# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>SUMMARY OF RECOMMENDATIONS</td>
<td>2</td>
</tr>
<tr>
<td>CHAPTER 1: THE STATE OF UK PROCUREMENT</td>
<td>4</td>
</tr>
<tr>
<td>CHAPTER 2: THE NATIONAL INFRASTRUCTURE AND CONSTRUCTION PIPELINE</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER 3: WHAT ARE THE PROBLEMS WITH CURRENT PROCUREMENT BEHAVIOUR?</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER 4: INDUSTRY AND GOVERNMENT ACTION</td>
<td>18</td>
</tr>
<tr>
<td>CHAPTER 5: HOW TO PROMOTE A MORE SUSTAINABLE INDUSTRY</td>
<td>20</td>
</tr>
<tr>
<td>REFERENCE LIST</td>
<td>35</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

The collapse of Carillion in January 2018 shone a light on the unsustainable structure and habits of the UK infrastructure industry.

The industry has now reached a crucial juncture in which greater longevity must be inbuilt into infrastructure strategies to create a more predictable pipeline of projects. The Infrastructure and Project Authority’s National Infrastructure and Construction Pipeline does not provide the certainty contractors need to invest to deliver infrastructure projects in a way that is sustainable. This needs to change. Headroom in contractor margins must be created to allow for investment in digital and skills training to address the deficit being experienced across sectors and professions, and in off-site construction facilities.

Supply chains do not have sufficient capacity and are overly reliant on subcontractors to meet unpredictable demands on labour. The maturity of the supply chain is also now limited as the number of companies undertaking self-delivery has declined significantly in recent years. This has also put a further strain on the stability of SMEs and technical contractors. Major projects are continually challenged on spending which leads to procurement on a value for money basis being defined by lowest cost. This removes the potential for the private sector to deliver added value for the project and the industry as a whole.

Most projects are now procured either through traditional procurement competitions or collaborative long-term frameworks. We think the value of frameworks has been underappreciated for their ability to develop collaborative relationships between client and contractor to deliver better outcomes and value for money.

This report makes a series of recommendations to create a more certain environment for the UK infrastructure industry, fostering sustainable behaviours and enabling long-term investment. Without immediate action, instances like Carillion will become more common and the UK will be unable to deliver the infrastructure that is crucial to serving future generations.

Graham Mather CBE David Ferroussat
President, Chair, Procurement Working Group, The Infrastructure Forum The Infrastructure Forum Development Procurement Director, Heathrow Airport Ltd
SUMMARY OF RECOMMENDATIONS

**Pledged Projects List**
HM Treasury should issue a Pledged Project List confined to those projects that have made a successful business case and to which the responsible government department or public body is committed. This List should be clearly differentiated from the publication of the IPA’s National Infrastructure and Construction Pipeline. The Pledged Project List should:

- Set out the desired outcomes for each contract or project
- Include an expected delivery timeline
- Introduce a lower threshold, of £30 million, for projects to be included, increasing visibility for smaller contractors and those at the local level
- Be user friendly with easily extractable information linked to government department websites
- Be updated regularly.

**‘Contract Footprint’ System For All Government Infrastructure Projects**
The IPA should migrate those projects and programmes already under construction from the Pledged Project List to a Contract Footprint Framework capturing the whole industry. This framework would offer detailed information on the status of a specific project as well as a comprehensive overview of supply chain exposure, making it easier to identify possible cost overruns and manage delivery.

Projects should be listed on the IPA Contract Footprint Framework as soon as the procurement process begins and gradually migrated from the Pledged Project List until all contracts have been awarded.

**Economically and Socially Sustainable Definition Of ‘Value for Money’**
HM Treasury’s Green Book defines ‘value for money’ as the delivery of social value in terms of costs, benefits and risks. Social value is “how the government can improve social welfare or wellbeing” through the investment being proposed.

Defining ‘value for money’ in this way does allow for the consideration of a wide range of factors when procuring a project; however, in practice it becomes very difficult to assess more subjective facets of social value and, in some cases, procurers rely predominantly on cost to assess tenders. Procurement on a lowest cost basis will drive contractors’ margins lower, undermining financial stability, growth and investment in innovation. The Government should review its definition to ensure clients take into consideration the wide range of factors that contribute to delivering social value.
Apply Two-Stage Frameworks More Widely

When a client wants to undertake procurement of similar services on a recurrent basis, a two-stage framework should be used where suitable to reduce the costs of bidding for contractors. The pre-qualification stage enables a client to ascertain those contractors with which it wishes to engage based on a broad range of factors. Those contractors who are unable to provide the scope and capability required will not get onto the framework. The second stage of procurement will focus on collaboratively developing a more detailed value for money offer which is based upon designing and engineering the best solution to deliver the desired outcomes within the client’s budget.

Use Unsolicited Proposals Across Government Departments

All Government Departments and authorities should introduce a system to incentivise and handle unsolicited proposals for privately financed projects to increase the number of projects in the pipeline, stabilise investment in infrastructure and promote innovation.

The guidance on market-led proposals issued by the Department for Transport should be adapted and rolled out to reflect the model used by the South African Government – the cost of development for the proponent is calculated independently and reimbursed by the contractor awarded the contract.

Cabinet Office Procurement Team

The Government should develop an expert procurement team in the Cabinet Office to help departments with project procurement, authorise unsolicited proposals, and oversee specific projects to add continuity through the delivery process, bridging the procurement skills gap across government. This team would also be best placed to assist with better risk decision making and would be more skilled in deciding what risks should be held by the Government, rather than placing the majority of risk with the private sector. This team should operate flexibly across Government Departments and key projects.
CHAPTER 1: THE STATE OF UK PROCUREMENT

Procurement is an integral part of the delivery of any infrastructure project and can significantly contribute to a project’s success or failure. Procurement should be defined as the front-end delivery model used to acquire benefits for a project.

Defining Procurement

Procurement is frequently thought to be the buying of goods and services required to complete a programme of works, be that to maintain an existing asset or service, or a new project. The role of procurers therefore comes to an end when this assessment and buying process is over. This is a misconception.

Procurement has a much greater role in the life of an asset or service and as such should instead be considered the front-end delivery model to acquire benefits for a project.

Defining procurement in this way will afford a more macro perspective of value for projects.

This Working Group has encountered two categories of projects in its work: business-as-usual projects and mega-projects. The former include routine and recurrent works, such as the maintenance of existing assets and non-strategic capital projects, which the industry tends to be well versed in delivering; however, for reasons that the paper will go on to outline, this does not automatically mean that such projects will be procured well.

The latter – mega-projects – are those which are of very large scale, often with national implications and usually including an innovative element that the UK industry may not have previously delivered. Examples of this type of project include Crossrail, HS2, the London 2012 Olympic Park, and the Thames Tideway Tunnel. Being of such national significance, these projects tend to draw attention and support from a wide range of stakeholders, thus are often where investment and skills development is focussed.

Some of the issues highlighted and proposed remedies set out here will apply to all types of infrastructure projects, whilst others may be applicable to either type respectively.

Types Of Procurement

Broadly, there are two ways of procuring infrastructure – traditional procurement competitions and frameworks – within which various models have been developed.

Traditional Procurement Competitions

Traditional procurement competitions are the most popular method of tendering contracts for UK infrastructure projects. Typically, a client will develop detailed plans for a project and outline the scope of works which are then turned into contracts to be tendered. Contractors are invited to submit bids to deliver the work outlined by the contract.

The client will then award the contract following an assessment of all bids submitted in accordance with the EU legislation governing procurement – Official Journal of the European Union (OJEU) – if applicable.

OJEU includes a number of directives that govern the procurement of goods and services across the EU member states which serve to promote five key principles: non-discrimination; equal
treatment; proportionality; transparency and mutual recognition. The legislation aims to encourage competition for tenders across the member states and therefore offer value for money for the procuring client. This is achieved predominantly through the publication of tenders on a central EU database which can be accessed by contractors from all member states. The directives are subject to thresholds in application which determine whether a procurement is subject to the rules outlined, for example, all Central Government Works contracts valued over £4,551,413 must adhere to OJEU rules at present.

It should be noted that the UK may not have to abide by OJEU rules once it leaves the EU, but the extent to which this will be true remains uncertain. OJEU rules are very complex so Brexit may offer the opportunity to re-examine these to encourage efficient procurement without sacrificing the five principles outlined.

**Procurement Frameworks**

Procurement frameworks, on the other hand, form an agreement with one or multiple providers in which orders can be placed without undertaking a full competitive tender process to facilitate more efficient procurement processes and offer support of delivery mechanisms. Frameworks operate most effectively when a single buyer needs to execute large volume buying for repeatable type works. The utility of frameworks applies generally to business-as-usual type projects or major projects with a broad scope.

We are very grateful to Tussell, data analyst of public procurement contracts, who have provided data on the use of frameworks to procure UK infrastructure. This data has provided some striking insights.

Frameworks have become the preferred mechanism for procuring contracts of greatest value and should therefore be examined as an integral part of the current procurement system.

