

**Cynulliad Cenedlaethol Cymru | National Assembly for Wales**  
**Y Pwyllgor Materion Allanol a Deddfwriaeth Ychwanegol | External Affairs and**  
**Additional Legislation Committee**  
**Y goblygiadau i Gymru wrth i Brydain adael yr Undeb Ewropeaidd | Implications for**  
**Wales of Britain exiting the European Union**  
**IOB 49 Ymateb gan Sefydliad Brenhinol y Syrfewyr Siartredig**  
**Evidence from Royal Institution of Chartered Surveyors RICS**

Dear Sir,

## **Wales and Brexit**

Thank you for the opportunity to provide input.

RICS Wales is the principal body representing professionals employed in the land, property and construction sector and represents some 4000 members divided into 17 professional groups. As part of our Royal Charter we have a commitment to provide advice to the Government of the day and in doing so we have an obligation to bear in mind the public interest as well as the interest of our members

We first would like to highlight six priorities for Brexit by our RICS President, Amanda Clack FRICS

The six priorities are:

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### **1. Access to skills**

The greatest strength of our sector is the skill of our workforce. The free movement of labour within the EU has been vital to the growth and flexibility)of the construction sector. Access to a skilled workforce of the highest quality and a focus on developing the next generation of home-grown talent are critical to ensure we can build the homes businesses and infrastructure we need to compete globally.

We therefore urge the Government to explore options and approaches to ensure that this access is not impeded to the detriment of the built environment.

### **2. Common strands**

We believe that the UK has much to gain from pursuing an approach that makes it easier to do business with trading partners new and old. Access to markets in the EU and around the world has transformed the UK construction sector. The mutual recognition of qualifications and the

development of common technical standards have reduced the barriers our members face working abroad.

Reducing tariffs and harmonising standards have helped UK firms of all sizes expand to Europe and beyond. These common approaches have also meant that UK businesses can support best-practice in environmental and product standards, supporting efforts on global issues such as climate change. It is imperative that governments in the UK protect and promote the UK's role as a leader in environmental and consumer protection standards.

### **3. Research excellence**

Our members have benefitted from the collaborative research that the EU has enabled and promoted. Our future success depends on maintaining these relationships, while forging new ties with research organisations around the world.

In addition the continued success of our world class university courses training our young people in the built environment is essential to the underpinning of research and the continued supply of labour for construction and allied activities.

### **4. Infrastructure investment**

The UK's global competitiveness will be hampered unless we do more to tackle the major infrastructure challenges we face. With a housing crisis, and growing concerns around energy, telecoms, road, rail and airport capacity, the Governments in the UK must seek and entice prospective investors to consider infrastructure of all kinds.

Providing confidence to the construction industry through infrastructure funding and development will provide stability during a period of uncertainty and ensure that the UK is well-placed to take advantage of growth opportunities in the future.

### **5. Devolution commitment**

The referendum has brought divide between the different parts of the UK into sharp focus. Our organisations welcome the recent commitment to continuing the Northern Powerhouse and we

believe that further devolution from Whitehall should be a key priority for the UK government as powers move from the European Commission.

Devolution will enable a rebalancing of the economy so that all parts of the UK can benefit from any new opportunities arising from the UK's new relationship with the European Union, and is an effective way of ensuring infrastructure spending is efficient, timely, coordinated and accountable.

## **6. Community development**

Through the extensive skills and experience of our members we are best-placed to advise on how the built environment can unlock new opportunities and combat existing challenges, as well as provide places for people to live, work and play.

Leaving the EU could present a great opportunity for the UK, but it should not be associated with a drive to the bottom in the environmental and building standards which future generations will live with.

Recent RICS figures have shown that we are in the grip of our worst construction skills crisis in almost 20 years. There is a real concern within our industry that if access to a skilled workforce is further restricted, Britain could stop building. My colleagues and I would urge Government to keep this at the front of their minds when they come to negotiate our withdrawal from the EU.

We know that infrastructure and construction investment is key to Britain's economic growth. The uncertainty that immediately followed the referendum outcome led to decline in economic growth, increased market volatility and a reduction in UK infrastructure investment.

While the initial post-Brexit slump appears to have stabilised, it is important that the Government focuses on maintaining infrastructure and construction investment leading up to and after Brexit, ensuring the right conditions are in place to attract infrastructure investors in all sectors across the UK. As we approach an unprecedented period of uncertainty, it is fundamental the government prioritises infrastructure and it remains at the forefront of maintaining a strong economy.

If you have any queries please do not hesitate to contact me.

Yours sincerely,

Policy Manager

## **Brexit Leadership Group – Skills**

### **The Brexit Infrastructure Group**

The Brexit Infrastructure group was established to ensure that Government negotiators are fully informed of the key issues that affect our ability to deliver infrastructure that supports a prosperous society and economy, both during and beyond the UK-EU negotiations.

Looking across infrastructure investment, skills, codes and standards, research and innovation, and procurement the Brexit Infrastructure Group is an authoritative source of information for infrastructure and construction advice for Government during this period of uncertainty.

This briefing covers the skills strand and has been produced by the below working group chaired by Amanda Clack at RICS.

