATION SYSTEM WORKS FOR CONSTRUCTION

Labour Force Survey statistics show that 12.6% of construction workers were born outside the UK and 5.7% were born in EU accession countries (Eastern European countries that joined after 2004). This is particularly true in London where, according to the CITB, 54% of the workforce is coming from the EU. These figures however, may not be truly representative of a sector where the majority of businesses that make it up are SMEs and often those that are self-employed. The CITB found that nearly half of EU migrant workers in the UK are self-employed which could be missed by future immigration proposals.

If free movement from the EU ends this could cause some short to medium term problems for the construction sector which will take time to train and recruit enough UK workers.

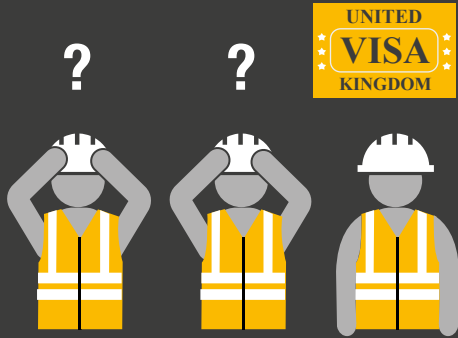
The suggestion of the current government is for a new ‘Australian-style points based’ immigration system to be introduced along with a range of caps. This system will require a visa application to be made which may cause significant issues. The CITB’s recent Migration and Construction report found that two-thirds of construction employers find the visa system difficult and only 3% have experience of using it.

Between 2004–2014 the proportion of migrants working in UK construction doubled from 6% to 12%, with estimates that over...



...of the London construction workforce is now made up of EU labour

2  
—  
3 of construction employers find the visa system difficult



POLICY RECOMMENDATIONS

Ensure a future immigration system takes into account the unique nature of the construction industry

Future governments should ensure that those sectors that rely on a labour force from outside the UK, can continue to do so until they have developed enough native skills. This requires an immigration system not based purely on arbitrary salary thresholds but on key skills and occupations that the economy needs. In addition, the currently proposed temporary worker scheme, if implemented, needs to be increased in length from 12 to 24 months.

Flexible arrangements for existing construction sector workers

The amount of those in the construction profession who are self-employed or work in small businesses requires government to be flexible in the regime it chooses to operate. Occupation-based visas and new intermediary mechanisms for such workers should be carefully considered.

Work with industry to ensure highly skilled workers are retained after Brexit

Any future government needs to ensure that highly skilled workers in the built environment, such as architects, continue to be covered by Mode 4 provisions in trade agreements or, where possible, separate Mutual Recognition Agreements should be negotiated with third-party countries. Umbrella sponsorship should also be considered for self-employed migrant workers.

9.

**TACKLING THE SKILLS  
SHORTAGE AND  
ENCOURAGING MORE  
YOUNG PEOPLE INTO  
CONSTRUCTION**

TACKLING THE SKILLS SHORTAGE AND ENCOURAGING MORE YOUNG PEOPLE INTO CONSTRUCTION

One of the key challenges for the UK construction industry is future skills - the recruitment, retention and reskilling of the workforce. This is particularly important as construction has a hugely labour intensive business model and one which sees high levels of self-employment.

**Recruitment** - the construction industry needs to be able to attract young people into a sector if it is to have a sustainable workforce going forward - only 10% of the construction workforce is under 25, while 32% are over 50. This has proven difficult for an industry whose image as an employer is not always a positive one and that has been slow to adapt to the times. Interest in issues such as climate change and sustainability have the potential to draw young people into the sector across a range of construction disciplines.