In April 2018, 15% of all contracts issued were procured through frameworks, but these amounted to 81% of the total value of all contracts procured.1

In the first quarter of 2018, 6825 tenders were published by UK public sector buyers, of which just 16% of the contracts were for frameworks; however, the value of these frameworks accounted for 60% of the estimated total tender value in this period of £105 billion.2

3,500 contractors presently participate in 1,000 frameworks across the UK.3 455 infrastructure frameworks in the UK worth £8 billion are due to expire in the next 12 months and 857 frameworks worth £22 billion will expire in the next 24 months.4

Figure 1 shows the composition of UK infrastructure frameworks over time.5
The vast number of contracts due to expire within the next 2 years poses a good time therefore to evaluate the utility of procurement frameworks and their role in the sustainability of the market.

Frameworks, when operating correctly, do enable the market to enact procurement procedures quickly and efficiently. Frameworks can become especially valuable in emergency situations, whereby an existing list of suppliers means that contract terms can be easily agreed and work can start as soon as possible.

The rebuild of the Dawlish railway line following two storms that caused significant damage in February 2014 was one such example of the success of procurement frameworks to deliver a project very efficiently.

Network Rail already had a framework of project delivery partners in place which were called upon immediately to assess the damage and begin work on the site.

A simple contract strategy was imposed using existing templates, fostering confidence and commitment in contractors and suppliers to the project. As a result, the railway line was reopened on 4 April 2014 and all initial works were completed by 27 April 2014.

Under the circumstances, those working on the project thought that value for money had been achieved. This was largely considered to be due to the commercial presence on site and the speed at which frameworks enabled the project to be completed.

The Working Group encountered a number of very different yet very effective frameworks for delivery in its investigations; however, the effectiveness of a framework to deliver its advertised benefits depends on its implementation by the user. Frameworks also do not guarantee work for contractors but do facilitate a strong client-contractor relationship.

Figure 1: The Composition of UK Infrastructure Procurement Frameworks from 2015
[Source: Tussell]
CHAPTER 2:
THE NATIONAL INFRASTRUCTURE AND CONSTRUCTION PIPELINE

The Infrastructure and Projects Authority’s Pipeline includes all UK infrastructure projects and programmes valued over £50m, which in 2018 amounted to the large total of £413bn. But only 8% – £30.24bn – of these are sufficiently certain for contractors to prepare to deliver them. 46% of projects listed in the Pipeline are already under construction.

The Infrastructure and Projects Authority (IPA) publishes a National Infrastructure and Construction Pipeline each year detailing all publicly announced infrastructure projects and programmes in the UK. It includes the value of the project or programme, the stage of a project’s development, the number of projects in a programme of work and the cost per financial year.

The publication of the Pipeline demonstrates the Government’s understanding of the need for infrastructure investment to be stable and predictable over time. This has been beneficial for the industry.

The IPA’s 2018 Pipeline lists 684 current work streams which includes projects and programmes. Projects are considered individual endeavours with a particular aim, whereas programmes will often be constituted of many projects with a broader, collective aim. Figure 2 shows the breakdown of items.

Only 40% of the entries in the IPA’s pipeline are specified as individual projects. It is necessary for contractors to have project-level detail to understand and prepare to compete for the type of tenders likely to be issued. Without this, contractors cannot use the Pipeline as a tool to plan for the delivery requirements of future infrastructure projects.

60% of items in the Pipeline are programmes of work which lack the detail required by contractors to gear up for procurement.

Only 14% of the 406 programmes are composed of 1 to 5 projects, affording some visibility as to the scope of each project in the programme. 234 programmes are identified as including multiple projects, in which the number of projects included in the programme is not specified. This demonstrates the lack of clarity or certainty on the nature of upcoming work that the industry is expected to deliver. Figure 3 breaks down the number of projects included in each listed programme in the pipeline.

Figure 2: Breakdown of items listed on IPA National Infrastructure and Construction Pipeline 2018

6 HM Treasury and Infrastructure and Projects Authority, National Infrastructure and Construction Pipeline 2018.
The amalgamation of individual projects into programmes is helpful from a Treasury perspective to identify the purpose of projects and offer an overall view of the UK’s infrastructure spend. Many programmes are also listed in this way because further detail on the individual projects is not yet known. This lack of clarity compounds the uncertainty of project delivery specifics for contractors and stakeholders.

The pipeline covers the current spending review period which ends in 2021. It also includes a rolling 10 year spending forecast, first introduced to the 2017 edition of the Pipeline, to offer long-term visibility of infrastructure projects and spending. Previously, the value of the Pipeline had declined over the fixed spending review period as projects and programmes were completed and the period of visibility shortened.

The delivery status of individual projects listed in the Pipeline can range from those already under consideration, to those which have received consent approval, to those only in the initial scoping phase. Publication of projects and programmes in the IPA’s Pipeline offers some certainty they will be delivered because this intention is recognised by their announcement to the public.

Those interviewed in the process of consulting on this paper, however, frequently cited that contractors needed a much higher degree of certainty that a project would go ahead before they viewed it as economically viable to invest.

Figure 4 illustrates the distribution of projects in different phases of planning and procurement. 128 of the 278 projects included in the Pipeline are already under construction and do not, therefore, provide a forward look of what work contractors should prepare to deliver.

Fewer than 8% of entries in the Pipeline serve as an insight for contractors as to the projects that, with reasonable certainty, will be procured for delivery.

Scoping applies to projects which are being considered by the proposer but do not yet have a successful business case or timeline for delivery; therefore, they do not assist contractors, outsourcers or investors in planning resource allocation. Likewise, projects categorised as In Progress have been announced in the budget but still lack specificity on where the funds will be assigned.

It is well recognised that absolute certainty cannot be guaranteed for the procurement of individual projects due to political changes, difficulties in the planning process and departmentalism.

Figure 3: Number of projects in programmes in IPA National Infrastructure and Construction Pipeline 2018

<8%

Fewer than 8% of entries in the Pipeline serve as an insight for contractors as to the projects that, with reasonable certainty, will be procured for delivery.
(the siloed nature in which Government Departments tend to approach projects). All these factors impact on whether a project included in the Pipeline will be successfully delivered, but in order for the Pipeline to become a useful tool to promote a sustainable industry, it must strive for the utmost visibility as to these risks and the likelihood of procurement.

The IPA’s Pipeline is valued at over £413bn for the current spending review period, yet Figure 5 shows that only 21 projects in the Pipeline worth £30.24bn have had consents approved, and are therefore sufficiently certain that contractors can invest to prepare to deliver them.

This analysis demonstrates that the scale and status of UK infrastructure investment is inaccurately captured by the IPA’s National Infrastructure and Construction Pipeline. It neither provides an idea of when projects might be procured or their expected delivery date so that the industry can plan to deliver these projects, nor does it make plain the risk exposure of the public sector to contractors across those projects under construction.

---

7 HM Treasury and Infrastructure and Projects Authority, National Infrastructure and Construction Pipeline 2018.
8 Ibid.
CHAPTER 3: WHAT ARE THE PROBLEMS WITH CURRENT PROCUREMENT BEHAVIOUR?

Three key behaviours are unsustainable: high risk transfer to the private sector; contracts awarded based on lowest cost; and inadequate investment in skills. These behaviours are being driven by the lack of certainty and transparency in the industry.

The Infrastructure Forum’s Procurement Working Group have determined the following as current behavioural traits of the industry that need to be addressed.

**High Risk Transfer To The Private Sector**

The structure of private sector investment in UK infrastructure has long been driven by HM Treasury’s desire to deliver this investment off-balance sheet, because it cannot pay for very large projects upfront. In order to achieve such balance sheet treatment a significant percentage of the risk posed by a project must be transferred to the private sector; however, it has now become apparent that a very high degree of risk transfer is not necessarily appropriate in all cases.

For almost all large projects, Government tends to bear the ultimate risk when things go wrong, irrespective of the risk transfer contractually agreed. A more
considered approach to risk transfer should be taken to realise the best outcome/value for money for the public in the long-term; any transfer of risk must be appropriate and within the control of the private sector. This may mean that in some cases, where the construction risk is very high, the Government retains more risk and accepts that the project will be on balance sheet.

When off balance sheet treatment is the dominant driver for private sector delivery, Tier 1 contractors in many cases are the only ones with large enough balance sheets to take on this risk. One CEO noted that whilst there was a desire to include more SMEs on Government contracts, contracts structured in this way would require a Tier 1 contractor to provide a credit wrap due to the scale of the risk transfer.

Paul Davies’ recent paper for The Infrastructure Forum – Private Finance: Press Reset – outlines ways in which companies investing in the delivery of public infrastructure can restore trust in their operations. These proposals will require increased certainty in the projects expected to be delivered in order to justify the industry undertaking the reforms set out.

If Government is to truly facilitate greater market diversity, then it must review the levels of risk transfer appropriate to engage SME contractors. It should be noted that a larger client team would be required to manage increased numbers of direct contracts with SMEs, but that this would in turn provide greater visibility of risk exposure.