#### **Skills working group**

Chair – Amanda Clack (RICS)	Simon Rawlinson (Arcadis)
Jeremy Blackburn (RICS)	Mark Reynolds (Mace)
Tony Burton (Gardiner & Theobald)	Laura Smith (Build UK)
Abdul Choudhury (RICS)	Beth West (HS2)
Isabel Coman (Costain)	

#### **Summary**

A number of factors have contributed to the skills shortage in the construction sector including cyclical construction industry workload, a risk-averse culture, its demographic makeup and its business model. This is not conducive to skills development.

Brexit presents an additional layer of complexity to this problem. In the long term, with effective partnership between government and industry we can address these skills challenges. However, in the short to medium term, it is critical that we have access to skills from overseas in order to deliver against the commitments for infrastructure, housebuilding and broader construction.

#### **UK construction sector skills profile - Impact of Brexit**

Losses suffered in the recession, coupled with a lack of diversity and aging workforce work are holding back the sector. We have yet to recover fully the 270,000 construction sector jobs lost<sup>1</sup> in the recession. Moreover 430,000 are set to retire<sup>2</sup> between 2010 and 2020 as the industry faces an ageing workforce with around 30% being over 50<sup>3</sup>. The sector is at a 'skills cliff edge' with numbers of new entrants failing to offset those retiring. Upskilling the existing workforce to utilise new technologies, to increased productivity and retain expertise will help to soften the impact but this will not resolve the underlying issues.

<sup>1</sup> [Nomis: official labour market statistics](#) - custom query on workforce jobs by industry (accessed 22/08/16)

<sup>2</sup> UK Commission for Employment and Skills (2012): [Sector Skills Insights - Construction](#) (Evidence report 50)

<sup>3</sup> [DWP: Statistics on workers by sector](#)

The industry is finding it difficult to attract new talent, particularly women and minority groups which is limiting. CITB<sup>4</sup> estimate that more than 230,000 new recruits will be needed between 2016 - 2020 to meet expected construction demand, that's not factoring losses due to retirement. The long timescales involved in training new construction workers means the short to medium term outlook for the UK in meeting its skills need is bleak.

Moreover, the skills profile varies by trade. For example, anecdotally, the majority of plumbers are EU national whilst a majority of electricians are UK national. This complicates the way in which skills issues should be addressed. General industry figures do not accurately capture the extent of the skills shortage in certain trades. A project with shortfall in just one key skill area will be delayed as a result.

Brexit exacerbates the issue leading to increased uncertainty not only to existing EU migrants, but also the potential to attract future talent. The ONS figures<sup>5</sup> suggests that in Q1 2016 around 9% (194,000) of the construction workforce in the UK were EU nationals. Regionally the figures are more pronounced with migrants comprising 54% of construction workers in London<sup>6</sup>. This will mean that the impact of Brexit will be felt unevenly between urban and rural communities.

The RICS' Construction market survey data show that skills shortages remained one of the main factors' surveyors felt was impeding growth. The UK's capacity to deliver on housing and major infrastructure projects will be reduced by at least 7% (more in London) if the skills issue is not addressed. This comes at a time where the government aims to double housing delivery and embark on a series of large scale infrastructure projects. Separately, there are indications that construction firms have had to delay starts or turn down work due to a shortage of staff.

### **Government policy**

The government ambition for 3 million new apprenticeships in this Parliament, and the introduction of degree equivalent apprenticeships, are laudable. However, although attracting the 865,000 16-24 year olds who are not in education, training or employment<sup>7</sup> can go some way to reaching the target, government and industry must find a way to convince a significant proportion of school leavers to opt for apprenticeships over a degree.

The introduction of the apprenticeship levy also presents a challenge to the sector. Apprenticeships on offer do not meet the needs of industry as a whole as skills are often too specific to firms providing the training. In addition, the costs of training some construction workers are more than the proposed allocated funding cap under the new levy arrangements. For example a steeplejack apprenticeship was allocated £6,000 but industry estimates that it actually costs £20,000.<sup>8</sup> This has led to concerns that our industry might lose out if funds raised through the levy aren't ring fenced. Given the uncertainty and tight timescales for implementation the government should delay the introduction of the levy until 2018 to develop programmes to deliver the skills we need.

<sup>4</sup> Construction industry training board (CITB 2016) : Industry Insights - Construction Skills Network ([accessible online](#))

<sup>5</sup> Office of National Statistics (2016) Labour Force Survey for January - March 2016

<sup>6</sup> Rolfe and Hudson- Sharp (2016) - The impact of free movement on the labor market: case studies of hospitality, food processing and construction

<sup>7</sup> House of commons library: Briefing paper: NEET: Young People Not in Education, Employment or Training

<sup>8</sup> Build UK

The government also intends to provide a long term forward view of projects and programmes through the National Infrastructure Delivery Plan<sup>9</sup>, the National Infrastructure Commission and in the National Infrastructure Plan for Skills. Delivery of these projects, some identified as nationally significant, will be severely constrained due to a lack of skills.