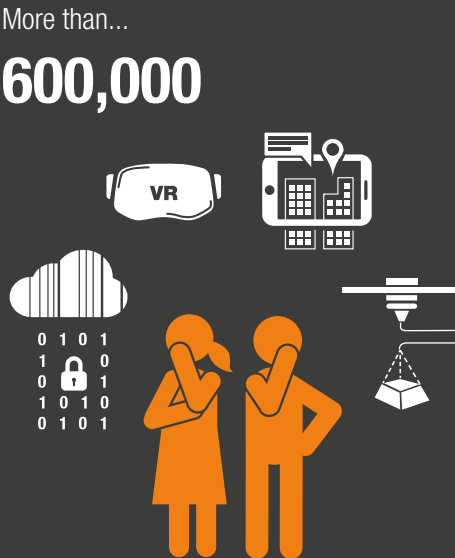
**Retention** - it is all very well attracting people into the industry but they then need to stay. Those that join the sector directly from school, apprenticeships or higher education need access to high quality work experience placements. What's more, they need to know that they can continue to improve and learn throughout their careers. Many of the skills required now and for the future, are those that the younger generation have, based around digital technology. Improving working conditions on construction sites; ensuring a more stable job market; and diversifying the sector, including in senior role models, will help to ensure that those who join, are happy to stay.

**Re-skilling** - the existing generation need help adapting to new technologies and manufacturing techniques that the sector needs to adopt for the future. It also needs to ensure that the 'artisan' skills of the older generation in traditional construction techniques are not lost. Previous research by Mace has demonstrated the sheer scale of the re-skilling that is likely to be required as we move to the next evolution of the construction industry – more than 600,000 construction workers will need to be retrained by 2024.

There is already work being done, including through the Construction Leadership Council (CLC) and the Construction Industry Training Board (CITB) to address the construction skills gap, including commitments to increase the number of apprenticeships in the industry. Onsite construction is amongst one of the first T levels to be offered in the UK. However, construction is falling behind other sectors of the economy when it comes to the number of apprenticeship starts.

Currently apprenticeships in construction are concentrated in small enterprises, some 72% of the total. Over half of the apprenticeship starts in 2017/18 were in two sector areas which did not include construction, and over the last ten years they have plateaued beginning at 21,000 in 2009/10, with lows of 14,000 in 2011/12 and 2012/13, increasing to 23,000 in 2017/18. This is far behind other sectors including Business, Administration and Law (111,000 starts); Health, Public Services and Care (88,000 starts) and; Engineering and Manufacturing Technologies (59,000 starts). More needs to be done to create opportunities in construction.

Nearly...  
**90%**  
of infrastructure owners feel the need to bring in outside people to help



people will need to be retrained by 2024 to keep up with changes in technology



POLICY RECOMMENDATIONS

Increase in the number of available apprenticeships

The government has already pledged to increase apprenticeships in the construction sector to 25,000 by 2020, but this is far below other sectors in the UK economy. Government support to ensure that larger businesses are supporting apprenticeships alongside SMEs, is vitally important to ensure the survival of the industry. A future government also needs to look at how the Apprenticeship Levy operates in reality and what can be done to make it more accessible.

Reform the Apprenticeship Levy

Since the introduction of the Levy in 2017, many businesses have found it too restrictive and hard to access. If a future government truly want to bring about an apprenticeship revolution it needs to be made more flexible. Businesses should be allowed to use the funds to pay for training in 'soft-skills' that help people become work ready, the provision of travel funding outside of London and the removal of the 20% off the job learning requirement which can put off employers.

Better and more secure jobs

A future government needs to ensure that high quality work experience placements for those in higher and university education are available. Construction has historically been a fragmented industry, with over 40% of industry workers (higher than any other sector) being self employed which limits training and investment in skills. Future public sector contracts should demand direct employment to reverse this trend.

Work with schools to promote the industry

The construction industry requires a range of skills which T levels, apprenticeships and work placements can provide. There needs to be more awareness of the range of options and careers available to school age children in the construction sector. Promoting the construction sector to young people, at an early enough age, will help to ensure that there is diversity across the sector, including attracting more women and ethnic minorities.

Support the reform and development of the CITB

The Construction Industry Training Board needs continued support to ensure it is strategic and focussed on the future skills required in the sector. This includes being prepared to take bold decisions and ensure that training is in place to upskill the current workforce.