Procurers should consider carefully where it is appropriate to develop a direct relationship with an SME. In some cases, it may be more appropriate for an SME to maintain a relationship with a Tier 1 contractor rather than directly with the client. Improving contractors’ use of local supply chains would diversify the risk exposure of the industry and spread economic growth, serving as a better mechanism to introduce more SMEs into the supply chain.

When assuming this responsibility, main contractors should not be allowed to squeeze their supply chain if they are themselves suffering.

The industry should take care to ensure that clients do not become detached from who is actually delivering the works. In some cases, Tier 1s employ so many smaller contractors that they do not understand their own pricing. This becomes very problematic for price and risk management, as well as inefficient.

Government proposals to simplify public sector contracts for SMEs to cut the costs of bidding for government contracts should augment diversity in the tender process. Diversification of markets, coupled with less onerous risk transfer and reduced bidding requirements, will enable more SMEs to participate in the supply chain without sacrificing economic sustainability.

In the course of our investigation it was noted that the greater distance a public client had from HM Treasury, the better the procurement experience. Good procurement experiences were particularly found where budgets were ringfenced and were not subject to political manipulation. This demonstrates that certainty provides a better procurement outcome.

HM Treasury has recognised the value of improving the visibility of the pipeline to enable infrastructure employers to respond more effectively to the upcoming skills needed by infrastructure projects.

Changes must be made now in order to secure the future for UK infrastructure, enable companies delivering projects to prosper and be ready to face the forthcoming technological challenges and opportunities.

---

Contract Awards Based On Lowest Cost

Current procurement processes, especially in the public sector under the purview of EU and UK legislation, can be long-winded, with the prospect of legal challenge giving rise to the risk of further delay. As a result, those procuring are motivated to adopt an evaluation process that limits the potential for dispute.

The award of a contract is often more defensible if based on the lowest price bid rather than less quantifiable factors such as quality, capability and capacity to deliver, and risk exposure to a contractor on other projects. Procurement on a lowest cost basis, however, fails to capture the value which the private sector is capable of adding to the delivery of infrastructure projects and outsourcing of services.

The Procurement Working Group found that areas where the private sector can add value and skills are usually first to be cut from tenders to reduce the overall cost of a project. Government should not therefore expect investment in skills training, apprenticeships, local sourcing, integration of SMEs and improvement of payments in the supply chain to meet its objectives when procuring on lowest cost basis, unless it is prepared to pay for this.

For many years, inward investment in skills and technology have been mutually exclusive with shareholder returns, with the latter frequently prioritised over the former. Procurement on a ‘value for money’ basis should alleviate this tension and enable contractors to deliver both inward investment and returns for their shareholders.

Procurers must ensure that the delivery of contracts on a ‘value for money’ basis is evaluated ex-post to ensure that investments in the supply chain have been made as agreed and to build an evidence base for future projects.

Procurement on a lowest cost basis is certainly not behaviour exhibited by the whole industry. Examples of infrastructure clients procuring sustainably by awarding contracts based on ‘value for money’ not lowest cost were identified throughout the Working Group’s research and in interviews with CEOs of clients. Highways England, Homes England and many of the Water companies were repeatedly named as bodies that had good procurement practices.

Procuring on a lowest cost basis can be an indication of other pressures on a project, such as turnover and retention of staff. When encouraging procurement on a ‘value for money’ basis it is important to consider the project as a whole to understand the motivations for lowest cost procurement to be able to address them.

In cases where procurement is undertaken on a value for money basis, evaluation of contractor management has become a widely used tool to determine the compatibility of client and contractor. The expected quality of a project and confidence in a contractor’s delivery capabilities were also noted as factors assessed in some procurement processes.

Procurers should also not forget the initial benefits evaluation of a tender bid once a contract has been awarded and work or the service is underway. The initial evaluation provides a vital tool by which to measure the performance of a contractor ex-post and can help to establish if the procurer has achieved value for money from outsourcing the work.11

Some noted that other jurisdictions gave greater weight to social value in their approach to procurement than the UK. This enabled contractors to deliver such values without being driven down on costs to unsustainable levels.

Furthermore, one interview participant recognised that selecting the lowest cost tender bid did not guarantee that the project would eventually be delivered at the lowest cost. The focus of procurers on lowest cost demands that contractors make cuts to bid proposals in order to win the tender that then result in being undeliverable in reality.

Another recognised problem in the sector is of contractors underestimating the cost of a project, leading to large cost overruns in completion. Those advising clients also have a role to play in this. There is a tendency to ‘value engineer’ a solution to enable a project to be economically viable; however, this can lead to increased costs later in the project lifecycle. This is an inefficient practice that does not allow the public sector to properly budget for costs.

The procurement of a project can often be rushed in order to reach the construction phase sooner; however, this means that risk is identified later in the delivery of a project, because it is not fully understood upfront. For this reason, when time is artificially driven out of a programme of works to make cost savings, projects will inevitably take the initial amount of time planned.

HM Treasury’s Green Book outlines proper procedure for Government appraisal and evaluation of projects. It states that social benefits should be monetised where possible to factor them into the economic evaluation of a policy option and allow more considered comparison against costs.

In particular, HM Treasury has published guidance on Managing Public Money which details how all public procurement should be undertaken.

It provides that Government Departments are, not exhaustively, responsible for:
• working cooperatively with partners in the public interest;
• treating its customers and business counterparts fairly, honestly and with integrity;
• giving timely, transparent and realistic accounts of its business and decisions, underpinning public confidence;
• taking a balanced view of the organisation’s approach to managing opportunity and risk;
• imposing no more than proportionate and defensible burdens on business;
• carrying out procurement and project appraisal objectively and fairly, using cost benefit analysis and generally seeking good value for the Exchequer as a whole;
• using management information systems to gain assurance about value for money and the quality of delivery and so make timely adjustments;
• avoiding over defining detail and imposing undue compliance costs, either internally or on its customers and stakeholders.12

Quantification of social benefit and other more holistic factors which contribute to value for money is inevitably subjective; however, this should not entirely prevent evaluation on a value for money basis.

A Balanced Scorecard (BSC) approach provides a framework for developing a procurement which considers cost, as well as more complex matters such as social and environmental impact. The guidance issued by the Crown Commercial Service in October 2016 applies to all projects with a value of over £10m of Government Departments, Executive Agencies and Non-Departmental Public Bodies.

The Olympic Delivery Authority has used, and HS2 is now using, a BSC approach to achieve value for money – the optimum

12 HM Treasury, Managing Public Money, p.20.
combination of cost and quality over the life of the investment.

Seven strategic themes are proposed by the BSC guidance which should prompt procurers to think about how these apply to a specific project: solution quality; cost; supply chain; employment and skills; environmental sustainability; health and safety; and outcome benefits. Each theme includes a number of critical success factors and suggestions on how procurers should apply these in practice. A number of sensible proposals are made including that:

- Procurers should test their requirement of the market at an early stage to ensure there is sufficient capability;
- A procurement should not restrict innovative thinking by suppliers which could offer a better value for money solution and facilitate development of the industry;
- A clear set of objectives for a project based on market capabilities;
- Major projects and programmes should be clearly signposted by the Government’s investment pipeline to enable contractors to get ready to deliver;
- Evaluation of bids should be on a whole-life cost basis, not just initial price;
- Procurers should ask for supply chain plans setting out the relationship between a prime contractors and lower-tier contractors, with emphasis on 30 day payment terms;
- A major project or programme should seek to foster innovation and improvement;
- A sound, systematic approach to health and safety, which is often an indicator of a contractor’s commitment to investment in its workforce more broadly;
- Suppliers should demonstrate a long-term focus and be prepared to submit evidence of past capability.

The examples of procurement practices set out here are evidenced in some procurements but not in all cases.

Capturing the benefits and costs of private sector delivery ascertains its true value and provides a sustainable means to evaluate the award of future public contracts. Only upon completion of a project is the real value realised and by then, with the budget bust and claims at large, neither the client or contractor is satisfied with the outcome.

Without establishing a definition of ‘value for money’ that captures these factors and can successfully justify a contract’s award, contractor margins will continue to be driven lower as they compete to win tenders. This will eventually undermine any remaining financial stability in the sector.

Recognition of ‘value for money’ in the procurement process will require greater flexibility in the consideration of tender bids by procurers as prescribed by the BSC approach. Some told us that consultants can drive up costs for contractors and clients as well as creating inflexible procurement processes, such as submission of tender bids through web-based portals which only allow for bids that are wholly compliant. This does not allow contractors or outsourcers to submit alternative bids that could offer greater ‘value for money’.

During the discussions of the Working Group, industry experts noted that a number of contractors were no longer bidding for tenders that did not offer sustainable margins, where there is no warning a contract will be put out for tender, or where the contract’s terms are unfair. John Homer, CEO of NMCM, recently rejected a contract for HS2’s phase one joint venture because the contractor would have to serve in a Tier 2 role.13 Given the current volatility in the industry, contractors do not want to be reliant on another Tier 1 contractor for payment. This behaviour may trigger some reform of individual tenders, but not the wider industry reform which is truly

needed to reinforce the financial stability of those operating in the sector.