### **Solutions and recommendations**

- **We must secure the rights of existing EU workforce in the UK construction sector.** This must be done in conjunction with development of a workable skills based migration system that provides access to skills. One of the easiest ways in which this can be done is by offering non-UK construction students opportunities to remain and work in the sector for a set period of time following the completion of studies.
- **A long term programme is needed to evolve skills and practices in line with cultural and technological change to attract a diverse workforce, reduce the intensiveness of labour and change industry skills needs.** This involves developing means to upskill an ageing workforce to managerial/consultancy level (or acting in a more formal mentoring capacity) to retain valuable skills and expertise, understanding and supporting (or accelerating) investment in emergence of new technologies and their impact on skill (e.g. potential for cross industry recruitment from manufacturing, IT and design) and redesigning apprenticeship schemes to deliver multiple and transferable skills in response to industry demands.
- **A new pathway for entry into the sector at a post graduate level for established professionals wanting to transition into the construction sector. With appropriate levels of higher apprenticeship funding.**

Successfully resolving our skills issues would make the UK a world leader in the field of technical construction expertise, which could significantly strengthen our position as an exporter of skills and services.

<sup>9</sup> HM Treasury (2016): National Infrastructure Delivery Plan 2016–2021 (available online)

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**Submitted electronically**

16<sup>th</sup> November 2016

**Brexit Infrastructure Group submission to the Exiting the European Union Committee to the 'UK's negotiating objectives for withdrawal from EU inquiry'**

The Brexit Infrastructure Group was established following the outcome of the EU referendum.

The group is gathering data and evidence on what it agrees are the fundamental issues facing the construction industry and infrastructure sector in order to inform the Brexit negotiation process. The group is liaising with politicians and civil servants and appointing other industry experts to assist them.

The group would like to thank the Exiting the European Union Committee for the chance to take part in this inquiry.

Yours sincerely,

Ben Goodwin  
Policy Manager (Institution of Civil Engineers)



## **About the Brexit Infrastructure Group**

The Brexit Infrastructure Group was established by Sir John Armitt (the Institution of Civil Engineer's Immediate Past President) to ensure that Government negotiators are fully informed of the key issues that affect our ability to deliver infrastructure that supports a prosperous society and economy, both during and beyond the Brexit negotiations.

## **Leadership Board**

The Leadership Board has been established to oversee the delivery of the group's work across the five work strands detailed overleaf in this documents executive summary.

Chair – Sir John Armitt (Institution of Civil Engineers)

Nick Baveystock (Institution of Civil Engineers)

Amanda Clack (Royal Institution of Chartered Surveyors)

Geoff French (Aecom)

Richard Laudy (Pinsent Masons)

Paul Nash (Chartered Institute for Building)

Mike Putnam (Skanska)

Nick Roberts (Atkins)

Scott Steedman (British Standards Institute)

James Stewart (KPMG)

Andrew Wolstenholme (Construction Industry Council)

## Executive Summary

Following the decision to leave the European Union (EU), the Institution of Civil Engineers (ICE) convened experts across the infrastructure and construction sectors to identify the challenges and opportunities for the UK' infrastructure in a post-Brexit world. They set out five areas for focus which are covered in this paper.

- Investment, financing and funding
- Skills and labour
- Research funding and innovation
- Standards and Codes
- Procurement

The Brexit Infrastructure Group offers its expertise to the Exiting the European Union Committee and would welcome the opportunity to provide oral evidence to the committee.

## Investment, financing and funding

Brexit has created a complex period of uncertainty around UK infrastructure investment and delivery.

Government should:

- Reaffirm its commitment to the National Infrastructure Delivery Plan and ensure that a stable pipeline of infrastructure projects remains in place.
- Seek to ensure that the UK remains an influential member of the European Investment Bank (EIB).
- Key stat:
  - During 2011-15 the EIB invested €29bn<sup>1</sup> with infrastructure receiving the vast majority of this capital:

Energy €8.2bn

Transport and telecoms €7.1bn

Waste, sewerage and urban development € 7.3bn

<sup>1</sup> EIB (2016) [The EIB in the United Kingdom](#)

## Skills and labour

There is a skills shortage across the UK's construction industry and infrastructure sector.

Government should:

- Seek to retain access to high skilled, low skilled and unskilled labour that is required to deliver infrastructure and construction projects detailed in the National Infrastructure Pipeline.
- Key stat
  - In Q1 2016 around 9% (194,000) of the construction workforce in the UK were EU nationals<sup>2</sup>. Regionally the figures are more pronounced with migrants comprising 54% of construction workers in London<sup>3</sup>.

## Research funding and innovation

The Government's industrial strategy represents an opportunity to boost productivity in the UK's construction industry and infrastructure sector.

Industry should:

- Take a leadership role on innovation and digitalisation in order to deliver smarter infrastructure networks across the UK.
- Key stat
  - The UK has achieved an excellent return on investment in EU research related activities, with a net gain of €3.4bn from 2007 to 2013<sup>4</sup>.

## Codes and standards

Trading construction products and services between countries that subscribe to common standards and codes is cost and time efficient.

Government should:

- Seek to ensure that the UK remains an influential member of relevant European standards organisations such as CEN and CENELEC.

<sup>2</sup> Office of National Statistics (2016) [Labour Force Survey for January - March 2016](#)

<sup>3</sup> Rolfe and Hudson- Sharp (2016) - [The impact of free movement on the labour market: case studies of hospitality, food processing and construction](#)

<sup>4</sup> House of Lords (2016) [Science and Technology Committee - EU membership and UK science](#)

## Procurement

Common regulation governing procurement helps ensure competition, guard against fraud, underpin corporate governance requirements and provide value for money.

Government should:

- Establish a specialist taskforce to look in depth at the long-term risks and opportunities of retaining articles set out in the European Procurement Directive through UK law.

## Investment

This section covers the investment strand and has been produced by a specialist working group chaired by James Stewart at KPMG. The organisations involved in the working group are detailed in Appendix 1.

### Summary

Meeting the UK's social and economic infrastructure needs requires both public and private sector investment. The assets the sector delivers and maintains across the UK are needed to drive economic development and productivity growth in the post-Brexit environment. These same assets also provide stable sources of income for the pension funds of millions of UK citizens.

The market is currently functioning well. Liquidity is high and the UK is home to an internationally recognised centre of excellence for the design, delivery and operation of social and economic infrastructure. This includes the capacity and capabilities of the engineering, legal, financial and advisory communities. Historically low interest rates make this an attractive period for further investment.

Brexit does create risks that could damage this source of competitive advantage for the UK. Political and policy uncertainty could combine with impending changes to financial regulation and uncertainty around the future role of the European Investment Bank (EIB) to reduce our attractiveness as an investment location and fragment our world leading delivery capability.

The autumn statement is an immediate opportunity to signal intent. Longer term infrastructure should be at the heart of the government's new industrial strategy and this should include maintaining the health of the infrastructure supply chain.

### What do we need to achieve?

We need to secure

- Market confidence that the UK remains an attractive location for infrastructure investment over the long term.
- A stable pipeline of infrastructure projects linked to long-term political objectives during the run up to the Brexit negotiations and beyond.
- Continued high levels of liquidity for debt and equity linked to UK infrastructure.

To allow us to

- Maintain capacity and capability in the UK to support new build and enhancement of infrastructure assets and networks of all sizes.
- This can in turn
  - Support economic growth, productivity improvement and transition to low carbon economy

- Provide a source of high value exports

## How can we achieve these outcomes?

### Political commitment and a supportive policy environment

The UK's stable legal and regulatory environment has been a key contributor to its attractiveness to investors, notably in the regulated utility sector. Adherence to the EU's legislative and regulatory framework has also provided clear signals of intent in riskier areas e.g. clean energy.

The Government should make early and sustained commitments on its infrastructure development agenda. Building on the Hinkley and Heathrow decisions, this could include:

- Making investments in other sectors where there is an established need and smaller scale programmes could be delivered at a greater pace. This could include interventions in social housing, roads, universal provision of broadband and flood risk management.
- Committing to follow the advice of the National Infrastructure Commission and reaffirming the importance of the UK Guarantees Scheme and the National Infrastructure Delivery Plan.
- A commitment to avoiding unnecessary policy innovation. The diversion of government time and resources to the Brexit negotiations does create a risk that well-meaning, but inconsistent policy proposals are not properly scrutinised. Similarly in the utility sector, we should be aiming for a period of regulatory stability during what will inevitably be a period of high uncertainty.

Taken together this will provide the infrastructure pipeline with the stability and confidence to maintain investor confidence in the short-term.

### European Investment Bank

The EIB invests heavily in the UK economy. During 2011-15 it invested €29bn<sup>5</sup> with infrastructure receiving the vast majority of this capital:

- Energy €8.2bn
- Transport and telecoms €7.1bn
- Waste, sewerage and urban development € 7.3bn

It will be very difficult for the UK to create a similar development bank without taking further liabilities on to the national balance sheet.

The EIB has in effect been a source of cheap finance for UK projects. In addition, by acting as an *anchor investor* it has been able to bring in other sources of funds for projects that would have struggled to reach financial close. It has also played a vital role in periods such

<sup>5</sup> EIB (2016) [The EIB in the United Kingdom](#)

as the immediate aftermath of the 2008 financial crisis where private investment has largely dried up.

There are however legitimate concerns that in periods with a more benign financial climate the EIB has made investments in the UK that have crowded out commercial banks and institutional investors, with a negative impact on the long term capacity and capabilities of the sector. Action can include:

- Commit to continued UK membership of the EIB
- Develop a clear policy on optimising the roles of the EIB and private sources of finance such as the Commercial Banks and institutional investors within the domestic market.

#### Banking regulation

- An anticipation of developments around Basel III and Solvency II regulatory guidance would assist the UK to supplement the environment and should encourage increased capacity from the commercial bank and institutional market that, in turn, would address shortfalls arising from a lower EIB financing contribution to UK infrastructure.

#### **Linked Issues**

##### Impact of weakened Sterling

The decline in the value of sterling does create a risk of creeping unaffordability of some key projects. For example, the majority of offshore winds projects rely on turbines priced in Euros.

##### Labour and skills

There is an established pattern within the construction sector of labour force attrition created by high levels of cyclical demand. For example, during the last recession it is estimated that around 400,000<sup>6</sup> people left the industry and have not returned. In a worst case scenario, a decline in the infrastructure pipeline combined with uncertainty over the immigration status of significant a proportion of the labour force could damage the ability of the UK to deliver affordably large projects and programmes as they become available.

#### **Conclusion**

In conclusion, for the UK to retain an active and efficient market for private investment in Infrastructure, Government will need to act promptly to demonstrate their commitment to delivery of a strong pipeline of Infrastructure projects and the industry that helps to deliver them. They will also need to reconfirm their commitment to existing projects.