Clients need to ensure that tenders are attractive and offer a fair deal for contractors to bid for to encourage competition and facilitate the greatest value for money.

Inadequate Investment In Skills

36,531 newly skilled labourers would need to be added to the workforce each year in order to deliver the National Infrastructure Plan.\(^\text{14}\)

Infrastructure as an industry is suffering from a huge skills deficit that ranges widely from builders to architects. HM Treasury identified the breadth and scale of the skills shortage in UK infrastructure in September 2015 with the National Infrastructure Plan for Skills;\(^\text{15}\) however, little progress has yet been made. The report estimated that 250,000 construction and over 150,000 additional engineering and construction workers would be needed by 2020 in order to deliver the IPA’s Pipeline as of 2015 comprised of 564 projects. This would require recruiting and training nearly 100,000 additional workers.\(^\text{16}\)

Moreover, 270,000 skilled people would be needed each year to build an additional 110,000 homes per annum beyond those already agreed in order to keep pace with the UK’s growing and ageing population.\(^\text{17}\)

The Farmer Report recommended that the building and construction industry needed to work harder to attract the next generation of employees by promoting a more modern image and demonstrating the wide-ranging career routes.\(^\text{18}\)

Over the next 5 years approximately 1 million construction workers and professionals will retire or be over the age of 65.\(^\text{19}\) This will exacerbate the skills and leadership deficit in the industry. Given the number of schemes in the IPA’s pipeline has since increased to 684, the need to recruit is now paramount to the future survival of the industry.

Technology will pose huge challenges and opportunities for the way that infrastructure is delivered as well as the types of projects. As a result, HM Treasury has estimated that the industry will need to up-skill and retrain 250,000 existing employees.\(^\text{20}\)

Procurement is a particular area of skills shortage, especially in the public sector. In examining the skills of procurers in the industry, the majority of CEOs and procurement experts interviewed thought that procurement skills had not noticeably improved in recent years. Procurement was noted by one participant to be an “unloved profession” to which it was difficult to attract new workers.

\(^{14}\) Arcadis, Talent Scale, 2017, p.12.
\(^{15}\) See: HM Treasury, National Infrastructure Plan for Skills, September 2015.
\(^{16}\) Arcadis, Talent Scale, 2017, p.6.
\(^{17}\) Ibid., p.10.
\(^{19}\) Ibid., p.32, Figure 13.
Those who thought that procurement skills had developed tempered their view, noting that procurement skills remained unevenly distributed amongst private and public sector clients alike. For example, Highways England was frequently referenced as an exemplary study of efficient and well managed procurement, yet other Government Departments had very poor reputations. Government should seek to become a good buyer across all departments and bodies rather than in exceptional cases.

A single project only has a small window to influence development of a particular skillset in the industry; the whole supply chain will need to work together to ensure that skills deficits are recognised and addressed uniteledy.

It will take time to fill the quantity and skill-level of positions within infrastructure by sourcing employees from other sectors and retraining current employees. Greater visibility of the project pipeline will be essential to getting the right skills in the sector to deliver projects now and in the future. Certainty in the pipeline of future projects will create a long-term career path for new workers, making the industry more attractive for the next generation to join. Contractors cannot be reasonably expected to hire apprentices and skill up their existing workforce without certainty that proposed projects will manifest.

The Tunnelling and Underground Construction Academy setup by Crossrail in 2011 has trained 20,000 people using skills and safety courses designed and delivered by industry experts. This facility will go on to be used by Tideway; however, it is not economically viable for each infrastructure project to develop a training academy specific to its skill requirements. It should not be the responsibility of projects themselves to train people with the skills to deliver it, but the construction companies who win the contracts. The industry must undertake this change, but government must enable it by providing a better forward look on upcoming projects.

Furthermore, training employees on a project basis limits the transferability of skills across the industry as they are often project specific. Empowering infrastructure employers to skill-up their own staff would naturally develop greater transferability of skills across projects and facilitate the sharing of knowledge across the industry to the benefit of all.

The present skills deficit in infrastructure will be exacerbated in the immediate future by Brexit’s impact on the labour force which is heavily supplemented by European migrants. 1 in 8 construction workers are not UK citizens, rising to ½ of those working in London. Over three quarters of non-UK construction workers expect to stay in the next 12 months, but this could change in the long term, increasing the skills deficit.

Procurement frameworks have alleviated some pressure on the procurement skills deficit, in particular on smaller scale projects. One successful example is the Re:Fit Framework used by Local Partnerships to procure energy saving technology retrofitted to local authority owned buildings. The Framework provides commercial delivery support and can be involved early in a project to offer advice

---


22 Construction Industry Training Board, MIGRATION AND CONSTRUCTION: The view from employers, recruiters and non-UK workers, June 2017, p.12.

23 Ibid., p.5.
before private sector involvement. Projects must be prepared to engage with the market to ensure good procurement and delivery success.

Procurement skills are often not a priority for local authorities, so procurement teams are usually very small or even non-existent. This allows for little opportunity to share good practice from larger projects with local authority teams. Local authorities are arguably responsible for around 50% of investment in UK infrastructure, therefore it is essential to share the lessons of good practice from larger projects to maximise procurement efficiency across the industry.

Small projects, in particular, should ask themselves three questions before commencing procurement to determine the delivery approach and level of risk they should take:

- What skills do they have?
- What capacity do they have?
- Where are the capacity gaps in the project?

Procurement and good project management skills sit together. Assessment of a procurement team’s capability is the first key step to successful procurement. Unmanaged frameworks without the necessary skills to project manage are not the solution to procurement problems or the skills deficit more broadly.

The IPA’s Project Initiation Routemap sets out a process by which clients can assess their procurement capabilities before starting a project “to achieve more efficient outcomes and address the high cost of delivering infrastructure”. It is particularly important to address the problem of projects being announced with timelines and costs imposed before plans have been properly tested. This sets projects up for poor delivery and cost overruns before they have even begun.

The Project Initiation Routemap intends to be a reflective process that ensures the right questions are asked prior to the delivery phase commencing and that risks are properly understood. Applying this to projects both large and small will improve delivery outcomes.

The drive to reach the construction phase of the project often does not allow the appropriate time for the Project Initiation Routemap to be employed fully, if at all, and the project suffers as a result.

CHAPTER 4: INDUSTRY AND GOVERNMENT ACTION

Significant work is underway across the industry and Government to address the problems faced by the sector. This work will be crucial to the successful delivery of future UK infrastructure.

There have been significant efforts by both the public and private sectors to improve the environment for infrastructure investment and project delivery.

The UK Government launched its Industrial Strategy with the aim of boosting productivity through backing businesses to create jobs and support investment.\(^{25}\) The white paper outlined five foundations for productivity – ideas, people, infrastructure, business environment and places – on which a series of Sector Deals have been released. The Sector Deals provide a clear indication of Government policy for a sector which have improved transparency, certainty and investment opportunities for those so far published. These include construction, rail, automotive and nuclear.

Project 13, the initiative launched by the Institution of Civil Engineers,\(^{26}\) has sought to devise a better approach to delivering infrastructure to address the issues all too common in the delivery of projects. The enterprise approach devised by those involved with Project 13 will provide the tools to incentivise productivity and efficiency, as well as facilitate long term relationships between clients and suppliers to the benefit of all.

The Procurement Working Group would like to add its support to this work and present its recommendations in supplement to these proposals.

Following the collapse of major Government outsourcer Carillion, Rt Hon David Lidington CBE MP gave a speech to Reform in June 2018 in which he set out proposals from the Cabinet Office on a range of issues to improve trust between the Government and private sector.\(^{27}\) Amongst the proposals were:

- All key suppliers to Government will be required to develop “living wills” enabling contingency plans to be rapidly put into place in the event of failure
- Government Departments will introduce new guidelines, rules and principles that will encourage new entrants to the market in order to build mixed markets of suppliers
- The Government will require a number of key performance indicators such as response rates, on-time delivery and customer feedback to be published for Government contracts with further transparency initiatives in coming months
- All 30,000 contract managers across the Civil Service will receive high quality training to undertake the proper management of contracts and suppliers
- The requirement of the Social Value Act 2012 that all major Government procurements must consider social value will be changed to require social value to be explicitly evaluated
- The Government’s 4,000 commercial buyers will be trained in assessing the

\(^{26}\) Institution of Civil Engineers, Project 13, 2018.
\(^{27}\) Cabinet Office and Rt Hon David Lidington CBE MP, Chancellor of the Duchy of Lancaster speech to Reform, 25 June 2018.
social value of new procurements so that contracts are awarded on the basis of more than only value for money – important though that is – but a company’s values too.

Two additional measures are being developed:

- For the Government’s biggest suppliers to provide data and action plans on how they plan to address key social issues and disparities
- Highlighting the introduction of a cyber security equivalent of a credit check on suppliers allowing risk assessment on suppliers in this regard.

The proposals aim to change the behaviour of Government as a buyer, in turn provoking the private sector to respond positively to such changes, creating a more sustainable industry. Explicit consideration of factors other than lowest cost when awarding tenders will serve to reform the behaviour of larger contractors who have simply sought to maximise their chances of winning a contract under the current structure.

The collapse of Carillion has highlighted that Government has become dependent on too few contractors and their supply chain. The report from the Public Administration and Constitutional Affairs Select Committee chaired by Sir Bernard Jenkin MP – *After Carillion: Public sector outsourcing and contracting* – suggested that “diminishing competition and high barriers to entry for new suppliers means there are too few bidders, so the market looks more like an oligopoly.”

Without a sufficient number of alternative contractors and suppliers to replace the role of a delivery partner that has gone into administration, government risks further overloading the system by stretching industry resources and concentrating risk exposure. In the event that another private sector company were to encounter financial difficulty, this could prove detrimental to the delivery of public infrastructure and services.

The failure of major government outsourcing companies puts huge strain on public resources and creates widespread disruption across public services. The Working Group supports Rt Hon David Lidington’s proposals to introduce a living will for private companies delivering public services and projects which should mitigate some of these impacts. A credible successor structure, will also reduce pressure on government to save companies that fall into economic difficulty and by virtue incentivise the market to act more responsibly.

The Working Group welcomes these proposals and the resilience they will bring to Government upon implementation.

---

CHAPTER 5: HOW TO PROMOTE A MORE SUSTAINABLE INDUSTRY

This Working Group recommends a series of changes to the analysis, structure and culture of UK infrastructure procurement in order to create an environment which will foster greater investment and upskilling by the industry.

Based on its observations of current industry behaviour due to the lack of certainty that projects will actually be delivered, The Infrastructure Forum’s Procurement Working Group has made the following recommendations:

**Introduce A Pledged Projects List**

HM Treasury should issue a Pledged Project List to offer greater security to contractors in order that they can better plan for upcoming work and submit more accurate tender bids.

Pledged projects should be considered those projects which have made a successful business case to HM Treasury and have received approval from the Government Department or public body concerned to pursue delivery.

The Pledged Project List should be supplementary to the IPA’s Pipeline, which captures UK infrastructure projects in the public domain. Release of this information by government assumes that there is reasonable intention to deliver, but this is not sufficient certainty for contractors and investors to act. The Pipeline, in its present form, also includes many projects that have already been procured and are under construction, as well as programmes that encapsulate a multitude of projects.

Contractors presently find it difficult to hold onto staff that are not working on a project due to very tight margins. Contractors therefore require flexible labour resources to cope with the peaks and troughs of project supply; the IPA’s Pipeline is not conducive to retaining a permanent labour force. The ability to better plan for upcoming work would help contractors maintain a more stable workforce which would improve sustainability for the industry and facilitate skills development.

Introduction of a Pledged Project List would improve certainty for contractors of which projects they should expect to deliver, enabling them to stabilise the labour force required. This will facilitate greater investment in and retention of employees, improving the quality and efficiency of project delivery.

Economic cycles influence a contractor’s propensity to bid for a contract. Improving transparency around which tenders are impending would allow contractors to plan which work they should bid for. As a consequence, contractors would bid for works most suited to their business models and specialities, producing better outcomes for the industry.

As much detail as possible should be included on a Pledged Project in the List to enable contractors to determine the scope and specificity of a tender. This will promote more accurate tender bids and a more sustainable industry when revenue streams are more predictable.

Greater detail on the individual projects in a programme of works would help contractors to better estimate the full cost of delivery and establish joint

---

ventures or consortiums to deliver works if they pose a significant spend.

Jay Edward’s paper *Contractorisation of UK Defence* outlines a number of recommendations for the defence sector to better organise the outsourcing of services to maximise efficiency gains whilst retaining government control and skills. In particular, Edwards highlights the need to provide as much detail as possible to contractors in advance of a procurement in order that they can bid accurately for the scale and scope of the services required. This will mean that contractors will not bid based on estimates and be forced to include additional risk. This should not though be taken to restrict contractor innovation in bids or considerably increase planning timescales.

Greater certainty would also allow investment by contractors in lean construction, modular and off-site fabrication and for these methods to be driven throughout the procurement process to improve the costs and timescales of project delivery. Innovation in delivery technologies and methods would reduce project costs and speed up delivery time, benefitting society at large. The IPA has announced a new approach to building – a platform approach to design for manufacture and assembly – which it is currently consulting on.

The government does publish a Major Projects Portfolio which includes Delivery Confidence Assessment ratings, financial information on whole life costs, annual budgets and forecasted spend, project schedules and narratives; however, as is the case for the National Infrastructure and Construction Pipeline, many of the projects included are already under construction.

Furthermore, the Pledged Project List should set out the desired outcomes that each contract or project is aiming to achieve. Once these outcomes are clearly established and communicated in the early stages of planning a project, it will become much easier to measure tender bids in terms of how they deliver these outcomes. This provides the tool by which to evaluate ‘value for money’. A project or contract cannot deliver ‘value for money’ if it fails to deliver the desired outcomes, no matter at what price it is procured. Taking an outcomes first approach to procurement will ensure that social value is a priority in tender evaluations.

The Pledged Project List should also include those projects valued upwards from £30million. This would lower the current £50million threshold used by the IPA’s pipeline and increase visibility for smaller contractors and at the local level, particularly Tier 2 contractors. The additional projects that would be included in such a list would be within the scope of the IPA to collect information based on existing resources. In Quarter 1 2018 there were 7 infrastructure related contract awards valued between £30-50m. 27 infrastructure related contract awards valued between £30-50m occurred in 2017.

The Pledged Project List should be user friendly and easy to extract the necessary information, unlike the present Excel spreadsheet uploaded by the IPA. An interface should be created which links to further detail on the procurement of a project. This information is currently available separately from Government

31 Ibid., p.23.

32 Tussell.
Department websites. Implementation of this interface would create a ‘one-stop-shop’ for the industry. In order for this interface to work efficiently, it must be updated regularly with accurate information on the stage of procurement and those tenders outstanding.

It would be helpful if the Pledged Project List could be divided into two categories defined by expected delivery time frame – short term (up to 5 years) and medium term (5 to 10 years). This would enable the private sector to make more informed investment decisions on skills and technology. HM Treasury will be publishing a National Infrastructure Strategy in 2019 which will outline the long term goals for the industry and respond in depth to the National Infrastructure Commission’s recommendations set out by the National Infrastructure Assessment.33

An expected delivery timeline should also be included in the List of Pledged Projects. In the course of our discussions it became clear that some projects that have made a successful business case, which the Government intends to implement, may only actually be delivered in the medium to long term. To experience the fullest benefits of this, the Pledged Project List should be unconstrained by Government spending periods.

Project details should include the expected delivery time for a project to provide a reference for accountability of delivery.

The Pledged Project List, unlike the current IPA’s Pipeline, will exist to serve the needs of the industry as a whole and promote a long-term view of project delivery.

Lessons should be learnt from Infrastructure Australia’s Infrastructure Priority List. The full list is published every year as a formal document but continuously updated to keep the market accurately informed about the status of upcoming projects. It is accessible through an online portal whereby all projects for tender, under construction and undergoing planning are listed with detail of the works entailed. Projects also have expected delivery time estimates to provide greater transparency to the industry on timelines for investment.

Key to the success of Infrastructure Australia’s List is the differentiation between:

- ‘initiatives’ – “potential infrastructure solutions for which a business case has not yet been completed” – and
- ‘projects’ – “for which a full business case has been completed and been positively assessed by the Infrastructure Australia Board.”34

This more specific definition of ‘projects’ provides much greater certainty to the market and a level of visibility by which contractors can plan resources and skills in advance. We recommend such a definition is adopted by HM Treasury, the IPA and the National Infrastructure Commission to clearly separate which work streams are to be ‘pledged projects’.

The Infrastructure Priority List goes further by dividing projects with a fully completed business case into ‘High Priority’ and ‘Priority’ lists which offers an insight to the likelihood that these projects will be procured. A High Priority Project is that which “addresses a major problem or opportunity of national significance.”35 A Priority Project is that which “addresses a nationally-significant problem or opportunity.”36

The National Infrastructure Commission could apply a similar structure to its National Infrastructure Assessment to help the IPA and industry assess which projects should be delivered as a priority.

Heathrow Airport notably publishes its annual Strategic Business Plan which

36 Ibid., p.3.
includes all projects it expects to undertake during the period within which it identifies key projects. This visibility helps contractors to plan which projects they will likely be called upon to deliver first and enable the necessary inward investment.  

Pre-contract engagement with contractors improves the outcome of projects: designs can be developed with both specification and budget constraints in mind; cost shocks on procurement are minimised; delivery is more efficient as contractors are aware of the specification, skill and supply chain requirements of a project.

The process of determining which projects should be included in the Pledged Projects List should be formalised. As it is currently understood, ‘approval in principle’ – the stage at which a project is announced, and contractors should begin gearing up to deliver – does not have a common industry definition. This has led to different departments and authorities releasing information on projects at different stages – some too early which pose too much uncertainty for contractors, others too late thus not allowing sufficient time for contractors to prepare.