<sup>6</sup> CIOB (2015) [CIOB Perspectives: an analysis on migration in the construction sector](#)

## 2. Skills

This section covers the investment strand and has been produced by a specialist working group chaired by Amanda Clack at the Royal Institution of Chartered Surveyors. The organisations involved in the working group are detailed in Appendix 1.

### Summary

A number of factors have contributed to the skills shortage in the construction sector including cyclical construction industry workload, a risk-averse culture, its demographic makeup and its business model. This is not conducive to skills development.

Brexit presents an additional layer of complexity to this problem. In the long term, with effective partnership between government and industry we can address these skills challenges. However, in the short to medium term, it is critical that we have access to skills from overseas in order to deliver against the commitments for infrastructure, housebuilding and broader construction.

### UK construction sector skills profile - Impact of Brexit

Losses suffered in the recession, coupled with a lack of diversity and aging workforce work are holding back the sector. We have yet to recover fully the 400,000 construction sector jobs lost in the recession. Moreover, 430,000 are set to retire<sup>7</sup> between 2010 and 2020 as the industry faces an ageing workforce with around 30% being over 50<sup>8</sup>. The sector is at a 'skills cliff edge' with numbers of new entrants failing to offset those retiring. Upskilling the existing workforce to utilise new technologies, to increase productivity and retain expertise will help to soften the impact but this will not resolve the underlying issues.

The industry is finding it difficult to attract new talent, particularly women and minority groups. CITB<sup>9</sup> estimate that more than 230,000 new recruits will be needed between 2016 - 2020 to meet expected construction demand, that's not factoring losses due to retirement. The long timescales involved in training new construction workers means the short to medium term outlook for the UK in meeting its skills need is bleak.

Moreover, the skills profile varies by trade. For example, anecdotally, the majority of plumbers are EU national whilst a majority of electricians are UK national. This complicates the way in which skills issues should be addressed. General industry figures do not accurately capture the extent of the skills shortage in certain trades. A project with shortfall in just one key skill area will be delayed as a result.

<sup>7</sup> UK Commission for Employment and Skills (2012): [Sector Skills Insights - Construction](#)

<sup>8</sup> DWP (2015) [DWP: Statistics on workers by sector](#)

<sup>9</sup> CITB (2016) [Industry Insights - Construction Skills Network Forecasts 2016 -2020](#)



Brexit exacerbates the issue leading to increased uncertainty not only to existing EU migrants, but also the potential to attract future talent. The ONS figures<sup>10</sup> suggests that in Q1 2016 around 9% (194,000) of the construction workforce in the UK were EU nationals. Regionally the figures are more pronounced with migrants comprising 54% of construction workers in London<sup>11</sup>. This will mean that the impact of Brexit will be felt unevenly between urban and rural communities.

The RICS' Construction market survey data show that skills shortages remained one of the main factors' surveyors felt was impeding growth. The UK's capacity to deliver on housing and major infrastructure projects will be reduced by at least 7% (more in London) if the skills issue is not addressed. This comes at a time where the government aims to double housing delivery and embark on a series of large scale infrastructure projects. Separately, there are indications that construction firms have had to delay starts or turn down work due to a shortage of staff.

### **Government policy**

The Government's ambition for 3 million new apprenticeships in this Parliament, and the introduction of degree equivalent apprenticeships, are laudable. However, although attracting the 865,000 16-24 year olds who are not in education, training or employment<sup>12</sup> can go some way to reaching the target, government and industry must find a way to convince a significant proportion of school leavers to opt for apprenticeships over a degree.

The introduction of the apprenticeship levy also presents a challenge to the sector. Apprenticeships on offer do not meet the needs of industry as a whole as skills are often too specific to firms providing the training. In addition, the costs of training some construction workers are more than the proposed allocated funding cap under the new levy arrangements. For example a steeplejack apprenticeship was allocated £6,000 but industry estimates that it actually costs £20,000<sup>13</sup>. This has led to concerns that our industry might lose out if funds raised through the levy aren't ring fenced. Given the uncertainty and tight timescales for implementation the government should delay the introduction of the levy until 2018 to develop programmes to deliver the skills we need.

The Government also intends to provide a long term forward view of projects and programmes through the National Infrastructure Delivery Plan, the National Infrastructure Commission and in the National Infrastructure Plan for Skills. Delivery of these projects, some identified as nationally significant, will be severely constrained due to a lack of skills.

### **Solutions and recommendations**

<sup>10</sup> Office of National Statistics (2016) [Labour Force Survey for January - March 2016](#)

<sup>11</sup> Rolfe and Hudson- Sharp (2016) - [The impact of free movement on the labour market: case studies of hospitality, food processing and construction](#)

<sup>12</sup> House of commons library (2016) [NEET: Young People Not in Education, Employment or Training](#)

<sup>13</sup> Build UK (2015) [Build UK Response to Apprenticeship Funding Consultation](#)

- **We must secure the rights of existing EU workforce in the UK construction sector.** This must be done in conjunction with development of a workable skills based migration system that provides access to skills. One of the easiest ways in which this can be done is by offering non-UK construction students opportunities to remain and work in the sector for a set period of time following the completion of studies.
- **A long term programme is needed to evolve skills and practices in line with cultural and technological change to attract a diverse workforce, reduce the intensiveness of labour and change industry skills needs.** This involves developing means to upskill an ageing workforce to managerial/consultancy level (or acting in a more formal mentoring capacity) to retain valuable skills and expertise, understanding and supporting (or accelerating) investment in emergence of new technologies and their impact on skill (e.g. potential for cross industry recruitment from manufacturing, IT and design) and redesigning apprenticeship schemes to deliver multiple and transferable skills in response to industry demands.
- **A new pathway for entry into the sector at a post graduate level for established professionals wanting to transition into the construction sector. With appropriate levels of higher apprenticeship funding.**

Successfully resolving our skills issues would make the UK a world leader in the field of technical construction expertise, which could significantly strengthen our position as an exporter of skills and services.

### 3. Research and Innovation

This section covers the investment strand and has been produced by a specialist working group chaired by Mike Putnam at Skanska. The organisations involved in the working group are detailed in Appendix 1.

#### Summary

- Brexit negotiations: identifying the most significant threats and opportunities to the health of the built environment innovation system arising from the UK's Brexit negotiations.
- Industrial strategy: identifying opportunities to develop the built environment innovation system to support the UK's post-EU industrial strategy.

#### UK construction's challenges

The construction industry is almost unique in not having seen productivity gains in recent decades, even though the quality of completed construction projects has steadily improved. We know also that the size of the UK construction market is set to grow by 35% over the coming decade. If we factor in the existing skills gap, with KPMG identifying a training deficit of 51%<sup>14</sup>, it's clear that the UK will not be able to produce the required output at the current rates of productivity.

#### Industrial strategy for construction

In 2013 the UK Government and the industry published their 2025 strategy for construction<sup>15</sup>, setting targets of 33% lower costs, 50% faster delivery, 50% carbon reduction and 50% increase in exports. The benefits to the economy and to society of achieving these targets are well understood. But they cannot be achieved without innovation.

#### Barriers to innovation

Currently, the construction industry is not sufficiently well structured to deliver innovation without government support, due to fragmentation, uneven workflow and low profit margins. Funding for collaborative research overcomes these barriers.

#### Recent progress

Recent technological advances have paved the way for a leap forward in construction productivity. The support received to date from Innovate UK, R&D tax credits and EU programmes such as Horizon 2020, has already helped produce some excellent results.

<sup>14</sup> KPMG (2014) [Skills to build](#)

<sup>15</sup> BIS (2013) [Construction 2025: strategy](#)

Improvements will come from advances in automation, digitisation, supply chain logistics, process automation and smart infrastructure. UK firms have been involved in much successful collaborative research<sup>16</sup>. Government support has played an important part in bringing this about. Continuing support for construction-related research is essential to help achieve the 2025 targets, but there is also a need to develop an innovation culture in the industry.

### **EU grant funding**

Evidence shows that the UK has achieved an excellent return on investment in EU research related activities, with a net gain of €3.4bn from 2007 to 2013<sup>17</sup>. Construction-specific research is difficult to separate out, as there is often crossover with other industry sectors, but we also expect the transfer of knowledge into construction from other sectors to become increasingly important. Therefore the Chancellor's commitment to guarantee EU-funded project work, including research and innovation, up to 2020, regardless of whether we have departed the EU by then, is welcome. It's a positive sign. But, as an industry, we must ensure that innovation delivers the productivity gains and return on investment that will justify government support beyond the end of the decade.

### **Risks to academia**

Perhaps the greatest risk of Brexit to construction research comes from threats to academia. Applications are down and given the uncertainty, EU countries and organisations are more wary of involving the UK in future projects. There are also major concerns around the free movement of people. Universities are already seeing applications from the EU dropping quite markedly. Construction research benefits from the impressive capabilities of our universities. A decline here would have significant consequences.

### **Building on UK strengths**

In addition to continued involvement in EU research, we should take the opportunity to build on the strong position of UK construction. The UK's balance of trade in contracting and consultancy is already positive. Our leading position in digitalisation and smart infrastructure represents massive opportunities, not only to the UK construction industry and the delivery of projects, but also as a highly exportable area of expertise. This is already recognised in the Construction 2025 strategy and within the current focus of the Construction Leadership Council. But there is much to do and a serious need for the industry to truly collaborate to make it happen with scale.

### **Leadership opportunity**

<sup>16</sup> Such as flexible factories, tagging and tracking of components, condition-based maintenance, gamification of construction design, and more

<sup>17</sup> House of Lords (2016) [Science and Technology Committee - EU membership and UK science](#)

We have a tremendous opportunity to transform our industry in terms of productivity by encompassing digitalisation and innovation. Leadership will be crucial to ensure that clients and contractors, together with universities and consultants, work effectively together to make real progress. Continuing government support for collaborative research, in the UK and across Europe will provide that leadership.

## 4. Codes and standards

This section covers the investment strand and has been produced by a specialist working group chaired by Scott Steedman at the British Standards Institute. The organisations involved in the working group are detailed in Appendix 1.

### Summary

This paper addresses potential impacts of Brexit on the use of industry consensus technical codes and standards. It highlights key issues for Brexit negotiations and future opportunities. To bring the maximum benefit to the UK economy, BSI believes its full membership of the European standards organisations should be maintained post-Brexit.

### Background

#### What are standards?

Standards are documents that set out specifications, codes and guidance for industry. They are distinct from regulation, because they are not issued by government and are not compulsory.<sup>18</sup> They are developed consensually, through processes managed by independent standards organizations, in the UK's case the British Standards Institution (BSI). The built environment sector has perhaps the longest history of any industry when it comes to the use of formal codes and standards.