Network Rail’s Governance for Railway Investment Projects (GRIP) framework is used to manage investment schemes from project inception to close. This enables Network Rail to establish stages of certainty on a project’s delivery before significant investment from the sector is undertaken.

In this process, a project will reach an ‘approval in principle’ stage whereby Network Rail and the relevant bodies involved in the project development are satisfied that appropriate standards have been met and the project meets the remit;  

however, even Network Rail recognises that “different companies (including London Underground) have different definitions of when a project has reached the ‘approval in principle’ stage.”  

Network Rail specifically outlines that “approval in principle” is when a decision has been made to launch a detailed design following the selection of a single option for proposed enhancement and when that design is clear enough on what is intended.  

This guidance is somewhat further along in the process than we recommend a common definition of ‘approval in principle’ should be; however, it does prove a useful template on which to base the design of suitable set of questions for the industry.


40 Ibid.
Network Rail recommends that, as a minimum, the following questions be considered before a scheme reaches the ‘approval in principle’ stage:

- Have you looked at all the feasible options and found a single preferred option?
- Is the design detailed enough to be clear and unambiguous about what is intended?
- Is the design sufficiently detailed that it is clear that the design is fit for purpose, by comparison with the requirements the design is to meet?
- Have you considered the relevant legislation and other applicable standards in the scheme’s design? And is the competent person satisfied that the design complies with the legislation and standards?
- Is the competent person satisfied that the design is adequate to start the detailed design of individual components and assemblies?
- Is the competent person satisfied that the separate elements of the scheme design will, when brought together, have the required functionality and meet applicable legislation and standards. Will they also address interface issues between the project and adjacent buildings and systems?
- Are the residual risks from the scheme’s design demonstrably as low as reasonably practicable? Is there a complete and adequate risk register available through the Stakeholder Relations Code of Practice – Investing in the Network to those who will carry out the detailed design, construction, testing and commissioning?
- Have suitable qualified persons carried out the design, and have they followed an established design process?

In being able to answer these questions, a project proposal has reached a suitable stage by which the rail industry should prepare for procurement to be initiated.

Although Network Rail is currently the subject of an Inquiry into the delivery of projects, these guidelines demonstrate a thoughtfully set out approach in principle.

A set of questions similar to these should be implemented across UK infrastructure to establish whether a project is at the stage where it can be added to the Pledged Project List.

The introduction of a Pledged Projects List should improve the financial stability of contractors. Certainty in the pipeline of work and a longer-term outlook should increase the share prices of contractors and encourage investment in the sector. Although infrastructure is a long-term investment, we should not expect investment potential to be realised based on unknown future income.

Once contractors are able to scale up to meet the needs of the Pledged Projects List, the capacity of the industry will grow. This will initiate a positive cycle enabling more infrastructure projects to be delivered, more sustainably and more efficiently in the future.

In providing the suitable conditions for the private sector to rebuild its permanent labour pool and utilise industry expertise to deliver public infrastructure more efficiently, the case for private delivery of public infrastructure would be easier to make to the general public. The introduction of a Pledged Project List will help address the trust deficit and move away from the Carillion model of “a relentless dash for cash”, as dubbed by the Select Committee investigation into the collapse.

41 Network Rail, Investing in the Network, 2018, pp.24-25.

Although Network Rail is currently the subject of an Inquiry into the delivery of projects, these guidelines demonstrate a thoughtfully set out approach in principle.

A set of questions similar to these should be implemented across UK infrastructure to establish whether a project is at the stage where it can be added to the Pledged Project List.

The introduction of a Pledged Projects List should improve the financial stability of contractors. Certainty in the pipeline of work and a longer-term outlook should increase the share prices of contractors and encourage investment in the sector. Although infrastructure is a long-term investment, we should not expect investment potential to be realised based on unknown future income.

Once contractors are able to scale up to meet to the needs of the Pledged Projects List, the capacity of the industry will grow. This will initiate a positive cycle enabling more infrastructure projects to be delivered, more sustainably and more efficiently in the future.

In providing the suitable conditions for the private sector to rebuild its permanent labour pool and utilise industry expertise to deliver public infrastructure more efficiently, the case for private delivery of public infrastructure would be easier to make to the general public. The introduction of a Pledged Project List will help address the trust deficit and move away from the Carillion model of “a relentless dash for cash”, as dubbed by the Select Committee investigation into the collapse.

Develop A ‘Contract Footprint’ Framework For All Government Infrastructure Projects

The IPA should develop a Contract Footprint Framework and migrate those projects and programmes currently listed on the IPA’s Pipeline that are already under construction.

The ‘Contract Footprint’ was introduced by the Olympic Delivery Authority for London 2012 and maps all projects and their respective procurement processes, including those contracts out for tender, where contracts have been awarded, dispute processes, status of the work and value of contracts. This framework offers a snapshot of a specific project and UK infrastructure as a whole whereby it is easier to identify possible cost overruns, delivery time and risk exposure to contractors.

Projects should begin to be transferred to an IPA Contract Footprint Framework as soon as the procurement process begins; more data will be added once contracts are put out for tender, bids have been submitted and contracts have been awarded.

Once all contracts have been awarded, a project should be migrated fully from the Pledged Project List to the Contract Footprint Framework. The Contract Footprint will then provide a comprehensive overview of supply chain exposure for all infrastructure projects in the UK.

The collapse of Carillion has provided the impetus for government to diversify its delivery partners to prevent one supplier being overly relied upon with potentially damaging consequences. Introducing such a framework would prove exceptionally useful for the IPA to quickly identify public sector exposure to a contractor that might be in financial difficulty. An IPA Contract Footprint system would work alongside the Crown Representatives to improve the resilience of supplier monitoring by government.

The Crown Representatives were introduced by the Cabinet Office in 2011 to “act as a focal point for particular groups of providers looking to supply to the public sector.”43 They should help to provide continuity for Government as a single buyer and monitor relationships with major suppliers. For Crown Representatives to function optimally in their roles they need a cross industry view of the government supply chain which an IPA Contract Footprint would provide.

Use of this process and submission of the necessary information to construct the Framework should be standardised in Government Departments to provide greater continuity and stability. This would also enable the IPA, Cabinet Office and Crown Commercial Service to more accurately update the Pledged Project List and evaluate delivery of projects.

Collecting data on a project throughout its construction would provide a wealth of evidence which should be utilised to inform future procurement decisions. For example, it would quickly become clear if a particular contractor was consistently going over budget or failing to deliver on time; equally, the Crown Representatives would be able to identify clients which were not setting realistic budgets and managing risk properly.

Introduction of an IPA Contract Footprint Framework should also provide an opportunity to record, track and measure contractor performance. This information

would provide quantifiable evidence of contractor performance to inform the selection process for a contract on a ‘value for money’ basis and provide a source of accountability for behaviour going forward.

**Advocate An Economically And Socially Sustainable Definition Of ‘Value For Money’ When Awarding Contract Tenders**

Both the public and private sectors need to restore the partnerial aspect of ‘public-private partnerships’. The government should review its definition of ‘value for money’ to ensure that all clients take consideration of the wide range of factors that contribute to delivering social value. This will ensure the skills, expertise and capacity offered by private sector delivery are properly captured and valued during procurement.

HM Treasury’s Green Book outlines guidance for public bodies on methods of transparent, objective, evidence-based appraisal and evaluation of proposals to inform decision making. It defines ‘value for money’ as the delivery of social value in terms of costs, benefits and risks. 44

Social value is “how the government can improve social welfare or wellbeing” through the proposal being considered. 45 Social Value should be central to all Government decision making.

The definition of ‘value for money’ as set out by the Green Book does in principle allow for the consideration of a wide range of factors when procuring a project, not only cost; however, in practice it becomes very difficult to assess more subjective facets of social value.

Public authorities must have regard to economic, social and environmental well-being in connection with public services contracts and for connected purposes. The Public Services (Social Value) Act 2012 provides that public authorities must have “regard to economic, social and environmental well-being in connection with public services contracts; and for connected purposes.” 46 The proposed reforms by Rt Hon David Lidington CBE MP to the Social Value Act will ensure social value is explicitly considered in public procurements.

Clients, both public and private, in some cases rely on assessing tenders predominantly on cost to overcome the difficulties in assessing social value. Cost is a quantifiable factor on which a tender award can be easily justified, yet it fails to capture the purpose of outsourcing and public-private partnerships and is not a guarantee of outturn cost.

This approach does not capture the added value of private sector skills, expertise and capacity which were the original drivers for the Private Finance Initiative. Capturing these benefits ascertains the true ‘value’ of private sector delivery and provides a sustainable means to evaluate the award of public contracts other than cost.

Continuing to procure infrastructure projects on a lowest cost basis will drive contractors’ margins lower, undermining any remaining financial stability, growth and investment in innovation in the

---

Social value is “how the government can improve social welfare or wellbeing” through the proposal being considered.


45 Ibid., p.5.
sector. Procurers should recognise investment by contractors in the supply chain and consider this when awarding tenders. This would take the burden of investment away from individual projects and improve overall value for money.

Some suggested that ‘value for money’ is presently defined in negative terms; value is evidenced by removing poor value from contracts, rather than achieving project outcomes and delivering social value.

It was thought by some of those interviewed that there was a lack of knowledge in some areas of the industry about how to award tenders on merits other than lowest cost. Improvement of procurement skills, addressed later in these recommendations, would work to remedy this.

Some crude examples of alternative methods were heard in our conversations with industry CEOs such as the immediate elimination of the lowest and highest cost bids before evaluation of the remaining bids in greater depth. Caution should be taken not to encourage market cartelisation through such processes. Market fragmentation to a degree signals healthy market competition and consideration of factors other than lowest cost will promote this if done so thoughtfully. It was noted though that given the current high levels of market fragmentation, reducing competition was a long way off.

Procurers should, if they do not already, carefully consider the capability, culture and alliancing behaviour of a supplier when evaluating a tender bid to ensure the relationship between client and supplier can deliver the best value for money.

It was suggested that all market players should try to increase transparency between construction companies and Special Purpose Vehicles (SPVs) to enhance understanding of procurement rules and the desired outcomes. Some interviewees did suggest that the current structure of SPVs was flawed because they were in the best position to influence the outcome of a project but lacked all incentive to do so.

One factor that should be included in any such balance scorecard used to evaluate tender bids is commitment to and use of local supply chains. This should be monitored and tracked to provide a mechanism to measure good behaviour.

Rewarding good performance on prior projects in the selection process for evaluation of tenders would quickly drive positive change in the industry and meet a number of the Government’s objectives for investment in skills and technology. This will be facilitated by the introduction of an IPA Contract Footprint Framework.

Future Public Private Partnerships have a role to play in this. Contracts should be more flexible to enable contractors to put forward a sustainable bid with unique elements that offer value for money. This will also allow for technological improvements to be made during the lifetime of an asset which will deliver greater efficiencies for those using infrastructure.

Furthermore, project financiers should in some cases be more realistic in the levels of risk they expect contractors to take on. Ultimately, in many cases these same organisations driving high risk transfer to contractors will at the same time be supporting them. It is in the interests of all involved in a project to have an appropriate and fair degree of risk transfer for the sustainability of the industry. HM Treasury must lead by example on this issue.

The benefits of private sector delivery cannot be realised at the industry’s current low margins, therefore government and the general public must come to understand that projects with social purpose still cost money; in turn, when infrastructure is delivered sustainably, greater economic growth can be realised.

The National Infrastructure Commission’s proposal for redevelopment of the
Oxford-Milton Keynes-Cambridge corridor is one such example. Although a huge upfront investment in transport and homes, the project represents much more than the infrastructure being created – it is a vision for a technological hub, productivity growth and improved links between the UK’s top academic institutions. To realise a vision of such scale, the cheapest option will not be conducive to successful delivery.

**Use Two-Stage Procurement Frameworks More Widely**

The cost of competing in a procurement is often very high for contractors and comes with significant risk – huge sums are invested into developing a proposal which a contractor ultimately might not be chosen to deliver. In the current economic climate, contractors must be selective about which projects they bid for to save money. This drive for efficiency means that competition for tenders is reduced which is not beneficial for the industry.

The Working Group recommends that two-stage procurement frameworks are used more widely where appropriate to procure infrastructure projects. This will likely apply in the case of frequently occurring maintenance works, such as on roads and rail, and capital programmes with a broad scope.

Frameworks help to alleviate both the risk and cost involved in procurement. In a two-stage framework, the pre-qualification stage enables a client to ascertain those contractors with which it wishes to engage based on a broad range of factors specific to the client. Those contractors who are not fit to deliver the scope of works set out by the framework will not qualify.

Once a contractor has then been accepted onto a framework, they can bid for work tendered on that framework. Using a broader range of factors indicative of value for money to evaluate whether a contractor is fit to deliver the works in the pre-qualification phase will enable clients to proceed with greater certainty when awarding contracts that the outcome with deliver value for money. This will reduce the risk of legal disputes for contract awards which risk delaying projects.

Frameworks tend to group similar works together to achieve a more efficient procurement process and allow the client to build trusted relationships with the approved contractors over time. This will result in a better outcome for both the client and contractor. For example, it was noted by some interviewed that frameworks are particularly useful as they allow contractors who met the pre-qualification criteria to influence the design and methodology of a project. This helps to protect the client against spiralling costs during the second phase of procurement by making sure project designs are realistic and feasible to be delivered on budget.

Frameworks help to alleviate both the risk and cost involved in procurement. Furthermore, once the pre-qualification phase has been completed, the contractor does not have to go through this process again for the lifetime of the framework. This significantly reduces the cost to contractors to compete for tenders and would enable contractors to compete for more contracts, increasing market competition.

Incorrect application and use of frameworks can, however, be more detrimental to project delivery than using traditional procurement competitions. Users of procurement frameworks must evaluate the types of frameworks available in order to establish the one most suitable for a project or programme. Within that, project leaders must be cognisant of their capabilities to deliver the project given the extent of expertise
required to utilise the framework properly. This view was shared by leading members of the infrastructure sector during interviews.

It was noted in the course of discussions that there is a dearth of expertise in Government to undertake comprehensive pre-qualification for frameworks to achieve such outcomes at present.

One private infrastructure client suggested that, even when frameworks were working well, there was merit in occasionally using traditional procurement competitions to keep the supply chain honest. Implementing this mindset overcomes some of the potential disadvantages of using frameworks to procure as raised by interviewees: frameworks can limit the number of contractors bidding reducing competition; pre-framework qualification can be expensive and time consuming; frameworks add complexity from a contractor perspective which discourages SMEs from participating. Some interviewees though did think this might foster mistrust between contractors and clients, meaning contractors would not participate in the framework going forward.

Frameworks have greater benefits from a contractor perspective once a contractor becomes the incumbent supplier, affording a greater line of sight on future projects and enabling a contractor to invest in the contract to provide the expected efficiency gains of repeated interaction with a client. Similar benefits will be extended to the whole industry upon introduction of the Pledged Project List.

Interviewees noted that frameworks were inherently less risky than traditional competitions as they offered greater security of pipeline and increased chance of contract award once approved.

‘Participation fatigue’– when the same contractors repeatedly win contracts and others stop bidding – can occur on some frameworks and means that frameworks do not provide a true representation of a competition procurement mechanism. The use of frameworks to provide a tangible measurement of the diversity of participation in project tenders by government should therefore be cautioned.

In some cases, the mini competitions within frameworks could cost projects more money than traditional procurement if they were not employed correctly. Mini competitions could also incur abortive costs.

This evidence in the first instance makes the case for the continued use of procurement frameworks where appropriate. At a broader level though, the industry should use a mix of procurement structures to extract the merits of both frameworks and traditional procurement competitions.

**Permit Unsolicited Proposals Across All Government Departments Responsible For Infrastructure**

Once contractors become better capitalised through increased certainty afforded by a Pledged Project List, the introduction of unsolicited proposals would increase the number of projects that could be delivered in the UK and promote innovation in the sector.

The Department for Transport published guidance on Market-Led Proposals in March 2018. The guidance aims to encourage private companies to submit ideas to the Department for Transport (DfT) for improvements and additions to the current rail network. Whilst the guidance is specifically aimed at the rail industry, there seems no reason why it could not be applied to other sectors and adapted to the needs of other government departments. Wider adoption of this Guidance and these

---

proposed amendments should be actively encouraged.

Two types of proposal are outlined by the DfT guidance: those which do not require Government funding in order to implement – Type 1 – in which case, if approved, bidders proceed directly to Network Rail to advise on the integration of the project with the existing network; Type 2 – those proposals which would require Government funding and which are considered and undergo a competitive procurement process if a successful business case can be made.

Based on these structures, neither Type 1 nor Type 2 proposals as defined by the guidance from DfT incentivise the private sector to submit innovative ideas to improve the current network because the private sector is not financially compensated for investing in the development of such ideas.

Specifically, there are very few Type 1 proposals in which a viable business case can be constructed for a private entity to bear the cost of construction itself based solely on efficiency gains achieved by delivering the project, as usage fees cannot be charged by a private entity for rail.

For Type 2 proposals, once the idea has been submitted and approved, the Department or executing body must undertake a competitive procurement process for the project. This could mean that the private company who proposed the project would not be awarded the work to deliver the project, without reimbursement for the cost of development of the business case. If the costs of development are not reimbursed, then the proponent will make a loss by submitting an unsolicited proposal unless it makes the winning tender bid.

Under current OJEU rules, Government must run a fair procurement competition in which all bids are considered without bias, offering no way in which to ensure that the proposing contractor of a Type 2 unsolicited proposal could benefit from investing to develop it.

Dependent on the final agreement negotiated by the Department for Exiting the European Union, the UK might be able to deviate from the current OJEU procurement rules post-Brexit which could pose an opportunity to change current rules around resource allocation.

Nevertheless, in order to make unsolicited proposals viable irrespective of potential changes to OJEU rules, companies submitting ideas must be reimbursed for the cost of development if a Department elects to implement the proposed project and the contract is not awarded to the proponent. Therefore, Departments must treat the intellectual property of the proposal and the contract award for the execution of the project separately.