#### Europe and the single standard model

Currently, the UK has full membership of the European standards organizations, CEN and CENELEC<sup>19</sup> through BSI. This gives UK experts considerable influence on the content of European standards. European standards have to be implemented (adopted) identically in 33 countries<sup>20</sup> by their national standards bodies. Any conflicting national standards must then be withdrawn, leaving a single standard across Europe for each aspect of a product or service where a standard is needed. This is known as the 'single standard model'. European standards are widely used: for example, the suite of Structural Eurocodes is currently used by some 500,000 engineers across Europe.

Membership of CEN and CENELEC is not contingent on being a member of the EU, but it is dependent on meeting those organizations' rules. Leaving the single standard model would lead to a loss of competitiveness for the UK construction sector and increased costs. UK industry would still have to use European standards when exporting to the EU, while it

<sup>18</sup> It should be noted that standards can often be used as a means of demonstrating conformity with regulation, and approximately 20% of current European standards enable compliance in this way.

<sup>19</sup> CENELEC is the European standards organization in the electrotechnical area, CEN for all other sectors save telecommunications. Decisions to adopt standards are made by weighted vote, similar to the EU Treaty.

<sup>20</sup> EU 28, Iceland, Norway and Switzerland in EFTA, Turkey and the Former Yugoslav Republic of Macedonia.

would lose influence at regional level on the development and maintenance of those standards.

### **Potential impacts on UK infrastructure and supply chain of Brexit in terms of codes and standards**

If the UK were no longer able to continue as a full member of CEN and CENELEC, negative effects would include:

- UK would lose its decision-making power and influence over the content of European standards. This influence currently includes full governance rights, 70 technical body secretariats, and 566 technical committee chairs and working group convenors in CEN and CENELEC.
- UK industry may be less commercially competitive. Industry would face either using two standards regimes (UK and European) or using European standards alone without being able to influence their content to any significant degree. Trading construction products between the UK and Europe will be made more difficult and costly if different standards apply in the respective jurisdictions.
- The possibility of fragmentation of the standards (and market) environment even within the UK, if any of the member countries of the Union retain European standards while others do not (note Scotland's express desire to remain within the EU); a particular issue for construction products.
- Confusion about the status of existing regulations (or long-term commercial contracts) incorporating European standards.
- The reduced ability of UK academics to deliver research impact, as standards enable research to be translated into industry practice and accelerate innovation.

### **Issues regarding codes and standards for Brexit negotiations**

Although compliance is voluntary for the vast majority of European standards used by the sector, there are a few, such as the Construction Products Regulation (CPR), where use of the harmonized standards is mandatory<sup>21</sup>. Further, a large minority of European standards (about 4500 'harmonized' standards, just under 20% of the total) play a vital role to support legislation by providing a preferred method to deliver legal compliance.

The Brexit negotiations should consider the present and future role of technical codes and standards as follows:

<sup>21</sup> CE marking is frequently confused with standards. The CE marking is in fact a declaration by the manufacturer that the product complies with relevant legal requirements (the CE marking is not a quality mark). The question of CE marking is therefore a regulatory matter, not a standards issue.

- With regard to post-Brexit national technical regulation: there could be a challenge to BSI's full membership of CEN and CENELEC if the UK deviated significantly from the current regulatory model (known as the New Approach or New Legislative Framework). That is not to say that the specific regulatory requirements have to remain the same post-Brexit.
- There would be some restrictions on UK negotiations for free trade agreements, in order to maintain the single standard model. There is a risk that trade negotiations with third countries could concede the 'mutual recognition' of that country's national standards as a means of compliance with UK practice. The recognition of other standards in addition to the European standards would fundamentally undermine the single standard model and could lead to BSI's full membership of CEN and CENELEC being challenged.

### **Issues regarding codes and standards for the longer term and UK industrial strategy**

There are areas where the UK's global and European leadership position and influence in the development and use of voluntary industry codes and standards may assist in bringing opportunities for the UK post-Brexit. A Cebr study (2015) found substantial economic benefits for industry through the use of standards, particularly in exports, productivity, innovation and GDP growth. We see major opportunities for the UK to exploit its global reputation for shaping business and industry standards through:

- Supporting industrial strategy in the UK: simplified national regulation relying on standards to provide technical specifications can enable the development of innovative products within a flexible regulatory environment;
- Standards can also accelerate the transfer of innovations from research to market; BSI and Innovate UK are already working with other innovation infrastructure partners on the role of standards in new emerging technologies and particularly in the future digital economy;
- Supporting trade with European partners: continued full membership of CEN and CENELEC would maintain UK influence over the content of European standards, without necessarily being tied to European regulation;
- Supporting UK's international ambitions through embedding UK commitment to international standards in free trade agreements: international standards from ISO and IEC simplify international trade. Using UK's continued influence both in Europe and internationally, the UK could seek global collaboration leading to a greater alignment between international standards.



## 5. Procurement

This section covers the investment strand and has been produced by a specialist working group chaired by Paul Nash at The Chartered Institute for Building. The organisations involved in the working group are detailed in Appendix 1.