The qualification criteria for the business case of an unsolicited proposal should be considered carefully to ensure that already limited public sector resources are not unduly further stretched.

The South African Government provides an exemplary model in which if the company who submitted the proposal is not awarded the contract, the cost incurred to develop the proposals prior to submission is calculated by an accounting officer or authority on behalf of the Government.

---

“4.2.4.1 If the institution decides to proceed with the unsolicited proposal, the accounting officer or accounting authority must negotiate an unsolicited proposal agreement with the proponent. The sole purpose of the unsolicited proposal agreement is to guide the process in terms of this practice note between the institution and the proponent, in order to establish, amongst other matters –
(a) The methodology for determining any costs to be reimbursed to the proponent, should the procurement processes set out in paragraph 5 below result in an award for the product or service being made to a party other than the proponent;
(b) the procedure for further developing the project and responding to issues raised by the institution;
(c) the allocation of responsibility for developing bid documents in accordance with the institution’s supply chain management systems, provided that development of the document must always be under the supervision of the institution;
(d) the information in the unsolicited proposal must be treated as confidential; and
(e) the purchase of intellectual property rights, if any.”

The cost to be reimbursed is limited “to direct costs incurred by the proponent in developing technical materials relevant to meeting the criteria set out…”

Bidders in a procurement for an unsolicited proposal project must include repayment of the development costs to the proponent in their bid as per the South African model.

In such a circumstance where another contractor wins the contract for the unsolicited proposal other than the project proponent, the winning contractor must reimburse the development costs of the proposal upon award of the contract. Under this scheme, Government Departments can evaluate proposals based on their merits and the UK’s infrastructure need, without having to consider repayment of development costs.

If an agreement between the institution and proponent cannot be reached as to the amount to be reimbursed, then the institution is not responsible for any of the development costs but is not permitted to implement the project for the period of the current or next financial year. This serves to protect the intellectual property created by private companies when submitting unsolicited proposals that must undergo a competitive procurement process.

The Guidance used by the New South Wales (NSW) Government for Unsolicited Proposals provides further protection of intellectual property in the process of assessment which is equally as important to creating a receptive environment to elicit private sector proposals.

In the interests of transparency, proposals are published on the NSW Government’s website once the initial proposal has progressed to Stage Two of the assessment process in which the proposal is developed and a detailed business case is set out. The proponent, however, retains the right to object to information being published on the proposal if it could risk commercial negotiations or Intellectual Property.

The Working Group recommends that the Department for Transport amends the Guidance on Market-Led Proposals to incorporate such protections for proponents in order to encourage proposals.

49 National Treasury Republic of South Africa, Practice Note No.11 of 2008/2009, Unsolicited Proposals, pp.6-7, 4.2.4.1.
50 Ibid., p.7, 4.2.5.1.
51 Ibid., p.8, 5.2c.
Comprehensive assessment criteria for unsolicited proposals are also set out by the guidance from the NSW Government including seven themes which a proposal must satisfy to be considered:

- Uniqueness
- Value for Money
- Whole of Government Impact
- Return on Investment
- Capability and Capacity
- Affordability
- Risk Allocation.

It is usually the case that if a proposal has taken into account these themes then it will be in line with state objectives and stand a good chance of success. If Government makes a judgement that a proposal does not satisfy the criteria for uniqueness in particular, then it reserves the usual right to go to market with the proposal.53

We recommend that HM Treasury adopt this policy in regards to the treatment of unsolicited proposals in order that those proposing infrastructure projects are encouraged to do so and reimbursed for the intellectual property they develop if the project is successful. This will enable Government to draw on the expertise of the private sector to improve the UK’s infrastructure and develop a more comprehensive pipeline of projects.

**Create A Cabinet Office Procurement Team**

Government has deployed procurement sector talent at the top of the IPA, but the pace of change across Government Departments remains patchy. The Government should develop an expert procurement team which operates out of the Cabinet Office. This team should work flexibly across Departments and key projects and work closely with the IPA to evaluate and sign off unsolicited proposals and scrutinise the work of Departments objectively.

The team in the Cabinet Office should initially have a 5 year remit to improve procurement skills across Government.

The Government must lead the industry by its own example, focussing on innovation and upskilling procurement teams in Departments, improving links with supply chains and considering ‘value for money’ on a whole life project basis. This programme should form part of the Industrial Strategy.

This team should be mobilised to both help Departments with project procurement, authorise unsolicited proposals, and oversee specific projects to add continuity through the delivery process, bridging the procurement skills gap across government.

A Cabinet Office Procurement team would be best placed to assist with better risk decision making and would be more skilled in deciding what risks should be held by the government, rather than the private sector.

The Working Group proposes that at least part of the talent required to set up such a procurement hub should be seconded from the private sector to offer the agility required by such a team. This would bring private sector skills into the Cabinet Office to assist project delivery from the inception of the team and enable this knowledge to be shared with the Departments they work with.

Seconding staff from the private sector should be part of a long-term programme to improve public sector recruitment and retention of top talent. Government must recognise that this will require reforms to remuneration and career development opportunities within the public sector. Some people have noted that pay has improved for procurers at the lower levels of government, but there is still a long way to go to attract more experienced, senior professionals into the public sector.

In 2014, The Infrastructure Forum recommended that a central hub for skills be created for infrastructure in its paper *Strengthening Commercial Skills in the Civil Service*. It recommended that this central hub should not directly procure projects but “have a responsibility for ensuring that Departments reach a level of commercial skill.” This will enable the public sector to lead the way on knowledge sharing and investment in skills until such a time that the Pledged Project List provides sufficient continuity, sustainability and detail for contractors to inwardly invest at the levels needed. A stronger hub for infrastructure skills run by the Cabinet Office would much improve quality control of projects.

The Government’s Commercial Function (GCF) and the Crown Commercial Service support public sector procurement across departments and authorities. In particular, the GCF offers support on complex transactions, intelligence on suppliers, markets and sectors, guidance on good commercial practice, and developing the commercial capability of colleagues. The future vision for the GCF does set out many of the improvements we have recommended for the responsibility of the Cabinet Office Procurement Team. The role of this new Cabinet Office team should therefore be to support this development over its initial 5 year tenure and beyond this if further support is needed.

At the same time, Government should recognise the success of mandated and enabled leadership of infrastructure projects. The Olympic Delivery Authority for example was empowered to execute delivery of the London 2012 Olympic Park which was considered a huge success in procurement. Government should step back once a secure business case, high level structuring and finance are in place.

The Project Initiation Routemap developed by the IPA and the Infrastructure Client Group should be promoted and kept live to inform the work of this expert procurement team and those Departments and public offices that they assist. This guidance provides a good starting point for inexperienced project delivery teams to access their weaknesses and identify areas where a Cabinet Office team could help.

A Cabinet Office Procurement Team should act as support for public procurement teams considering unsolicited proposals

---

55 Ibid.
It is vital that this initial phase of the procurement process is not rushed in order to start construction sooner. Rushing the planning and assessment of capabilities will inevitably lead to problems later down the line for a project which could potentially have been avoided.

Implementation of the Project Initiation Routemap more widely in Whitehall and the rest of the country would spread best practice and develop procurement skills across the public sector.

A Cabinet Office Procurement Team should act as support for public procurement teams considering unsolicited proposals to alleviate the pressure on limited Department resources to structure and manage project delivery itself, as well as offer the private sector an opportunity to increase the capacity of the pipeline.

Partnerships UK was setup by HM Treasury and the private sector in 2000 “to support and accelerate the delivery of infrastructure renewal, high quality public services and the efficient use of public assets through better and stronger partnerships between the public and private sectors”. It ceased activity in 2011 following the creation of Infrastructure UK in June 2010. James Stewart’s leadership of Partnerships UK was noted to be key in it being viewed by the private and public sector alike as a very good thing.

Infrastructure UK has since become the IPA, but the role of Partnerships UK in upskilling government departments to deliver private finance initiatives has been lost along the way. Creating a procurement skills hub in the Cabinet Office would revive this important role and also enable it to oversee the work of the IPA.

---

59 Partnerships UK, 2011.
REFERENCE LIST


Arcadis, Talent Scale, 2017.

Cabinet Office and Rt Hon David Lidington CBE MP, Chancellor of the Duchy of Lancaster speech to Reform, 25 June 2018.


Construction Industry Training Board, MIGRATION AND CONSTRUCTION: The view from employers, recruiters and non-UK workers, June 2017.


HM Treasury, Managing Public Money.

HM Treasury and Infrastructure and Projects Authority, National Infrastructure and Construction Pipeline 2018.


Infrastructure and Projects Authority, Improving Infrastructure Delivery: Project Initiation Routemap, 2 June 2016.


Institution of Civil Engineers, Project 13, 2018.


Partnerships UK, 2011.


Public Services (Social Value) Act 2012.

The Infrastructure Forum's Procurement Working Group
Getting in touch

For further information please contact:

Charlotte Chase
Policy Analyst
The Infrastructure Forum
Tel: +44 (0)20 3174 3197
Email: charlotte.chase@infra.fm