### Summary

The EU procurement directive covers all public sector procurement in member states. It defines processes, procedures and standards and is intended to underpin fairness so that businesses based in the EU have the opportunity to obtain public sector contracts in any EU country. It has been introduced formally into UK law through parliamentary legislation and through the Scottish parliament, so Brexit would only change procurement law if Westminster or the Scottish parliament chose to do so.

Certainly most large businesses need clear and sensible boundaries for procurement procedures and processes. This helps ensure competition, guard against fraud, underpin corporate governance requirements, provide value for money and level the field in terms of the application of law on the ground.

### Possible impacts of Brexit

Remaining in the single market would mean the current procurement processes and conditions remain. A Norwegian-style model of remaining in the EEA is conditional upon complying with much of EU legislation, including the procurement directives.

If the UK decides not to continue its membership of the single market, this will likely raise as many questions as it answers. These include:

- Would the UK restrict its public procurement to companies based in the UK and risk reducing competition and increasing the prices payable by public authorities for their goods and services?
- Will this disenfranchise UK businesses from bidding for overseas work?
- The UK may well have to negotiate a series of bilateral agreements with current EU Members States and, though the EU Procurement Directive would not be mandatory, it is likely that something similar would be put in place. Currently in place is the Government Procurement Agreement (GPA), a product of the World Trade Organisation involving 46 of the largest global economies and to which the UK is currently a party by virtue of its EU membership. This opens up procurement markets to signatories of the GPA but, not surprisingly, entails compliance with rules and obligations which are essentially the same as those that apply under current EU procurement directives.

Although the exact visioning of public procurement and its future in the UK is uncertain, it is inevitable that there will continue to be a set of guidelines and rules which govern how

public contracts are awarded. If the UK wishes to continue accessing foreign procurement markets and allowing foreign businesses to compete in domestic markets, it is likely that those procurement rules will be identical to, or at least very similar to, those presently in place.

The UK has a construction market with few, if any, barriers to entry for foreign companies seeking to operate in the UK construction sector. UK policy has been for the market to decide on competences, rather than the regulatory system. This is in contrast to the majority of (in fact almost all) EU countries where contractor and professional service registration is undertaken at a national level. Even the smaller Balkan and Baltic states have rigorous registration requirements for contractors and specialist contractors, as well as professionals. Whilst Brexit does not necessarily change this situation, there are implications in the long term that need consideration.

### **What do we need to achieve?**

From outside the EU looking in – rather than simply looking out – there needs to be a focus about Brexit from the perspective of non-EU countries, as well as from EU organisations looking at the UK market. The emphasis has so far been from the UK looking out, whereas there are serious implications from the opposite perspective. For countries who have invested and are investing in the UK, this no longer comes with the certainty that they will automatically have access to other European markets in the future; overseas countries are looking at how Brexit will impact them in the procurement of materials and services. There is a risk that political and policy uncertainty could weaken the UK's prospects of expanding its positive balance in construction-related trade.

We need to define the scope of the construction sector using the UN International Standard Industrial Classification (ISIC) codes. As we know, the industry is not simply comprised of building or civil engineering contractors. We need to consider the implications for the Knowledge Intensive Professional Services (KIPS), for the material producers and the ancillary services, such as legal, IT, insurance etc. The implications across the sector are huge because of compliance, registration and the need to meet standards. Within the EU regulatory system, it is easier to receive approvals; outside the EU it may be more challenging and time consuming. For procurement, the codes and standards are very important and there will need to be a process for negotiation on these.

The biggest challenge with procurement is not simply the tendering rules for procuring and advertising bids. Full access implies continued compliance and application of EU legislation. If the UK wishes to bid on European public sector projects, it would have to abide by the EU rules, registration, and the legislation. In reality, however, UK construction firms have not bid on many EU projects; KIPS are likely to face greater consequences and the impact on this sector needs consideration.

The link between procurement, codes and standards is also of crucial importance, particularly at the initial bidding stage. EU codes are disparate, with many countries choosing not to fully adopt European standards. Despite this, it is unlikely that the UK will continue to have a place at the table for the harmonisation of standards across Europe; ultimately this will affect UK procurement when selling goods overseas.

Overall, the procurement rules are crucial, as many bids are sought on the basis of EU compliance. In terms of next steps, we recommend that a group be formally established to discuss more fully the possible implications for construction.

## Appendix 1: working group member organisations

### **Investment, financing and funding**

Chair - James Stewart (KPMG)	Institution of Civil Engineers
Aberdeen Asset Management	M&G
Balfour Beatty	MUFG
CMS Cameron McKenna	Pension Insurance Corporation
Costain	Santander
IFM Investors	SMBC

### **Skills and labour**

Chair – Amanda Clack (Royal Institution of Chartered Surveyors)	Gardiner & Theobald
Arcadis	HS2
Build UK	Mace
Costain	

### **Research funding and innovation**

Chair – Mike Putnam (Skanska)	Innovate UK
Arup	Institution of Civil Engineers
BRE	Mott MacDonald
CIRIA	Royal Academy of Engineering
Imperial College London	Tarmac

## Standards and Codes

Chair – Scott Steedman (British Standards Institute)

Construction Products

BRE

Imperial College London

Build UK

Royal Institution of Chartered Surveyors

CIBSE

WSP | Parsons Brinckerhoff

## Procurement

Chair - Paul Nash (Chartered Institute for Building)

Nabarro

Construction Industry Council

University of Reading

Costain